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NEVADA DEPARTMENT OF TRANSPORTATION DISPARITY STUDY FINAL REPORT

December 6, 2013

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NDOT DISPARITY STUDY REPORT
Executive Summary

The federal government requires agencies such as the Nevada Department of Transportation (NDOT) to implement the Federal Disadvantaged Business Enterprise (DBE) Program. NDOT periodically conducts disparity studies to help it make decisions concerning its future operation of the Program for its federally-funded contracts. The last such study was completed in 2007. NDOT's operation of the federally-required DBE Program is guided by regulations in 49 Code of Federal Regulations (CFR) Part 26, USDOT guidance and court decisions.

NDOT engaged a team led by Keen Independent Research LLC (Keen Independent) to prepare the 2013 disparity study, which focuses on participation of minority- and women-owned firms (MBEs and WBEs) in NDOT's contracts from 2007 through June 2012. The disparity study also analyzes conditions for MBE/WBEs within the Nevada marketplace. The study examines steps to encourage utilization of all small businesses in NDOT contracts as well as programs specific to DBEs. Information from the disparity study will be useful as NDOT:

- Sets an overall annual goal for DBE participation in its FHWA-funded contracts for the next three years;
- Considers whether or not the overall DBE goal can be attained solely through neutral measures (or whether race- or gender-based measures are also needed); and
- Determines the specific race, ethnic and gender groups that may be eligible for any race- or gender-conscious program elements such as DBE contract goals.

NDOT's proposed operation[1] of the Federal DBE Program must then be reviewed and approved by the Federal Highway Administration (FHWA).

This Executive Summary discusses:

A. The history of NDOT's implementation of the Federal DBE Program;
B. Analyses provided in the 2013 Disparity Study;
C. Summary results from analyses of the Nevada marketplace and NDOT contracts;
D. Information to help NDOT set a new overall DBE goal; and
E. Summary results to help NDOT determine the measures it will use to operate the program.
F. Information in the Full Report.

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[1] "Operation" and "implementation" of the Federal DBE Program are used interchangeably in this report.

A. History of NDOT's Implementation of the Federal DBE Program

NDOT has been implementing variations of the Federal DBE Program and the regulations that preceded it since the 1980s. After enactment of the Transportation Equity Act for the 21st Century (TEA-21) in 1998, the U.S. Department of Transportation (USDOT) established a new Federal DBE Program to be implemented by state and local agencies receiving USDOT funds.

2005 *Western States Paving* decision. Many different groups have challenged the constitutionality of race- and gender-conscious programs such as the Federal DBE Program. The U.S. Supreme Court has ruled that a public agency implementing race-conscious measures is subject to the "strict scrutiny" standard of constitutional review, a difficult standard for a government entity to meet.

In 2005, the Ninth Circuit Court of Appeals in *Western States Paving v. Washington State DOT* held that the Federal DBE Program enacted by Congress was facially constitutional, but ruled that Washington State DOT's implementation of the Program was unconstitutional. The court held that in order to satisfy requirements of strict scrutiny, a public entity implementing race-conscious measures must have evidence of discrimination in its transportation contracting industry.[2]

In response to the *Western States Paving* decision, state and local agencies affected by the decision, including NDOT, discontinued use of race- and gender-conscious elements of the Federal DBE Program. The USDOT recommended that agencies implementing the Federal DBE Program conduct disparity studies.

2007 NDOT Availability and Disparity Study. NDOT first conducted a disparity study in 2007. The same consulting team leading the current NDOT study also conducted the 2007 Study.

2010 reinstatement of race- and gender-conscious contract goals. In 2010, FHWA directed NDOT to resume setting race- and gender-conscious goals on certain FHWA-funded contracts. NDOT began doing so in late 2010 for construction contracts, but only recently began setting DBE contract goals for engineering-related contracts.

Recent legal challenges. Since 2005, there have been other challenges to state DOTs' operation of the Program. In April 2013, the Ninth Circuit held that the California Department of Transportation's implementation of the Federal DBE Program was constitutional, based in large part on the disparity study completed for Caltrans.[3] The NDOT disparity study consulting team conducted the Caltrans study and helped Caltrans defend the program in court. The Caltrans study favorably considered by the Ninth Circuit and the NDOT disparity studies employ similar methodologies.

2011 USDOT requirement for a Small Business Program. USDOT required agencies operating the Federal DBE Program to develop a new Small Business Element that promotes the use of small businesses in USDOT-funded contracts. NDOT developed a plan in 2012, including small business contract goals in its program. It is now starting to implement the SBE Program.

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[2] Certain Federal Courts of Appeal, including the Ninth Circuit Court of Appeals, apply the "intermediate scrutiny" standard to gender-conscious programs. Appendix B describes the intermediate scrutiny standard in detail.

[3] *Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation, et al.* 713 F.3d 1187, 2013 WL 1607239 (9th Cir. April 16, 2013).

State authorization for an NDOT DBE Program on state-funded contracts. The federal government requires state DOTs and others receiving federal transportation funds to operate the Federal DBE Program for their USDOT-funded contracts. In 2013, the State authorized NDOT to extend the Federal DBE Program to state-funded transportation contracts.

Future developments. USDOT periodically revises elements of the Federal DBE Program and issues guidance concerning operation of the Program. Court decisions also provide insights as to proper operation of the Federal DBE Program. NDOT should closely follow such developments.

B. Analyses in the 2013 NDOT Disparity Study

The analyses performed in the disparity study include the following.

- Keen Independent examined data for more than 1,800 NDOT and Local Public Agency (LPA) Program transportation prime contracts and subcontracts from 2007 through June 2012.
- To analyze availability of minority-, women- and majority-owned firms for this work, the study team contacted more than 3,900 businesses to inquire whether they performed highway or other transportation work, and whether they were qualified and interested in NDOT or local government prime contracts or subcontracts. Based on these and other screening questions, the final availability database included more than 600 Nevada companies.
- The study team examined quantitative information concerning marketplace conditions using data from federal agencies, information from the availability interviews and other sources.
- Forty individuals participated in in-depth interviews and 228 more provided comments online or over the phone as part of availability interviews. NDOT also made a September 2013 draft report available for public comment and held public meetings in October 2013 to solicit input. Keen Independent augmented the study with this input before finalizing the report.

C. Marketplace and Disparity Analyses

Marketplace analyses. There is evidence of disparities in the Nevada marketplace for minorities and women, and minority- and women-owned firms, pertaining to entry and advancement; business ownership; access to business capital, bonding and insurance; and success of businesses. The quantitative analysis of marketplace conditions identified some evidence of disparities for each of the following groups (or firms owned by those groups):

- African Americans;
- Asian-Pacific Americans;
- Subcontinent Asian Americans;
- Hispanic Americans;
- Native Americans; and
- Women.

Keen Independent also identified qualitative evidence of discrimination against minority-owned businesses and women-owned businesses in the Nevada marketplace from in-depth interviews,

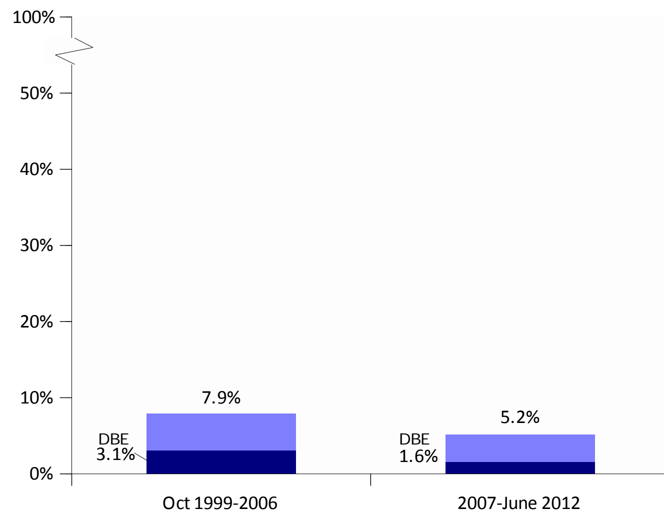
availability interviews, a 2010 disparity study conducted in Las Vegas and other sources. This includes evidence of a "good ol' boy" network in Nevada that appears to have a negative effect on opportunities for minority- and women-owned firms. Analysis of marketplace conditions also suggests that the severe economic downturn in Nevada had more of a negative effect on minority- and women-owned firms than other businesses.

Analysis of NDOT contracts. Keen Independent examined NDOT and LPA Program transportation contracts from 2007 through June 2012. As shown in Figure ES-1, minority- and women-owned firms received 5.2 percent of NDOT and LPA Program contract dollars during this period. DBE-certified firms accounted for 1.6 percentage points of that amount (the bottom part of the utilization bar in Figure ES-1). There was more utilization of non-certified minority- and women-owned firms.

Further analysis (not shown in Figure ES-1) indicated that utilization of WBEs (2.9%) exceeded MBEs (2.3%). Very little work went to African American-, Asian-Pacific American-, Subcontinent Asian American- and Native American-owned firms (combined utilization of 0.1%).

The 2007 Disparity Study reported 7.9 percent MBE/WBE utilization for October 1999 through 2006, higher than found for 2007-June 2012. NDOT did not use DBE contract goals from mid-2005 through late 2010.

Figure ES-1.
MBE/WBE and DBE share of prime contract/subcontract dollars for NDOT and LPA Program transportation construction and engineering contracts, Oct. 1999-June 2012



Note:

Certified DBE utilization.

Number of contracts/subcontracts analyzed is 1,896 for 2007-June 2012 and 2,574 for October 1999 through 2006.

For more detail and results by group, see Figure K-2 in Appendix K.

Source:

Keen Independent from data on NDOT and LPA Program contracts 2007-June 2012, and BBC Research & Consulting, Availability and Disparity Study, 2007.

Keen Independent compared the utilization results with information about the dollar-weighted availability of MBEs and WBEs for those contracts.

- There was a substantial disparity between MBE utilization (2.3%) and what might be expected from the availability analysis (6.2%).
- Utilization of WBEs (2.9%) far exceeded availability for those firms (1.2%).

The study team separately analyzed non-goals contracts as well as contracts that had DBE contract goals applied. Keen Independent also examined results for 2007-2009 compared with 2010 through

June 2012, as well as other subsets of contracts, including construction and engineering prime contracts. The following summarizes disparity results by MBE group and for WBEs.

African American-, Asian-Pacific American-, Subcontinent American- and Native American-owned firms. Overall as well as across nearly every subset of NDOT and LPA Program transportation contracts examined in the study, utilization was substantially below availability for:

- African American-owned firms;
- Asian-Pacific American-owned firms;
- Subcontinent Asian American-owned firms; and
- Native American-owned firms.

Firms owned by members of the above four groups received a total of 0.1 percent of NDOT and LPA Program contract dollars. This level of utilization was far less than what might be expected based on the relative availability of those firms to perform NDOT work. Combining availability results for the four groups, one might expect those firms to have received 3.8 percent of the contract dollars. The resulting disparity index was 3, where a value of 100 indicates "parity," and a value of 80 indicates a "substantial disparity."[4] There were substantial disparities for each of the above groups.

Hispanic American-owned firms. Utilization of Hispanic American-owned firms (2.2%) was somewhat below what might be expected from the availability analysis (2.4%) considering all NDOT and LPA Program transportation contracts. This was not a substantial disparity (disparity index was not below 80).

However, there was a substantial disparity in the utilization of Hispanic American-owned firms for the most recent portion of the study period — 2010 through June 2012 — even with the DBE contract goals program in place for much of that time. Hispanic American-owned firms received 1.4 percent of contract dollars during these years, one-half of what might be expected from the availability analysis (disparity index of 50).

The economic downturn had a large negative effect on firms in the transportation contracting industry in Nevada, and there is evidence that MBEs and WBEs, on balance, were more affected than other firms. Although the relative number of Hispanic American-owned firms in the Nevada transportation contract industry did not decline between 2007 and 2013, their overall dollar-weighted availability for NDOT contracts did (after considering the types, sizes, locations and timing of prime contracts and subcontracts).

NDOT should review all of the disparity results for Hispanic American-owned firms provided in the report; the large disparities for Hispanic American-owned firms in the most recent time period may be important when determining whether Hispanic American-owned firms will be included in any future race-conscious programs.

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[4] To calculate a disparity index, Keen Independent divided percentage utilization by percentage availability and then multiplied by 100. For example, 0.1% utilization divided by 3.8% availability is .03. Multiplying by 100 gives a disparity index of 3. Disparity index is a method courts use to examining the severity of a disparity. Some courts deem a disparity index below 80 as being "substantial" and have accepted it as evidence of adverse impacts against MBE/WBEs.

White women-owned firms. The discussion below presents results for companies owned by non-Hispanic white women.[5]

All NDOT and LPA Program contracts. In general, WBE utilization exceeded what might be expected based on dollar-weighted availability of white women-owned firms for those contracts.

- Overall utilization of white women-owned firms (2.9%) was more than twice as high as might be expected based on the availability of WBEs for that work.
- WBE utilization exceeded availability when considering the 2010 through June 2012 time period and for non-goals contracts for the study period.
- Although small, utilization of WBEs as prime contractors on NDOT and LPA Program construction contracts still exceeded WBE availability for that work.

Engineering contracts. There was one area of very large disparities for both MBEs and WBEs — engineering-related work. WBEs received only 0.1 percent of NDOT and LPA Program engineering contract dollars during the study period.[6] The resulting disparity index for WBEs was 9, far more severe than the "80" level that would indicate a substantial disparity. (There were similar disparities for MBEs on engineering contracts.)

There was also some qualitative information that indicated gender-based barriers that could affect the success of women-owned firms when pursuing engineering-related work in Nevada and at NDOT.

Conclusions from the marketplace and disparity analyses. When determining how to operate the Federal DBE Program for the coming years, NDOT should examine the comprehensive quantitative and qualitative information for both the marketplace and NDOT contracts. There appears to be:

- A continued need for NDOT efforts to open contracting opportunities to small businesses in general.
- Quantitative and qualitative evidence that minority-owned firms in the Nevada transportation contracting industry are at a disadvantage in the marketplace and when pursuing NDOT and LPA Program work. (This evidence includes disadvantages and disparities for each MBE group included in the Federal DBE Program.)
- Quantitative and qualitative evidence that white women-owned firms in the Nevada transportation contracting industry are at a disadvantage in the marketplace, and when pursing NDOT and LPA Program engineering-related work.

As it operates the Federal DBE Program in the future, NDOT should consider these results when determining DBE groups eligible to meet DBE contract goals.

[5] The disparity results for minority-owned firms include businesses owned by minority women, which are most relevant disparity results when determining inclusion of minority women in any future race- or gender-conscious programs.

[6] MBE utilization on NDOT and LPA Program engineering-related contracts was only 0.2 percent.

- With the narrow-tailoring requirements in the Ninth Circuit decisions, NDOT might consider requesting a waiver from FHWA that would allow it to only include minority-owned DBEs as eligible to meet DBE contract goals (to address utilization of WBEs on NDOT contracts that is more than twice WBE availability).
- Although there was no disparity in WBE utilization in NDOT contracts overall, NDOT faces the unique situation of nearly 0 percent utilization for white women-owned firms in its engineering-related contracts. It is recommended that NDOT consult with FHWA to identify an appropriate response in accordance with Federal DBE Program requirements and relevant court decisions.

NDOT should review these results and other information as it determines how it will operate the Federal DBE Program during the next years.

D. Overall DBE Goal

NDOT must prepare and submit an overall DBE goal for the next three fiscal years, supported by information about the steps used to develop the overall goal. Federal regulations require that NDOT first establish a base figure and then consider "step 2" adjustments when developing the goal.

Analysis of MBE/WBE availability. Minority- and women-owned businesses comprised 25 percent of firms identified as available for work on NDOT and LPA Program transportation contracts, similar to the result in the 2007 Disparity Study.

However, dollar-weighted availability of MBE/WBEs for NDOT work is much lower after accounting for NDOT's dollars of prime contracts and subcontracts by type, location and size of work and the availability of MBEs, WBEs and majority-owned firms reported concerning that work. [7]

Base figure and step 2 adjustment. Establishing a base figure is the first step in calculating an overall annual goal for DBE participation in NDOT's FHWA-funded transportation contracts. The Federal DBE Program then requires that agencies consider step 2 adjustments when determining an overall DBE goal.

- Keen Independent calculated a base figure, focusing on potential DBEs (including currently-certified DBEs). Analysis indicates that the dollar-weighted availability of potential DBEs for NDOT FHWA-funded transportation contracts is 4.5 percent.
- After analyzing relevant step 2 factors, there is support for NDOT to consider an upward step 2 adjustment and set an overall DBE goal at 6.98 percent.

NDOT's overall goal is 10.48 percent for the most recent three fiscal years ending FFY 2013.

The disparity study report explains why an overall DBE goal in the range of 6.98 percent may be appropriate given current availability information. As discussed below, NDOT has not consistently achieved nearly this level of DBE participation in the past.

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[7] According to information provided by businesses in the availability interviews completed as part of this study.

E. Measures to Achieve the Overall DBE Goal

The Federal DBE Program requires agencies to meet the maximum feasible portion of their overall DBE goal through race- and gender-neutral means of facilitating DBE participation. Examples of neutral measures include making contracts smaller and more accessible to small contractors, outreach to small businesses and DBEs, technical assistance, and small business contract goals. NDOT has implemented a broad range of neutral measures. Keen Independent recommends that NDOT consider additional neutral measures, some of which would require a change to state law. Examples of these initiatives are discussed at the end of this Executive Summary, and in detail in the full report.

Only if neutral means will not be sufficient to meet the overall DBE goal can NDOT use race- and gender-conscious programs such as DBE contract goals.

Can NDOT meet its overall DBE goal solely through neutral means? NDOT will first need to consider whether it can achieve the entire overall DBE goal through neutral means alone. Such a determination depends in part on the level of its overall DBE goal. If its overall DBE goal is in the range of 6.98 percent, the evidence from the disparity study suggests that NDOT might not meet it solely through neutral means:

- There is evidence of discrimination within the local transportation contracting marketplace for each racial, ethnic and gender group.
- NDOT reported DBE participation of 0.1 percent in two recent fiscal years when it did not use race- or gender-conscious measures. Overall DBE utilization in years that it operated an entirely neutral program was around 1 percent.
- NDOT has extensive neutral measures in place. However, even with the combination of race- and gender-neutral remedies and DBE contract goals, NDOT did not meet its overall DBE goal and there were still disparities in overall MBE/WBE utilization on NDOT contracts.

How much of the overall DBE goal can NDOT project to be met through neutral means?
NDOT faces two additional challenges when determining how much participation of certified DBEs it can achieve through neutral means:

1. Quantifying the impact of its neutral measures on small business participation, and then on DBE utilization; and
2. Determining whether it can encourage MBEs and WBEs that are eligible for DBE certification to apply for certification so that they can be counted as DBEs.

Counting only firms certified as DBEs at the time, NDOT achieved about 1 percent DBE participation through neutral means. Including one larger WBE that only became DBE-certified in 2013, neutral participation would have been closer to 3 percent.[8].

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[8] If NDOT had been able to count all potential DBEs (combining certified firms and MBE/WBEs that appeared to be eligible for DBE certification), the estimate of DBE participation through neutral means would be 4.6 percent. In the Nevada transportation contracting industry, only one out of four MBE/WBEs that appear to be eligible for DBE certification are currently certified as DBEs. NDOT might further encourage eligible firms to apply for DBE certification.

Firms performing NDOT work that have not been DBE certified are:

- Counted in the setting of an overall DBE goal; but
- Not counted (in accordance with the federal regulations) in the participation reports used to measure whether the overall DBE goal has been attained.

Therefore, one of the reasons that NDOT has not met its overall DBE goal in past years is that its reporting of DBE participation only includes those firms that are DBE-certified. When reporting DBE participation to USDOT, agencies can explore whether they have not met their overall DBE goal, in part, because of participation of firms that could potentially be DBE-certified but are not.[9]

Examples of program elements. Keen Independent identified a number of additional neutral initiatives for NDOT consideration. Examples include:

- **Encouraging additional subcontracting.** Interviewees in the 2013 Study indicated that prime contractors try to keep more of the work, and subcontract less, during adverse market conditions. One approach to promote subcontracting is setting a mandatory subcontracting minimum for specific contracts (a City of Los Angeles program).

- **Modifying construction contractor prequalification.** As the full report discusses in detail, both the State Contractors' Board licensing process and NDOT's prequalifications process limit the size of construction contracts that a company can bid. The current processes consider factors that may reinforce any race or gender discrimination in the marketplace such as discrimination affecting access to capital and business success. Changes might require the State to amend statutes governing contractors' licenses and NDOT prequalification procedures.

- **Changes to the state law authorizing local preferences in bidding.** The disparity study included measures to remove barriers to MBE/WBEs obtaining state-funded contracts. Current state law providing for local preference on state-funded contracts may disadvantage small or new businesses. Any changes would require action by the State.

- **Set-asides and bid preferences that could encourage use of small businesses for smaller construction contracts.** NDOT's new Small Business Element envisions this program. NDOT should consider seeking changes to state law that might limit its application.

- **Unbundling of NDOT contracts.** NDOT's informal bidding process for construction contracts up to $250,000 has helped to open opportunities for MBE/WBE prime contractors. NDOT should attempt to unbundle work so that more contracts fall under $250,000. NDOT might seek State authorization to increase the size of contracts that can be bid through the informal process. It should also seek to identify smaller consulting contracts and encourage proposals from MBE/WBEs for that work.

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[9] USDOT then might expect an agency to explore methods to further encourage potential DBEs to become DBE certified as one way of closing the gap between reported DBE participation and its overall annual DBE goal. This information is based on instructions from USDOT staff at the 2011 National Civil Right Symposium held at USDOT offices in Washington, D.C. on December 8, 2011.

- **Creating a small business advocate position.** Creation of a small business liaison or advocate position was an initiative recommended by interviewees in the 2007 Study. Businesses interviewed in the 2013 Study continued to support this idea.

- **Reinstituting a mentor-protégé program.** The Nevada Chapter of the AGC once operated a mentor-protégé program with some success. NDOT should review whether a mentor protégé program could be re-started in Nevada. Many interviewees thought a mentor-protégé program would be very valuable as long as larger firms had responsibilities or incentives to serve as effective mentors.

NDOT should also examine staffing, training and information systems necessary to improve its operation of the Federal DBE Program. It can only effectively operate the Federal DBE Program if it has sufficient resources devoted to the Program.

Monitoring and addressing potential overconcentration of DBE participation. The Federal DBE Program requires that non-DBEs must not be unfairly prevented from competing for subcontracts because of operation of the Program. Therefore, state and local agencies operating the Federal DBE Program must address any identified overconcentration of DBEs in certain types of work.

Keen Independent analyzed this issue by examining DBE participation by type of work for years after the DBE contract goals program was reinstated (2011 through June 2012).

- Trucking accounted for 40 percent of DBE dollars in those years.
- Within NDOT trucking work, DBEs were awarded more than 50 percent of the dollars.
- NDOT might also have overconcentration in two smaller fields as well — materials testing and erosion control.

However, Keen Independent's analysis of firms available for these three types of work shows that non-DBEs in these fields might not be dependent on NDOT for work. NDOT should continue to monitor whether the Federal DBE Program places undue burdens on non-DBEs in specific fields. There are actions NDOT might consider to address any potential overconcentration, as discussed in the full report.

F. Information in the Full Report

There is substantially more quantitative and qualitative information in the full report, which NDOT should review when making decisions about its future operation of the Program.

CHAPTER 1.
Introduction

The federal government requires state and local governments to operate the Federal Disadvantaged Business Enterprise (DBE) Program if they receive U.S. Department of Transportation (USDOT) funds for transportation projects. The Nevada Department of Transportation (NDOT) has been operating some version of the Federal DBE Program since the 1980s. The USDOT recommends that agencies such as NDOT conduct disparity studies to develop the information needed to effectively operate the Program.

- NDOT must set overall goals for DBE participation in its USDOT-funded contracts. Some of the information most useful in setting overall DBE goals and fine-tuning program operation requires the types of research developed in a disparity study.
- When challenged in court, state and local agencies that have successfully defended their operation of the Federal DBE Program relied on the types of information developed in a disparity study.
- The study can provide insights into improving opportunities for all small businesses.
- An independent, objective review of an agency's contracting is valuable to its leadership and outside groups interested in the agency's practices.

In 2012, NDOT retained Keen Independent Research LLC (Keen Independent) to conduct a disparity study that would help it operate the Federal DBE Program. The analysis is referred to as a "disparity study" because it examines whether there is a disparity between an agency's *utilization* of minority- and women-owned firms and what would be expected based on *availability* of minority- and women-owned firms to perform this work. The study incorporates other quantitative and qualitative information as well. NDOT last conducted a disparity study in 2007.

Results of this disparity study will help NDOT operate the Federal DBE Program for its contracts funded in whole or in part by the Federal Highway Administration (FHWA). The Federal DBE Program also applies to contracts funded by the Federal Transit Administration (FTA) and Federal Aviation Administration (FAA). Because NDOT receives relatively little funding from the FTA and FAA, the study did not focus on those contracts. Information from the disparity study is also useful to NDOT as it seeks to ensure a non-discriminatory environment for its state-funded contracting.

In Chapter 1, Keen Independent:

A. Introduces firms that prepared the study;

B. Provides background on the Federal DBE Program; and

C. Outlines the analyses performed in the study and where results appear in the report.

A. Study Team

The Keen Independent study team includes six companies.

Figure 1-1.
2013 NDOT Disparity Study team

Firm	Location	Team Leader	Responsibilities
Keen Independent Research LLC, prime consultant	Denver, CO Wickenburg, AZ	David Keen Principal	All study phases
Holland & Knight LLP (H&K)	Atlanta, GA	Keith Wiener Partner	Legal analysis, overall review
BBC Research & Consulting (BBC)	Denver, CO	Kevin Williams Director	Statistical analyses
MKJ Consulting	Las Vegas, NV	Megan Jones Principal	In-depth business interviews
Customer Research International (CRI)	San Marcos, Texas	Michelle Vrudhula Vice President	Telephone interviews
Aspen Media and Market Research	Boulder, Colorado	Trey Cowhig Vice President	Telephone interviews

Each of these team members has extensive experience with state departments of transportation and other agencies operating the Federal DBE Program. Team leaders from Keen Independent, H&K and BBC helped to successfully defend DBE and minority business enterprise programs in court.

B. Background on the Federal DBE Program

NDOT has been operating some version of a Federal DBE Program since the 1980s. After enactment of the Transportation Equity Act for the 21st Century (TEA-21) in 1998, USDOT established a new Federal DBE Program to be operated by state and local agencies receiving USDOT funds. It was most recently revised in early 2011.

Federal regulations in 49 CFR Part 26 guide how state and local governments operate the Federal DBE Program. If necessary, under the federal regulations, the Program allows state and local agencies to use DBE contract goals, which NDOT sets on certain FHWA-funded contracts. When awarding those contracts, in accordance with federal regulations, NDOT considers whether or not a bidder meets the DBE contract goal or shows good faith efforts to do so.

The Federal DBE Program also applies to cities, counties, transportation authorities and other jurisdictions that receive USDOT funds through agencies such as NDOT.

Key elements of the Program. Key components of the Federal DBE Program include the following elements.

Setting an overall goal for DBE participation. NDOT must develop an overall three-year goal for DBE participation in its FHWA-funded contracts. The Federal DBE Program sets forth the steps an agency must follow in establishing its goal, including development of a "base figure" and consideration of possible "step 2" adjustments to the goal.[1] NDOT's next DBE goal submission will be for the three federal fiscal years beginning October 2013.

NDOT's overall goal for DBE participation is aspirational — the Department does not need to meet the goal and failure to do so does not automatically cause any USDOT penalties. However, if NDOT does not meet its overall DBE goal, federal regulations require it to analyze the reasons for any shortfall and develop a corrective action plan to meet the goal in the next fiscal year.[2] NDOT's goal for the three-year period beginning October 2010 is 10.48 percent DBE participation.

Establishing the portion of the overall DBE goal to be met through neutral means. Regulations governing operation of the Federal DBE Program allow for state and local governments to operate the program without the use or with limited use of race- or gender-based measures such as DBE contract goals. According to program regulations 49 CFR Section 26.51, a state or local agency must meet the maximum feasible portion of its overall goal for DBE participation through "race-neutral means." Race-neutral program measures include removing barriers to participation of firms in general or promoting use of small or emerging businesses (see 49 CFR Section 26.51(b) for more examples of race-neutral program measures). If an agency can meet its goal solely through race-neutral means, it must not use race-conscious program elements.

The Federal DBE Program requires that an agency project the portion of its overall DBE goal that it will meet through neutral measures and the portion, if any, that it will meet through any race-conscious measures such as DBE contract goals. USDOT has outlined a number of factors for an agency to consider when making that determination.[3]

Many states project that they will meet their overall DBE goal through a combination of race-neutral and race-conscious measures. Some state and local agencies have operated the Federal DBE Program solely through neutral measures and without the use of DBE contract goals (state DOTs in Florida, Wyoming and Rhode Island are examples). These agencies projected that 100 percent of their DBE goal will be met through neutral means.

NDOT's most recent projection related to FHWA-funded contracts is that it will meet 1.53 percentage points of its overall three-year DBE goal through race-neutral means and the balance through race-conscious measures.

[1] 49 CFR Section 26.45.

[2] 49 CFR Section 26.47.

[3] See Chapter 11 of this report for an in-depth discussion of these factors.

Determining whether all racial/ethnic/gender groups will be eligible for race or gender-conscious elements of the Federal DBE Program. Under the Federal DBE Program, the following race/ethnic/gender groups can be presumed to be disadvantaged as long as they do not exceed firm revenue and personal net worth limits:

- Black Americans (or "African Americans" in this study);
- Hispanic Americans;
- Native Americans;
- Asian-Pacific Americans;
- Subcontinent Asian Americans; and
- Women of any race or ethnicity.

There is a gross receipts limit (not more than $22,410,000 annual average revenue over three years, and lower limits for certain lines of business) and a personal net worth limit ($1.32 million, not including equity in the business and in primary personal residence) that firms and firm owners must fall below to be able to be certified as a DBE.[4] White male-owned firms and other ethnicities not listed above can also meet the federal certification requirements and be certified as DBEs if they demonstrate they are both socially and economically disadvantaged, as described in 49 CFR Part 26.67 (d). (Nationally, few DBEs are white male-owned firms.)

NDOT's current operation of the Program, similar to most states, includes each of the above groups as eligible for race- and gender-conscious portions of the program, including meeting DBE contract goals. However, USDOT provides a waiver provision if an agency determines that it does not need to include certain racial/ethnic/gender groups in the race- or gender-conscious portions of the Federal DBE Program. Some state DOTs have set contract goals for "Underutilized DBEs" (UDBEs), which does not include all DBE groups. These states count the participation of all DBEs toward their overall DBE goals, but only UDBEs can be used to meet individual contract goals. Each state determined the DBE groups that were UDBEs in part by examining results of disparity analyses for each racial/ethnic/gender group.

Promoting DBE participation as prime contractors. The Federal DBE Program calls for agencies to remove any barriers to DBE participation as prime contractors, but does not require agencies to operate programs that give preference to DBE primes. Quotas are prohibited, but under extreme circumstances, an agency can request USDOT approval to use preference programs related to prime contractors.

The Federal DBE Program requires agencies such as NDOT to develop programs to assist all small businesses.[5] For example, small business preference programs, including reserving contracts on which only small businesses can bid, are allowable under the Federal DBE Program.

Promoting MBE/WBE participation as subcontractors. In accordance with federal regulations and subject to USDOT approval, an agency can decide that it will use DBE contract goals as part of its

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[4] 49 CFR 26 Subpart D.

[5] 49 CFR Section 26.39.

operation of the Federal DBE Program. NDOT currently uses DBE contract goals for certain FHWA-funded contracts.

Past court challenges to the Federal DBE Program and to state and local agency operation of the Program. Although agencies are required to operate the Federal DBE Program in order to receive USDOT funds, different groups have challenged program operation in court.

- A number of courts have held the Federal DBE Program to be constitutional, as discussed in Chapter 2 and Appendix B of this report.

- State transportation departments in California, Illinois, Minnesota and Nebraska successfully defended their operation of the Federal DBE Program, as have several local agencies. The Washington State Department of Transportation was not able to successfully defend its operation of the Federal DBE Program. Chapter 2 and Appendix B also review these legal cases.

In *Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation,* the Ninth Circuit Court of Appeals examined the methodology and results of the disparity study David Keen and BBC staff prepared for the California Department of Transportation. As discussed in more detail in Appendix B, the Ninth Circuit favorably reviewed the methodology and the quantitative and qualitative information provided in the disparity study and determined that the information justified Caltrans' operation of the Federal DBE Program. Keen Independent applies a methodology in the NDOT disparity study that is very similar to what the court favorably reviewed in the Caltrans case.

C. Analyses Performed in the Disparity Study

The NDOT disparity study provides information to assist NDOT as it:

1. Establishes a new three-year goal for DBE participation in its FHWA-funded contracts;

2. Estimates the portion of its overall DBE goal to be met through race- and gender-neutral means and any portion to be met through race- and gender-conscious means;

3. Chooses the specific measures it will apply when implementing the Program; and

4. Considers the specific racial/ethnic/gender groups of DBEs eligible for DBE contract goals if it determines that it will continue to implement race-conscious measures.

The information is also useful to NDOT as it seeks to ensure fairness across all of its contracting, including non-FHWA-funded contracts.

Utilization, availability and disparity analyses. Disparity studies typically include analyses of whether there is a disparity between the utilization and availability of minority-and women-owned firms (MBE/WBEs).

- "Utilization" typically refers to the percentage of contract dollars (including subcontracts) that went to MBEs and WBEs during the study period. (Percentage of *dollars* has been accepted in courts as an appropriate way of measuring utilization.)

- "Availability" refers to the percentage of contract dollars that one might expect to go to MBEs and WBEs given the number of MBEs and WBEs (relative to all firms) available for specific types and sizes of prime contracts and subcontracts. Understanding firms "ready, willing and able" to perform an agency's contract or subcontract is an important component of the availability analysis.

Keen Independent includes both certified and non-certified minority- and women-owned firms in the utilization and availability results so that the disparity analysis would pertain to any potential barriers related to race, ethnicity or gender of the business owner.[6] The study further disaggregates utilization and availability of minority-owned firms according to the minority groups defined within the Federal DBE Program.[7]

Utilization analysis. Keen Independent analyzed the utilization of minority- and women-owned firms on transportation construction and engineering-related contracts that NDOT awarded from January 2007 through June 2012. The study team examined both prime contracts and subcontracts.

Keen Independent separated NDOT contracts into those that were FHWA-funded (in whole or in part) and those that were solely funded through state monies. After four years of no DBE contract goals on NDOT contracts, FHWA directed NDOT to set DBE contract goals on its FHWA-funded contracts beginning in 2010.

The study team identified the race/ethnicity/gender ownership of firms receiving NDOT contracts and subcontracts through sources including DBE and other certification databases and interviews with owners and managers of those businesses. Keen Independent reports utilization in two ways:

- The percentage of NDOT contract dollars going to certified DBEs (for informational purposes); and
- The percentage of contract dollars going to all minority- and women-owned firms whether or not they were DBE-certified (for use in the disparity analysis).

Keen Independent also collected and analyzed information on contracts that local agencies award with the FHWA and state funds they receive through NDOT. Chapter 3 of the report summarizes study team efforts to collect NDOT contract data, with Appendix C providing additional detail. Chapter 6 presents results of the utilization analysis.

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[6] If the disparity analysis were conducted based only on currently certified DBEs, conclusions could not be drawn about the effectiveness or need for programs to assist minority- and women-owned firms.

[7] To further isolate the possible effects of race/ethnicity versus gender, "WBEs" refers to white women-owned firms in the disparity study. Firms owned by minority women are included in the utilization and availability results for minority-owned firms.

Availability analysis. The availability analysis provides a benchmark to use when assessing NDOT's utilization of minority- and women-owned firms. It also produces information for NDOT to consider when setting its three-year goal for DBE participation on FHWA-funded contracts.

Keen Independent analyzed availability of MBEs and WBEs on a contract-by-contract basis for NDOT prime contracts and subcontracts from 2007 through June 2012. Overall availability figures were then developed by adding the dollar-weighted results of the availability analysis for individual prime contracts and subcontracts.

Keen Independent identified information such as type of work, size, location and date for each individual prime contract and subcontract from NDOT contract records. About 1,800 prime contracts and subcontracts were examined.

The study team collected information on the availability of minority- and women-owned businesses and other firms to perform specific types and sizes of prime contracts and subcontracts in different locations by interviewing Nevada companies about their qualifications and interest in NDOT work.[8] The study team successfully contacted several thousand business establishments by telephone or other means as part of this research.

- Keen Independent determined the percentage of firms available to perform each prime contract and subcontract that were minority- or women-owned.
- Keen Independent then dollar-weighted the results for individual prime contracts and subcontracts across all NDOT contracts.
- The resulting availability estimates are expressed as the percentage of NDOT contract dollars that might be expected to go to minority- and women-owned firms if they had the same opportunities as other firms (given their respective qualifications and interest in NDOT work).

Chapter 5 describes the methods used to collect and analyze availability of minority-, women- and majority-owned firms, and also presents information on NDOT's "base figure" for its overall DBE goal. Appendix D provides further information about the availability interviews with Nevada businesses.

Disparity analysis. Keen Independent compared utilization and availability of minority- and women-owned firms to prepare the disparity analyses. The study team examined:

- NDOT and local agency contracts which included DBE contract goals); and
- Non-goals NDOT and local agency contracts (including all state-funded contracts and many FHWA-funded contracts).

[8] Because nearly all of NDOT contract dollars go to firms with Nevada locations, the relevant geographic market area for this analysis was Nevada. Telephone interviews with businesses potentially available for NDOT contracts were made with firms that had locations in Nevada.

Chapter 7 of the report outlines the approach to the disparity analysis and reviews key results. Chapter 8 and Appendix K provide additional analyses.

Analysis of local marketplace conditions. The study team also examined conditions within the Nevada marketplace. In accordance with USDOT guidance, Keen Independent analyzed:

- Any evidence of barriers for minorities and women to enter and advance in their careers in the construction and engineering industries in Nevada (Appendix E);
- Any differences in rates of business ownership in Nevada (discussed in Appendix F);
- Access to business credit, insurance and bonding (Appendix G);
- Any differences in measures of business success and access to prime contract and subcontract opportunities (Appendix H); and
- Certain other issues potentially affecting minorities and women in the local marketplace.

Chapter 4 of the report synthesizes this information about the local marketplace, including comments from telephone interviews with business owners and managers, a review of complaints made with NDOT concerning DBE issues, results of in-depth personal interviews with business owners and trade associations, and comments received during or after public meetings held in October 2013 (see Appendix J).

A draft report was posted on the study website in early September 2013 to solicit comments from the public. The public comment period was held open into November 2013. The disparity study team received written comments and feedback by phone, and reviewed those comments as well with the public meeting comments when preparing the final report. Information from this outreach effort is summarized in Appendix J as well as in individual chapters of the report.

Chapter 9 of the report summarizes the disparity analyses and research about the local marketplace.

Information regarding NDOT's future operation of the Federal DBE Program. NDOT can consider disparity study information presented in Chapter 10 as it develops its new three-year goal for DBE participation. The information in Chapter 11 is pertinent as NDOT projects the portion of its goal to be met through neutral means. Chapter 12 of the report reviews other components of NDOT's operation of the Federal DBE Program.

Presentation of results in the study. Report chapters provide information to help NDOT make decisions concerning its operation of the Federal DBE Program.

Figure 1-2.
Chapters in the disparity study report

Chapter	Description
ES. Executive Summary	Brief summary of study results
1. Introduction	Study purpose, study team and overview of analyses
2. Legal Framework	Summary of Federal DBE Program regulations and relevant court decisions
3. NDOT Transportation Contracts	How the study team collected NDOT and local agency contract data and defined the geographic area and transportation contracting industry
4. Marketplace Conditions	Summary of quantitative and qualitative information about the Nevada transportation contracting marketplace
5. Availability Analysis	Methodology and results regarding availability of minority- and women-owned firms for NDOT contracts and subcontracts
6. Utilization Analysis	Utilization of minority- and women-owned firms (and DBEs) on NDOT contracts
7. Disparity Analysis	Comparisons of MBE and WBE utilization and availability
8. Further Exploration of Any Disparities	Exploration of possible causes of any disparities
9. Summary of Evidence from Marketplace and Disparity Analyses	Summary of quantitative and qualitative information from marketplace and disparity analyses
10. NDOT's Overall DBE Goal	Information for NDOT to review when setting a three-year overall DBE goal, including consideration of a "step 2 adjustment"
11. Portion of DBE Goal to be Met through Neutral Means	Information helpful when determining the percentage of overall DBE goal to be met through neutral means
12. NDOT's Implementation of the Federal DBE Program	Other information related to NDOT operation of the Federal DBE Program

In addition to the chapters described above, 11 report appendices provide supporting information concerning study methodology and results.

CHAPTER 2.
Legal Framework

The legal framework for this disparity study is based on applicable regulations for the Federal DBE Program and other sources, including the Official USDOT Guidance, court decisions related to the Federal DBE Program and relevant court decisions concerning challenges to minority- and women-owned business programs. The applicable federal regulations are located at Title 49 of the Code of Federal Regulations (CFR) Part 26.

Since the 1980s, non-minority contractors and other groups have filed lawsuits challenging the constitutionality of the Federal DBE Program and individual state and local agencies' operation of the Program. Figure 2-1 on the following page summarizes some of these legal challenges.

- In all but one instance, the state DOT was successful in defending against the legal challenge.
- Western States Paving Company, however, was successful in challenging the Washington State Department of Transportation's implementation of the Federal DBE Program.
- Many state and local agencies, especially those in the West, changed their operation of the Program to comply with the United States Ninth Circuit Court of Appeals decision in this case, in accordance with the Official USDOT Guidance issued after the decision.

Each of the lawsuits identified in Figure 2-1 pertains to state DOT operation of the Federal DBE Program for USDOT-funded contracts. Court decisions regarding local government implementation of the Federal DBE Program are important as well.

Groups have also challenged state departments of transportation and other agencies that implement similar programs for their state- or locally-funded contracts (including California, North Carolina and Florida). Appendix B of this report provides detailed analysis of relevant legal decisions and federal regulations.

Figure 2-1. Legal challenges to state department of transportation implementation of the Federal DBE Program

State	Successfully defended operation of Federal DBE Program	Unsuccessfully defended operation of Federal DBE Program	Ongoing litigation at time of report	Discussed in detail in report
California	*Associated General Contractors of America, San Diego Chapter v. California DOT*[1]			Page 26 of Appendix B
Illinois	*Northern Contracting, Inc. v. State of Illinois*[2]		*Midwest Fence Corp. v. United States DOT, Illinois DOT, et al.*[3]	Page 48 of Appendix B
Kansas	*Klaver Construction, Inc. v. Kansas DOT*[4]			Page 75 of Appendix B
Minnesota	*Sherbrooke Turf, Inc. v. Minnesota Department of Transportation*[5]		*Geyer Signal, Inc., et al. v. Minnesota DOT, U.S. DOT, Federal Highway Administration, et al.*[6]	Page 58 of Appendix B
Montana			*Mountain West Holding Company, Inc. v. State of Montana; Montana DOT, et al.*[7]	Page 23 of Appendix B
Nebraska	*Gross Seed Company v. Nebraska Department of Roads*[8]			Page 58 of Appendix B
Washington		*Western States Paving Co., v. Washington State DOT*[9]		Page 40 of Appendix B

Case citations:

[1]*Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation*, *et al.*, 713 F. 3d 1187, 2013 WL 1607239 (9th Cir. April 16, 2013).

[2]*Northern Contracting, Inc. v. Illinois*, 473 F.3d 715 (7th Cir. 2007).

[3]*Midwest Fence Corp. v. United States DOT, Illinois DOT, et al.*, 2011 WL 2551179 (N.D. Ill. June 27, 2011).

[4]*Klaver Construction, Inc. v. Kansas DOT*, 211 F. Supp.2d 1296 (D. Kan. 2002). (Court granted motion to dismiss based on lack of standing.)

[5]*Sherbrooke Turf, Inc. v. Minnesota Department of Transportation*, 345 F.3d 964 (8th Cir. 2003), *cert. denied*, 541 U.S. 1041.

[6]*Geyer Signal, Inc., et al. v. Minnesota DOT, U.S. DOT, Federal Highway Administration, et al.*, Case No. 11-CV-321.

[7]*Mountain West Holding Company, Inc. v. State of Montana; Montana DOT, et al.* U.S. District Court, District of Montana (Billings), Case No. CV 13-49-BLD-DLC.

[8]*Gross Seed Company v. Nebraska Department of Roads*, 345 F.3d 964 (8th Cir. 2003), *cert. denied*, 541 U.S. 1041.

[9]*Western States Paving Co. v. Washington State DOT*, 407 F.3d 983 (9th Cir. 2005), *cert. denied*, 546 U.S. 1170 (2006).

To understand the legal context for the disparity study, it is useful to review:

A. The Federal DBE Program;

B. Similar state and local programs across the country; and

C. Legal standards that race- and gender-conscious programs must satisfy.

A. The Federal DBE Program

The Federal DBE Program includes a number of requirements for state and local governments implementing the program. Three important requirements are:

- Setting overall goals for DBE participation in USDOT-funded contracts. (49 CFR Section 26.45)

- Meeting the maximum feasible portion of the overall DBE goal through race- and gender-neutral means. (49 CFR Section 26.51)

  - Race- and gender-neutral measures include removing barriers to the participation of businesses in general or promoting the participation of small or emerging businesses.

  - If an agency can meet its overall DBE goal solely through race- and gender-neutral means, it must not use race- and gender-conscious measures as part of its implementation of the Federal DBE Program.

- Appropriate use of race-and gender-conscious measures such as contract-specific DBE goals. (49 CFR Section 26.51)

  - Because such program measures are based on the race or gender of business owners, their use must satisfy stringent legal and regulatory standards in order to be legally valid.

  - Measures such as DBE quotas are prohibited, and DBE set-asides may only be used in limited and extreme circumstances (49 CFR Section 26.43).

  - Some state DOTs have restricted eligibility to participate in DBE contract goals programs to certain racial/ethnic/gender groups based on the evidence of discrimination in the state's transportation contracting industry.

Figure 2-2 on the following page summarizes the general approaches that state departments of transportation use to implement the Federal DBE Program:

- All state DOTs set an overall goal for DBE participation.

- All state DOTs use certain neutral measures to encourage DBE participation.

- Many state DOTs use race- and gender-conscious measures such as DBE contract goals to help meet their overall DBE goal.

- Some state DOTs limit participation in race- and gender-conscious programs such as DBE contract goals to those DBE groups for which there is evidence of discrimination in the state transportation contracting industry (sometimes called "underutilized DBE" or "UDBE" contract goals programs).

- A few states such as the Florida Department of Transportation implement the Federal DBE Program solely using neutral measures.

Because an individual state DOT sometimes adjusts how it implements the Program, the examples discussed in this Chapter might change after release of this report.

Figure 2-2. Examples of state DOT implementation of the Federal DBE Program

			Race- and gender-conscious measures			
	Set overall DBE goal	**Neutral measures***	**DBE contract goals**	**DBE set-asides**	**Eligible DBEs**	**Examples**
1. Combination of neutral and race- and gender-conscious measures	Yes	Yes	Yes	No	All firms that are certified as DBEs	Most state DOTs NDOT since 2011
2. DBE set-asides	Yes	Yes	Yes	Yes	All firms that are certified as DBEs	No state DOTs at time of report
3. Underutilized DBE (UDBE) contract goals	Yes	Yes	Yes Only UDBEs count toward meeting contract goals	No	Only certain DBE groups	California DOT until mid-2012 Colorado DOT in past
4. Entirely race- and gender-neutral program	Yes	Yes	No	No	--	Florida DOT NDOT 2006-2010

*Examples: outreach, technical assistance, removing barriers to bidding, small business enterprise programs.

B. Similar State and Local Programs in the United States

In addition to USDOT-funded contracts, NDOT and other agencies award transportation contracts that are solely funded through state sources. The Federal DBE Program does not apply to those contracts.

Some state DOTs and other agencies throughout the country operate minority- and women-owned business programs for their non-federally-funded contracts. In 2013, the State of Nevada authorized NDOT's operation of such a program. It was not operational when Keen Independent prepared this disparity study.

C. Legal Standards that Race- and Gender-Conscious Programs Must Satisfy

The U.S. Supreme Court has established that government programs with race-conscious measures must meet the "strict scrutiny" standard of constitutional review.[1] The two key U.S. Supreme Court cases are:

- The 1989 decision in *City of Richmond v. J.A. Croson Company*, which established the strict scrutiny standard of review for race-conscious programs adopted by state and local governments[2]; and
- The 2005 decision in *Adarand Constructors, Inc. v. Peña*, which established the same standard of review for federal race-conscious programs.[3]

As described in detail in Appendix B, the strict scrutiny standard is very difficult for a government entity to meet. The strict scrutiny standard sets the most stringent threshold for evaluating the legality of race-conscious programs short of prohibiting them altogether. Under the strict scrutiny standard, a governmental entity must have a strong basis in evidence that:

- There is a *compelling governmental interest* in remedying specific past identified discrimination or its present effects; and
- Any program adopted is *narrowly tailored* to achieve the goal of remedying the identified discrimination. There are a number of factors a court considers when determining whether a program is narrowly tailored (see Appendix B).

A government agency must satisfy both components of the strict scrutiny standard. A race-conscious program that fails to meet either one is unconstitutional.

Constitutionality of the Federal DBE Program. The Federal DBE Program has been held to be constitutional "on its face" in legal challenges to date, although individual agencies implementing the program might still fail to meet this legal standard in their implementation or operation of the Program.

Appendix B discusses a number of important legal decisions in detail, including *Northern Contracting, Inc. v. Illinois DOT, Sherbrooke Turf, Inc. v. Minn DOT*, *Gross Seed v. Nebraska Department of Roads, Western States Paving Co. v. Washington State DOT,* and *Adarand Constructors, Inc. v. Slater*).[4, 5, 6]

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[1] Certain Federal Courts of Appeal, including the Ninth Circuit Court of Appeals, apply the "intermediate scrutiny" standard to gender-conscious programs. Appendix B describes the intermediate scrutiny standard in detail.

[2] *City of Richmond v. J.A. Croson Company*, 488 U.S. 469 (1989).

[3] *Adarand Constructors, Inc. v. Peña*, 515 U.S. 200 (1995).

[4] 473 F.3d 715 (7th Cir. 2007).

[5] 345 F.3d 964 (8th Cir. 2003), *cert. denied*, 541 U.S. 1041 (2004).

[6] *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147 (10th Cir. 2000) *cert. granted then dismissed as improvidently granted sub nom. Adarand Constructors, Inc. v. Mineta*, 532 U.S. 941, 534 U.S. 103 (2001).

The May 2005 Ninth Circuit Court of Appeals decision in *Western States Paving Co. v. Washington State DOT* is particularly important for this disparity study, as Nevada is within the jurisdiction of the Ninth Circuit.

- The Court upheld the constitutionality of the Federal DBE Program.
- However, the Ninth Circuit found that the Washington State DOT failed to show its implementation of the Federal DBE Program to be narrowly tailored.

After that ruling, state departments of transportation within the Ninth Circuit operated entirely race- and gender-neutral programs until studies could be completed to provide information that would allow them to implement the Federal DBE Program in a narrowly tailored manner.[7]

The first court review of an agency's implementation of the Federal DBE Program in the Ninth Circuit after the *Western States Paving* decision was in *Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation, et al.* The Ninth Circuit found Caltrans' implementation of the Federal DBE Program to be constitutional.[8]

Constitutionality of state and local race-conscious programs. In addition to the Federal DBE Program, some state and local government minority business programs have been found to meet the strict scrutiny standard. Appendix B discusses the successful defense of state and local race-conscious programs, including *Concrete Works of Colorado v. City and County of Denver* and (upheld in part) *H.B. Rowe Company, Inc. v. W. Lyndo Tippett, North Carolina Department of Transportation, et al.*[9, 10]

As discussed in Appendix B, many race-conscious programs have been challenged in court and have been found to be unconstitutional. Appendix B discusses the *Western States Paving* ruling as well as examples where courts found that operation of a state or local MBE/WBE program did not meet the strict scrutiny standard.

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[7] Disparity studies have been conducted for state DOTs in each Ninth Circuit state — Alaska, Hawaii, Washington, Idaho, Montana, Oregon, California, Nevada and Arizona — as well as many local transit agencies and some airports in those states.

[8] *Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation, et al.*, __ F. 3d __, 2013 WL 1607239 (9th Cir. April 16, 2013).

[9] *Concrete Works of Colorado v. City and County of Denver*, 321 F.3d 950 (10th Cir. 2003), *cert. denied*, 540 U.S. 1027 (2003).

[10] Program upheld with regard to African American- and Native American-owned subcontractors. *H.B. Rowe Company., Inc. v. W. Lyndo Tippett, North Carolina Department of Transportation, et al*; 615 F.3d 233 (4th Cir. 2010).

CHAPTER 3.
NDOT Transportation Contracts

Chapter 3 describes NDOT transportation contracts and the study team's process for collecting prime contract and subcontract data. This information provides important background before reviewing local industry conditions (Chapter 4), analyzing availability of firms for NDOT work (Chapter 5) and examining utilization results (Chapter 6).

The four parts of Chapter 3 are:

A. Overview of NDOT transportation contracts;
B. Collection and analysis of NDOT contract data;
C. Types of work involved in NDOT contracts; and
D. Location of businesses performing NDOT work.

Appendix C provides additional detail concerning collection and analysis of contract data.

A. Overview of NDOT Transportation Contracts

NDOT uses state and FHWA funds to build and maintain transportation projects in Nevada.

- Construction projects include building new highway segments and interchanges, widening and resurfacing roads, and improving bridges.
- Engineering-related work includes design and management of projects, planning and environmental studies, and other transportation-related consulting services.
- NDOT's design-build contracts combine engineering and construction project phases.

A single NDOT project can involve many types of businesses, as described below.

Prime contracts, subcontracts, trucking and materials supply. A typical construction project includes a prime contractor and a number of subcontractors. Trucking and materials suppliers are often involved in construction projects as well. Some subcontractors on NDOT construction contracts further contract out work to what is known as a "second-tier" subcontractor. Keen Independent examined NDOT contract information for each level of participants.

Many NDOT projects have an engineering phase prior to construction that requires hiring engineering companies and related firms. The engineering prime consultant sometimes retains specialized subconsultants to perform work on these contracts. (Note that NDOT refers to engineering contracts as "agreements.")

For both construction and engineering contracts, Keen Independent separated the contract dollars going to subcontractors (and truckers and suppliers) from the dollars retained by the prime contractor. Keen Independent calculated the total dollars going to the prime contractor by subtracting subcontractor, trucker and supplier dollars from the total contract value.

NDOT contracts and Local Public Agency Program contracts. The disparity study includes contracts that NDOT awarded and contracts that local agencies awarded using funds NDOT administered. Through NDOT's Local Public Agency (LPA) Program, FHWA and state funds for transportation projects go to cities, counties, regional transportation commissions and other local agencies.

Transportation-related contracts. The disparity study focused on transportation construction and engineering contracts. It did not include contracts for work such as office maintenance, legal services, accounting services, office-related information technology or building improvements. The study did not examine acquisition of real property (e.g., right-of-way or other property and structures).

In addition, the study team excluded any construction or engineering work contracted out to not-for-profit entities or government agencies. Reimbursements to railroads or companies such as Nevada Power are also not included.

NDOT Districts. NDOT is divided into three large districts. Figure 3-1 maps the geographic boundaries of Districts 1, 2 and 3. District headquarters are Las Vegas, Reno and Elko, respectively. Staff in NDOT's Carson City headquarters is responsible for much of NDOT's contracting.

Keen Independent identified the district location for NDOT construction contracts, LPA Program contracts and area-specific engineering contracts. Some contracts were for state-wide work, or had no specific location.

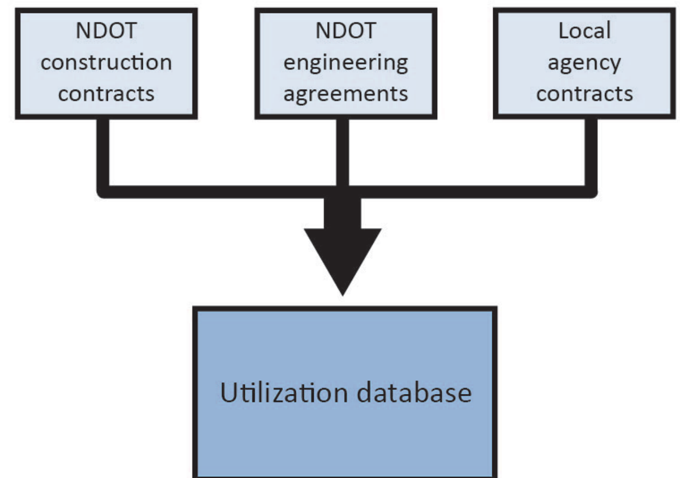
Figure 3-1.
NDOT Districts

B. Collection and Analysis of Prime Contract and Subcontract Data

As shown in figure 3-2, Keen Independent collected data on NDOT's construction and engineering-related prime contracts and subcontracts as well as contracts local agencies awarded with funds administered through the LPA Program.

Most of the dollars examined were for NDOT construction contracts. (Note that NDOT refers to engineering-related contracts as agreements.)

Figure 3-2.
Collection of contract data



Study period. Keen Independent examined NDOT contracts awarded from January 1, 2007 through June 30, 2012.[1]

- **Study period start date.** The 2007 NDOT Disparity Study examined contracts through December 2006. To avoid a gap in the analysis of NDOT contracts, the 2013 Disparity Study examined contract awards from January 2007.
- **Study period end date.** Because NDOT began compiling data for study team review in early fall 2012, it was appropriate to choose a mid-2012 cut-off date for the contracts to be examined. The close of the state fiscal year (June 30, 2012) was chosen as the study period end date.

Data sources for NDOT contracts. Keen Independent obtained data on prime contracts, subcontracts, trucking services and materials supplies from NDOT records. To the extent possible, the dollar amounts used correspond to the total dollars paid or expected to be paid to the firm for services on that contract or subcontract.[2]

NDOT contract records provided information about award date, location (i.e., district), type of work, whether or not the contract was FHWA-funded,[3] and whether the DBE contract goals program applied. Keen Independent used consistent methods to collect information on FHWA- and state-funded contracts.

[1] The study team also collected data for task orders issued in 2007 through June 30, 2012 on engineering-related contracts awarded before 2007.

[2] For example, Keen Independent examined the *total* value of the contract and related subcontracts for a May 2012 contract, not what was paid on that contract before the June 30, 2012 study period end date. For certain completed contracts and task orders, payment amounts were used to determine contract value.

[3] When there was any amount of FHWA funding expected for a contract, NDOT typically treated that contract as FHWA-funded.

Data sources for local agency contracts. NDOT maintains some information about local agency projects funded through the LPA Program, but does not obtain complete data about the prime contractors and subcontractors working on those projects. Therefore, Keen Independent collected construction and engineering contract data directly from local agencies with LPA Program projects.

Limitations concerning contract data. As discussed in Appendix C, NDOT does not maintain comprehensive data concerning each subcontractor, trucker and supplier involved in its construction and engineering contracts. NDOT does not collect comprehensive information about firms involved in LPA Program contracts, nor do some of the local agencies awarding those contracts. However, these limitations concerning data for past contracts do not appear to have a meaningful effect on overall study results.

Keen Independent recommended improvements to data collection procedures for NDOT to implement in the future.

C. Types of Work Involved in NDOT Contracts

Keen Independent included 568 transportation-related contracts and task orders totaling $2.2 billion over the 2007 through June 2012 study period. Figure 3-3 presents the number and dollar value of prime contracts and subcontracts included in the disparity study.

Figure 3-3.
Number and dollars of NDOT transportation contracts, 2007-June 2012

Source:
Keen Independent from NDOT contract data.

NDOT and LPA Program contracts	Number	Dollars (millions)
Construction contracts		
NDOT	282	$1,895
Local agency	62	112
Total	344	$2,007
Engineering-related contracts		
NDOT	182	$163
Local agency	42	27
Total	224	$190
Total contracts		
NDOT	464	$2,058
Local agency	104	139
Total	568	$2,197

The study team coded types of work involved in each prime contract and subcontract based upon data in NDOT contract records and, as a supplement, information about the primary line of business of the firm performing the work. Keen Independent developed the work types based in part on the coding systems used by NDOT as well as contractors licenses issued in Nevada and Dun & Bradstreet's 8-digit classification codes.

When prime contracts and subcontracts pertained to multiple types of work, Keen Independent coded the entire work element based on the predominant type of work in the contract or

subcontract. For example, if a subcontract included fencing and landscaping, and it appeared that the work was predominantly fencing, the entire subcontract was coded as fencing.[4]

As shown in Figure 3-4 on the following page, four general types of work account for more than 80 percent of NDOT transportation contract dollars:

- Prime contracts and subcontracts for asphalt paving and other heavy construction related to road or bridge work accounted for more than $1.4 billion of the contract dollars examined, including prime contracts and subcontracts. This work area accounted for nearly two-thirds of the contract dollars examined.

- Road and bridge design and related engineering work accounted for $167 million of prime contracts and subcontracts, or about 8 percent of the total.

- Milling and grinding of road surfaces was the third largest dollar volume of work.

- Electrical work related to road projects accounted for $72 million.

Dollar totals for 24 other work areas are also shown in Figure 3-4. Two areas — concrete work and aggregate/paving materials — were further subdivided in the utilization and availability analyses. Figure 3-4 also has three categories of work types that combined "other" construction, engineering-related services, and materials supply. Types of work that did not fit into the categories listed in Figure 3-4 were included in "other construction," "other engineering-related services" or "other materials" as appropriate. Together, these three "other" categories comprised 3.5 percent of contract dollars examined.

D. Location of Businesses Performing NDOT Work

In a disparity study, analyses of local marketplace conditions and the availability of firms to perform contracts and subcontracts focus on the "relevant geographic market area" for agency contracting.

- For each prime contractor and subcontractor, Keen Independent determined whether the company had a business establishment in Nevada based upon NDOT vendor records and additional research.

- Keen Independent then added the dollars for firms with Nevada locations and compared the total with that for companies with no establishments within the state.

Based upon this analysis, about 94 percent of combined NDOT and LPA Program transportation contract dollars from 2007 through June 2012 went to firms with locations in Nevada.

This information indicated that Nevada should be selected as the relevant geographic market area for the study. Therefore, Keen Independent's availability analysis examined firms with locations in Nevada. The quantitative analyses of marketplace conditions in Chapter 4 also focus on Nevada.

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[4] Data concerning subcontract awards or payments were for the entire subcontract, not individual work elements.

Figure 3-4.
Dollars of NDOT and LPA Program prime contracts and subcontracts by type of work, 2007-June 2012

Type of work	Total ($1,000s)	Percent
Asphalt paving and other heavy construction related to road or bridge work	$1,429,728	65.1 %
Highway and bridge design and related engineering	167,191	7.6
Milling and grinding of road surfaces	130,594	5.9
Electrical work related to roads such as lighting and signal installation	71,934	3.3
Environmental consulting	46,826	2.1
Structural steel work related to road or bridge projects	39,788	1.8
Temporary traffic control	37,268	1.7
Concrete work*	33,784	1.5
Installation of highway fences, guardrails or signs	25,643	1.2
Excavation, grading, drainage or other land prep related to road work	23,141	1.1
Soils and materials testing	19,938	0.9
Landscaping and related work	19,103	0.9
Sealing, striping or pavement marking	17,196	0.8
Drilling and foundations related to road work	17,075	0.8
Aggregate materials supply**	13,827	0.6
Transportation planning	12,727	0.6
Reinforcing steel supply	11,964	0.5
Trucking and hauling for road projects	11,625	0.5
Painting for road and bridge projects	7,007	0.3
Surveying and mapping	2,046	0.1
Erosion control	1,679	0.1
Construction management related to road or bridge work	1,348	0.1
Sweeping services	386	0.0
Rental of construction equipment	328	0.0
Demolition	11	0.0
Other construction	24,115	1.1
Other engineering	21,223	1.0
Other materials	9,470	0.4
Total	$2,196,965	100.0 %

*Further divided into structural concrete work, concrete paving, concrete flatwork.

**Further divided into aggregate supply and asphalt, concrete or other paving materials supply.

Source: Keen Independent from NDOT contract data.

CHAPTER 4.
Marketplace Conditions

Federal courts have found that Congress "spent decades compiling evidence of race discrimination in government highway contracting, barriers to the formation of minority-owned construction businesses, and barriers to entry."[1] Congress found that discrimination has impeded the formation and expansion of qualified MBE/WBEs.

The Keen Independent study team conducted quantitative and qualitative analyses of conditions in the Nevada marketplace to examine whether barriers for MBE/WBEs that Congress found on a national level also appear in Nevada. The study team analyzed whether barriers exist in the Nevada construction and engineering industries for minorities, women, and for MBE/WBEs, and whether such barriers might affect opportunities on NDOT transportation contracts.

Keen Independent examined conditions in the Nevada marketplace in four primary areas:

A. Entry and advancement;

B. Business ownership;

C. Access to capital; and

D. Success of businesses.

Appendices E through I present quantitative information concerning conditions in the Nevada marketplace. Keen Independent collaborated with BBC Research & Consulting to complete these analyses. Appendix J presents qualitative information that the study team collected through 40 in-depth personal interviews with business owners and others throughout the state. In addition, owners and managers of 228 businesses offered their perspectives about the local marketplace as part of the availability interviews conducted with those firms.

Keen Independent also examined testimony at public meetings held in July and in October 2013.

- NDOT held two public meetings in July 2013 concerning SBE/DBE goals on state-funded projects.
- After release of the draft disparity study report for public comment on September 9, Keen Independent participated in NDOT public meetings that encompassed each of the three NDOT districts. Public meetings were held in-person in Sparks and Las Vegas, and via video-conference at District 3 locations. Opportunities to review the draft report, provide comments and attend these meetings were widely publicized. Keen Independent received comments via mail, email and telephone, and at the public meetings.

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[1] *Sherbrooke Turf, Inc. v. Minnesota DOT*, 345 F.3d, 970 (8th Cir. 2003) (citing *Adarand Constructors, Inc.*, 228 F.3d at 1167 – 76); *Western States Paving Co. v. Washington State DOT*, 407 F.3d 983, 992 (9th Cir. 2005).

A. Entry and Advancement

Several business owners and managers that the study team interviewed as part of the NDOT disparity study commented that individuals who form construction and engineering businesses tend to work in those industries before starting their own businesses (see Appendix J). Any barriers related to entry or advancement in the construction and engineering industries may prevent some minorities and women from starting construction and engineering businesses. Several studies throughout the United States have indicated that race and gender discrimination has affected the employment and advancement of certain groups in the construction and engineering industries. The study team examined the representation of minorities and women among all workers in the Nevada construction and engineering industries. In addition, for the construction industry, the study team examined the advancement of minorities and women into supervisory and managerial roles. Appendix E presents those results in more detail.

Quantitative information about entry and advancement in construction. Quantitative analyses of the Nevada marketplace — based primarily on data from the 2000 U.S. Census and the 2009-2011 American Community Survey (ACS) — showed that, in general, certain minority groups and women appear to be underrepresented among all workers in the Nevada construction industry compared to all industries considered together.[2] In addition, minorities and women appeared to face barriers regarding advancement to supervisory or managerial positions.

Overall representation. African Americans, Asian-Pacific Americans, Subcontinent Asian Americans and women accounted for a smaller percentage of workers in the Nevada construction industry than in all Nevada industries in 2009 through 2011.

- African Americans made up 5 percent of workers in the Nevada construction industry compared with 8 percent of workers in all Nevada industries.
- Asian-Pacific Americans (2%) and Subcontinent Asian Americans (less than 0.1%) were also underrepresented in the construction industry relative to their representation in all industries.
- Women made up about 10 percent of the workforce in the Nevada construction industry compared with 46 percent of the workforce in all Nevada industries. Many of the women working in the construction industry hold jobs outside of typical construction trades. In most construction trades in Nevada, women made up less than 5 percent of workers.

About 35 percent of Nevada construction workers were Hispanic American compared with 25 percent of workers in all Nevada industries. However, there were large differences in the representation of Hispanics among specific construction trades in Nevada.

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[2] Data from the 2009-2011 American Community Survey were the most current U.S. Census Bureau data concerning local area population and employment available at the time of this study.

Representation of Native Americans in the Nevada construction industry was similar to the workforce in all industries (about 2%).

Advancement. Minority and female workers in the Nevada construction industry were less likely than non-Hispanic whites and males to advance to the level of first-line supervisor based on data for 2009 through 2011.

- Only 26 percent of first-line supervisors were Hispanic Americans, less than the percentage of all Nevada construction workers who were Hispanic (35%).
- About 7 percent of first-line supervisors were African American, Asian-Pacific American, Native American or other minorities compared with 9 percent representation among all construction workers.
- Similar to that result, women made up only 6 percent of first-line supervisors in the Nevada construction industry compared to 10 percent of all workers in the construction industry.

In addition, African Americans and Hispanic Americans were less likely than non-Hispanic whites and males working in the construction industry to advance to the level of manager.

Formal education beyond high school is not a prerequisite for most construction jobs (discussed further in Appendix E). Because the average educational attainment of minorities and women was generally consistent with educational requirements for construction jobs, factors other than formal education may explain the relatively low representation of minorities and women among all workers in the Nevada construction industry and the relatively low representation of minorities and women working in supervisory roles.

Quantitative information about entry into the engineering industry. The Keen Independent study team also used 2000 U.S. Census data and 2009-2011 ACS data to examine employment and advancement for minorities and women in the Nevada engineering industry. In general, minorities and women accounted for a smaller percentage of workers in the Nevada engineering industry than in all Nevada industries in 2009 through 2011, even when limiting the analyses to only those individuals with college degrees.

Qualitative information about entry and advancement. Keen Independent collected qualitative information about entry and advancement in the Nevada construction and engineering industries through in-depth interviews with business owners and managers and others knowledgeable about the local marketplace.

Interviewees indicated that construction and engineering businesses are often started by individuals working in those industries or with other connections to those industries. Interviewees reported that construction and engineering companies are typically started (or sometimes purchased) by individuals with connections to the construction or engineering industries. Many business owners reported that they worked in the construction or engineering industry before starting their businesses. Therefore, any barriers to becoming employed in the construction or engineering industry could also affect business ownership.

Some interviewees reported a discriminatory work environment for women in the construction industry. Some interviewees reported a discriminatory work environment for women in the Nevada construction industry. They said that, to succeed, women had to have "thick skin" or otherwise ignore derogatory comments, and that the industry was male-dominated. One business owner said, "As a woman in this industry, you have to be tough because otherwise, they think they can take advantage of you."

Other interviewees said that they had not experienced unfavorable treatment, or that the industry was once that way but has improved.

Effects of entry and advancement. The barriers that minorities and women appear to face entering and advancing within the Nevada construction and engineering industries may have substantial effects on business outcomes for MBE/WBEs.

- Typically, employment and advancement are preconditions to business ownership in the construction and engineering industries. Because certain minority groups and women appear to be underrepresented in the Nevada construction and engineering industries — both in general and as supervisors and managers — it follows that such underrepresentation may prevent some minorities and women from ever starting businesses, reducing overall MBE/WBE availability in the local transportation contracting industry.

- Underrepresentation of certain minority groups and women in the Nevada construction and engineering industries — particularly in supervisory and managerial roles — may perpetuate beliefs and stereotypical attitudes that MBE/WBEs may not be as qualified as majority-owned businesses. Those beliefs may make it more difficult for MBE/WBEs to win work in Nevada, including work with NDOT.

B. Business Ownership

National research and studies in other states have found that race/ethnicity and gender also affect opportunities for business ownership, even after accounting for race- and gender-neutral factors. Figure 4-1 summarizes how courts have used information from such studies — particularly from regression analyses — when considering the validity of an agency's implementation of the Federal DBE Program.

The Keen Independent study team used regression analyses and data sources that were similar to those used in other studies to analyze business ownership in the Nevada transportation contracting industry. The study team used U.S. Bureau of the Census data from 1980, 2000 and 2009-2011 to examine whether there are differences in business ownership rates between minorities and women and non-Hispanic whites and males in the Nevada construction and engineering industries.

The regression models that the study team developed showed that certain minority groups and women are less likely to own businesses than non-Hispanic whites and males, even after accounting for various personal characteristics including education, age, and the ability to speak English.

Figure 4-1.
Use of regression analyses of business ownership in defense of the Federal DBE Program

State and federal courts have considered differences in business ownership rates between minorities and women and non-Hispanic whites and males when reviewing the implementation of the Federal DBE Program, particularly when considering DBE goals. For example, disparity studies in Minnesota, Illinois and California used regression analyses to examine the impact of race/ethnicity and gender on business ownership in the construction and engineering industries. Results from those analyses helped determine whether differences in business ownership exist between minorities and women and non-Hispanic white males after statistically controlling for race- and gender-neutral characteristics. Those analyses, which were based on Census data, were included in materials submitted to the courts in subsequent litigation concerning the implementation of the Federal DBE Program.

For those groups that were significantly less likely to own businesses, the study team compared their actual business ownership rates with simulated rates if those groups owned businesses at the same rate as non-Hispanic whites or non-Hispanic white males (in the case of non-Hispanic white women) who share the same race- and gender-neutral personal characteristics.

Appendix F presents detailed results from the quantitative analyses of business ownership rates.

Quantitative information about business ownership in construction. Regression analyses revealed that women working in the Nevada construction industry were substantially less likely than men to own construction businesses, even after accounting for various gender-neutral personal characteristics such as education, age, personal net worth, and ability to speak English.

- **Women working in construction.** The study team calculated a business ownership disparity index by dividing the observed business ownership rate by the benchmark business ownership rate and then multiplying the result by 100. Simulation results indicate that non-Hispanic white women (disparity index of 48) own businesses at about half the rate that would be expected based on the simulated business ownership rates of similarly-situated non-Hispanic white male construction workers. Appendix F provides a detailed explanation of methodology and results.

- **Minorities working in construction.** Although most minority groups had lower rates of business ownership than non-minorities, the race/ethnicity terms in the model were not statistically significant, perhaps due to small sample sizes.

Quantitative information about business ownership in engineering. As with construction, the study team examined differences in business ownership rates between minorities and women and non-Hispanic whites and males working in the Nevada engineering industry in 2009-2011. The study team identified statistically significant effects of gender on business ownership.

- **Women working in engineering.** The study team simulated business ownership rates for non-Hispanic white women working in the Nevada engineering industry using the same approach as it used for the construction industry. Approximately 5 percent of non-Hispanic white women in the Nevada engineering industry were business owners in 2009 through 2011 compared with a benchmark business ownership rate of about 15 percent (disparity index of 32). Those results indicate that women working in the Nevada engineering industry own businesses at one-third of the rate observed for similarly-situated men (i.e., non-Hispanic white males with similar personal, financial, and educational characteristics of non-Hispanic white females identified in the U.S. Census Bureau data). Appendix F presents detailed results.

- **Minorities working in engineering.** Although most minority groups had lower rates of business ownership than non-minorities after controlling for other factors, no statistically significant relationships were identified between race/ethnicity and business ownership, perhaps due to small sample sizes.

Quantitative information about business ownership from another recent disparity study in Nevada. In 2010, MGT of America, Inc. completed a disparity study for McCarran International Airport, which is operated by Clark County. MGT included statistical analysis of business ownership rates for minorities and women living in the Las Vegas Metropolitan Area. Based on analysis of 2000 Census data, MGT's results included substantial disparities in business owners ship rates for:

- African Americans;
- Hispanic Americans; and
- Women.

Qualitative information about business ownership. Keen Independent collected qualitative information about business ownership in the Nevada construction and engineering industries through in-depth interviews and availability interviews conducted in the study.

According to most interviewees, the severe economic downturn in Nevada substantially affected the local transportation contracting industry. It was difficult to start and successfully operate a business within that market. Since the beginning of the study period (2007), Nevada went from one of the most attractive markets for construction and engineering work to one of the toughest markets to stay in business. Private sector work slowed first. Public sector work continuing for several years, but eventually declined as well. Although some interviewees reported recent improvements in business conditions, the market is still well below where it was in the mid-2000s. Many interviewees still reported that they were still in "survival mode."

- Small business owners who were minority, female, or white male reported facing many of the same challenges. And, representatives of large majority-owned businesses reported difficulties staying in business.
- Many interviewees pointed out the large number of construction, engineering and supply businesses that failed during the economic downturn. Even with some competitors going out of business, many interviews said that competition for remaining construction and engineering projects was far more heated than in the past.
- Importantly, businesses that were older or well-capitalized were better able to weather the downturn.

Some interviewees indicated additional disadvantages for minorities and women starting or operating businesses in the Nevada transportation contracting industry. Information included:

- Interviewees cited difficulties with obtaining financing, licensing from the Nevada State Contractors' Board, bonding and being excluded from industry networks.
- Some business owners explained the connection between personal assets and the ability to obtain financing, which then impacts successfully starting and expanding a business.
- Any disadvantages in operating a business can also reduce the number of MBE/WBEs.

Effects of business ownership. The barriers that women appear to face regarding business ownership may have substantial effects on the current composition of the transportation contracting industry.

C. Access to Capital

Access to capital represents one of the key factors that researchers have examined when studying business formation and success. If race- or gender-based discrimination exists in capital markets, minorities and women may have difficulty acquiring the capital necessary to start or expand a business. The Keen Independent study team examined whether MBE/WBEs have access to capital — both for their homes and for their businesses — that is comparable to that of majority-owned businesses. In addition, the study team examined information about whether minorities and women face any barriers in obtaining bonding and insurance. Appendix G provides details about the study team's quantitative analyses of access to capital, bonding, and insurance.

Quantitative information about homeownership and mortgage lending. Wealth created through homeownership can be an important source of funds to start or expand a business. Barriers to homeownership or home equity can affect business opportunities by limiting the availability of funds for new or expanding businesses.

The Keen Independent study team analyzed the potential effects of race and ethnicity on homeownership in Nevada based on 2009-2011 American Community Survey (ACS) data. The study team examined the potential impact of race and ethnicity on mortgage lending in Nevada based on Home Mortgage Disclosure Act (HMDA) data for 2006, 2009 and 2012.

- Homeownership rates. Many studies have documented past discrimination in the national housing market. In Nevada, homeownership rates for minority groups are considerably lower than non-Hispanic whites. African American, Hispanic American and Native American homeowners tend to have substantially lower home values than non-Hispanic white homeowners (see Appendix G).

- Mortgage lending. Minorities may be denied opportunities to own homes, to purchase more expensive homes, or to access equity in their homes if they are discriminated against when applying for home mortgages. Examining mortgage applications for conventional purchase loans from high-income households in Nevada, there were higher rates of loans denials for African Americans, Asian Americans, Hispanic Americans, Native Americans, and Native Hawaiians or other Pacific Islanders compared with non-Hispanic whites. The analysis controlled for income (only examining high income households).

  Mortgage lending discrimination can also occur through higher fees and interest rates. Subprime lending is one example of such types of discrimination through fees associated with various loan types. Because of higher interest rates and additional costs, subprime loans affected homeowners' ability to grow home equity and increased their risks of foreclosure. There is national evidence that predatory lenders disproportionately targeted minorities with subprime loans, even when applicants could qualify for prime loans. Keen Independent identified large disparities in the use of subprime loans in Nevada for African Americans and Hispanic Americans. (See Appendix G).

In sum, there is substantial quantitative evidence of disparities in homeownership and home mortgage lending for minorities in Nevada. Any past discrimination against minorities that affected the ability to purchase and stay in homes could have long-term impacts on the home equity available to start and expand businesses, and the ability of minority business owners to access business credit.

Quantitative information about business credit. Business credit is also an important source of funds for small businesses. Any race- or gender-based barriers in the application or approval processes of business loans could affect the formation and success of MBE/WBEs.

To examine the role of race/ethnicity and gender in capital markets, the study team analyzed data from the Federal Reserve Board's Survey of Small Business Finances (SSBF) — the most comprehensive national source of credit characteristics of small businesses (those with fewer than 500 employees). The survey contains information on loan denial and interest rates as well as anecdotal information from businesses. The Mountain region is the level of geographic detail of SSBF data most specific to Nevada and 2003 is the most recent information available from the SSBF.

Business loan approval rates. The Keen Independent study team examined business loan approval rates in 2003:

- Within the Mountain region, about 13 percent of minority- and women-owned small businesses reported being denied loans compared with 10 percent for non-Hispanic male-owned small businesses.
- Statistically significant disparities in loan approval rates were identified for African American-owned small businesses compared with similarly-situated non-Hispanic white-owned firms.

Applying for loans. Fear of loan denial can be a barrier to business credit in the same way that actual loan denial presents a barrier. The SSBF includes a question that gauges whether a business owner did not apply for a loan due to fear of loan denial.

- Minority- and female-owned small businesses were considerably more likely to report needing loans but not applying for them due to fear of denial than non-Hispanic white male-owned small businesses.
- African American-, Hispanic American- and female-owned small businesses were more likely than similarly-situated non-minority or male-owned small businesses to forgo applying for a loan due to fear of denial.

Loan values and interest rates. The Keen Independent study team also examined 2003 SSBF data for the average business loan values and interest rates paid by small businesses that received loans.

- Minority- and female-owned small businesses in the Mountain region received business loans that were, on average, less than one-half of the size of the loans that majority-owned small businesses received ($96,000 versus $232,000).

- In 2003, the average interest rate on loans issued to minority- and women-owned small businesses in the Mountain region was 9.1 percent compared with 6.7 percent for non-Hispanic white male-owned small businesses.

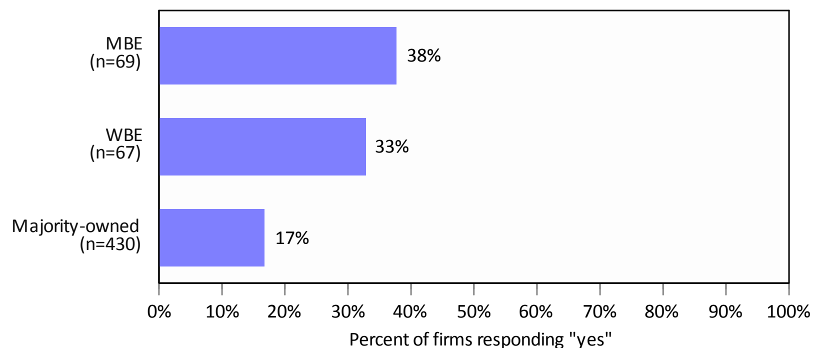
Results of other recent disparity studies in Nevada. The 2010 disparity study MGT conducted for McCarran International Airport also analyzed 2003 SBBF data, and concluded that:

- There were disparities in loan denial rates for African American-, Asian American- and Hispanic American-owned businesses; and
- There were disparities in interest rates charged on business loans for African American and Hispanic American business owners, after controlling for other factors.[3]

Experiences of MBEs, WBEs and majority-owned businesses with obtaining lines of credit and business loans. As part of availability interviews that the study team conducted, Keen Independent asked several questions related to potential barriers or difficulties businesses have faced in the local marketplace. The interviewer introduced those questions with the following description: "Finally, we're interested in whether your company has experienced barriers or difficulties associated with starting or expanding a business in your industry or with obtaining work. Think about your experiences within the past five years as you answer these questions."

The first question was, "Has your company experienced any difficulties in obtaining lines of credit or loans?" As shown in Figure 4-2, of all firms, 38 percent of MBEs and 33 percent of WBEs reported difficulties obtaining lines of credit or loans. Fewer majority-owned firms (17%) reported that they had experienced difficulties obtaining lines of credit or loans.

Figure 4-2.
Results for, "Has your company experienced any difficulties in obtaining lines of credit or loans?"



Source:

Keen Independent Research from 2013 Availability Interviews.

[3] MGT of American, Inc. *Clark County Department of Aviation, McCarran International Airport Non-Concessions Disparity Study*. 2010.

Quantitative information about bonding and insurance. Keen Independent also examined potential barriers that businesses face in obtaining bonding and insurance as part of the availability interviews.

To research whether bonding represented a barrier for Nevada businesses, Keen Independent asked firms completing availability interviews the following two questions:

- Has your company obtained or tried to obtain a bond for a project?
- [and if so] Has your company had any difficulties obtaining bonds needed for a project?

About 20 percent of WBEs indicated difficulties obtaining bonds needed for a project, about double the percentage for MBEs and majority-owned firms.

Keen Independent's availability interviews also asked, "Have any insurance requirements on projects presented a barrier to bidding?" Approximately 14 percent of WBEs that the study team interviewed reported such difficulties, about double that of majority-owned firms.

Qualitative information about access to capital, bonding and insurance. Keen Independent collected qualitative information about access to capital, bonding and insurance for businesses in the Nevada transportation contracting industry through in-depth interviews, availability interviews, public meetings with trade organizations and public hearings.

Business financing. Many firm owners reported that obtaining financing was important in establishing and growing their businesses (including financing for working capital and for equipment), and surviving poor market conditions.

- Many interviewees indicated that access to financing was a barrier for small businesses in general, especially when starting and first growing.
- Many interviewees, including MBEs, WBEs and majority-owned firms, reported difficulty in receiving timely payment on contracts and subcontracts, which exacerbated the need for business capital and financing.
- A number of business owners and managers observed that access to financing had worsened in the recent economic downturn.
- Some business owners explained that the ability to obtain business financing was often connected to personal net worth.
- Interviewees had different opinions on whether race or gender affected access to financing. Some said that it was more difficult for minorities and women to obtain financing, and some did not think it was any different for minorities and women.
- However, if business size and personal equity is affected by race or gender discrimination, discrimination could also impact the ability to obtain business financing.

Bonding. Nevada state law requires a firm to have bonding when bidding on a public works contract above a minimum size of contract ($35,000 for NDOT). Bonding companies review a company's history and financial strength when determining whether to issue a bond of a particular size. Therefore, any barriers to obtaining bonding are closely linked to access to capital.

According to business owners and other individuals interviewed in Nevada:

- Bonding requirements preclude many small businesses, including MBE/WBEs, from bidding on NDOT and other public contracts.

- Business owners reported they could not get a bond for a big project, but needed that experience to then obtain that level of bonding. A number of business owners and trade association representatives described this "catch 22" predicament.

- Bonding requirements can also affect subcontractors. Even though NDOT or other public agencies do not require subcontractors to provide bonding, the prime contractor may still require this of a subcontractor. One interviewee explained that some bonding companies provide bonding to the prime with the condition that they require bonds of their subcontractors.

- In addition, the representative of a construction association explained that small companies pay up to 3 percent for a bond while a large company might pay 1 percent. This can be a large price disadvantage for small companies. He added that just the upfront cost of the CPA-prepared financials required can be too much for small businesses to pursue bonding.

- Interviewees explained the link between business capital bonding and between personal finances and bonding. For example, one minority business owner said that his past personal financial challenges had precluded his company from obtaining sufficient bonding.

The MGT of America disparity study for McCarran International Airport included in-depth interviews, focus groups and telephone interviews with business owners in the Las Vegas Metropolitan Area and public hearings in Las Vegas. In total, 407 business owners and representatives were included in this qualitative research. MGT's summary of results indicated that bonding was a barrier for MBE/WBEs to do business with the Airport. Evidence included:

- Prime contractor mistreatment of a subcontractor because it did not have bonding even though the prime contractor had waived that requirement;

- Prime contractors rejecting subcontractors because of lack of bonding; and

- Small contractors, including MBE/WBEs, having difficulty obtaining large amounts of bonding required by prime contractors.

Access to insurance. The Keen Independent study team asked business owners and managers whether insurance requirements and obtaining insurance presented barriers to doing business. In general, interviewees reported that insurance is typically obtainable, but sometimes at a high cost. If a small business owner decides that he or she cannot afford the premiums for a certain level of insurance, it may preclude them from bidding on certain contracts, especially public sector prime contracts.

Effects of access to capital, bonding and insurance. Potential barriers associated with access to capital, bonding and insurance may affect business outcomes for MBE/WBEs.

- Bonding and insurance are required to bid on NDOT and other public sector prime contracts. Interviewees report that these requirements affect subcontractors as well.
- A company must also have considerable working capital to complete an NDOT contract or subcontract, especially if there are delays in payment on that contract (which some businesses report).
- MBE/WBEs in the Nevada transportation contracting industry are disproportionately small. Obtaining business financing, bonding and insurance is more of a barrier to small businesses than large businesses. The effect of such barriers is to make it less likely that a small firm can grow.
- To obtain bonding, a company must have financial strength. Any barriers to accessing capital can affect a company's ability to obtain a bond of a certain size. There is evidence that minority- and women-owned firms do not have the same access to business loans than similarly-situated majority-owned firms.
- There is some quantitative evidence that minorities do not have the same personal access to capital as non-minorities, which affects personal financial resources. As described in this chapter and in supporting appendices, personal net worth and financial history can affect access to business loans, bonding and contractors' licenses in Nevada.

D. Success of Businesses

The Keen Independent study team completed quantitative and qualitative analyses that assessed whether the success of MBE/WBEs differs from that of majority-owned businesses in the Nevada transportation contracting industry. The study team examined business success in terms of participation in the public and private sector; relative bid capacity; business closure, expansion, and contraction; and business receipts and earnings. Appendix H provides details about these quantitative analyses of success of businesses. Keen Independent also collected and analyzed information from interviews with business owners and managers and others knowledgeable about the local contracting industry.

Quantitative analysis of participation in the public and private sectors. Keen Independent drew on information from availability interviews conducted in the disparity study to examine any patterns of MBE/WBE and majority-owned business participation in the industry.

- Many businesses reported bidding on both public and private sector work.
- Among construction firms, MBEs were less likely to have been successful when pursuing public sector work than majority-owned firms.
- MBE and WBE in the engineering industry were less likely than majority-owned firms to have been successful pursuing public sector work.
- MBEs were also less likely than other engineering-related firms to have success pursuing private sector work.

Appendix H provides additional information from the availability interviews.

Size of contracts. The study team also asked firms to identify the largest contract (including subcontracts) they were awarded in Nevada in the past five years.

- Only 13 percent of WBE construction firms reported that the largest contract was worth at least $5 million compared with about 40 percent of other firms. (Largest contracts for MBEs were similar to majority-owned firms.)
- Among engineering-related companies, only 5 percent of WBEs and 18 percent of MBEs reported that the largest contract was worth $1 million or more compared with 30 percent of majority-owned firms.

Appendix H provides detailed results.

Bid capacity. The availability interviews also collected information about the largest contract or subcontract a firm had bid on in Nevada in the past five years. Combining those answers with results from the question concerning largest contract received, the study team analyzed "bid capacity" of MBEs, WBEs and majority-owned firms (as explained in Appendix H).

After controlling for the primary line of business for a firm (e.g., asphalt paving, electrical, surveying):

- The largest contracts that WBE construction firms had bid on or performed were smaller than other firms; and
- The largest contracts that MBE and WBE engineering firms had bid on or performed were smaller than majority-owned firms.

After also controlling for length of time in business, female business ownership still appeared to affect bid capacity, although the result was not statistically significant. Appendix H provides these regression results.

Quantitative analysis of business receipts and earnings. The study team examined several sources to analyze business receipts and earnings for Nevada businesses. Business revenue of minority- and women-owned firms was lower than majority-owned firms across time periods and data sources.

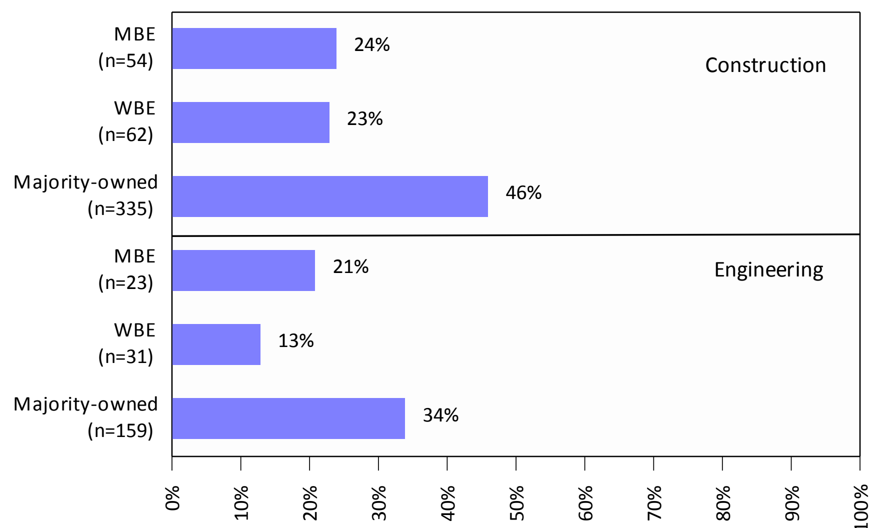
- The 2000 U.S. Census of Population data show business earnings of minority and female business owners were lower than non-minority and male business owners in the construction and the engineering industries. (Data are for the Mountain region, which includes Nevada, as there were too few observations to report results for Nevada alone.) Appendix H provides results by race and ethnic group, and discusses statistical significance of any differences.

- Data for Nevada from the U.S. Census Bureau 2007 Survey of Business Owners indicate that average receipts for minority- and women-owned businesses were lower than average receipts for businesses owned by non-Hispanic whites and businesses owned by men. (See Appendix H for results by industry and racial and ethnic group.)

- The U.S. Census Bureau's American Community Survey provides business earnings data for 2008-2011. Minority and female owners of construction business and engineering businesses had lower earnings than non-minorities and male owners. Data are for the Mountain region because of small sample sizes. (Appendix H provides detailed results, including statistical significance of differences and regression results.)

- Data on average annual gross revenue for 2010 through 2012 from the 2013 availability interviews indicate fewer high-revenue minority- and women-owned firms compared with majority-owned firms in Nevada (see Appendix H). Figure 4-3 shows the percentage of firms from the availability interviews reporting annual gross revenue of at least $4.6 million per year.

Figure 4-3.
Percentage of firms reporting average annual gross revenue of $4.6 million or more for 2010-2012



Note:

Includes revenue for all Nevada locations.

Source:

Keen Independent Research from 2013 Availability Interviews.

In sum, diverse data sources for different time periods consistently show that revenue of minority- and women-owned businesses in the construction and engineering industries tends to be lower than majority-owned businesses.

Quantitative analysis of business closures, expansions and contractions. A 2010 U.S. Small Business Administration report investigated business dynamics and whether minority-owned businesses were more likely to close than other firms. The report included analysis of business closures, contractions, and expansions in Nevada between 2002 and 2006. Data were available for African American-owned businesses, Hispanic American-owned businesses, Asian American-owned businesses and non-Hispanic white-owned businesses.

- Those data indicated that African American-owned businesses (42%) and Asian American-owned businesses (45%) in Nevada closed at higher rates than non-Hispanic white-owned businesses (35%) between 2002 and 2006.
- The closure rate of Hispanic American-owned businesses over that time period (36%) was similar to non-Hispanic white-owned businesses.

Appendix H presents additional information about business closures, expansions and contractions.

Private sector MBE/WBE utilization in the Las Vegas Metropolitan Area. Additional information about MBE and WBE opportunities in the private sector come from the 2010 disparity study for McCarran Airport. In that study, MGT also examined MBE/WBE participation on commercial construction projects in the Las Vegas Metropolitan Area from 2003 through 2007.

Prime contractor work. Of the 8,083 permits examined for prime contractor work, MGT reported that seven went to minority- or women-owned firms. The value of work going to MBE/WBEs was less than one-tenth of 1 percent of the total prime contractor dollars examined.

- MGT reported substantial disparities between the utilization and availability of African American, Hispanic American-, Asian American- and white women-owned construction firms on prime contractor work.
- No work went to Native American-owned firms but MGT was unable to examine disparity due to limitations on availability data for that group.

Subcontractor work. MGT examined 26,500 permits related to subcontractor construction work. MBE/WBEs received 168 of those permits (about 0.6% of the permits). The value of subcontract work going to MBE/WBEs was 0.4 percent of the total subcontract dollars examined.

- When comparing utilization and availability for subcontractor construction work, MGT reported substantial disparities between the utilization and availability for African American-, Hispanic American- Asian American- and white women-owned firms.
- Although there was no utilization of Native American-owned firms, MGT was unable to calculate a disparity index for this group.

MBE/WBE utilization at McCarran International Airport. It is also instructive to examine MBE/WBE utilization on contracts at McCarran International Airport as reported in the MGT disparity study. The Airport largely draws upon a Nevada construction and engineering industry for its prime contractors and subcontractors. Clark County owns the Airport, and is also one of the agencies that obtain FHWA funding through NDOT for other transportation projects.

For construction and architecture/engineering (A/E) from 2003 through 2007, MGT reported substantial disparities between utilization and availability of:

- Hispanic American-, Asian American-, Native American- and white women-owned firms on Airport construction prime contracts for 2003 through 2007.
- Hispanic American- and white women-owned firms on construction subcontracts.
- African American-, Hispanic American-, Asian American- and white women-owned firms for A/E prime contracts; and
- African American-, Hispanic American- and white women-owned firms for A/E subcontracts.

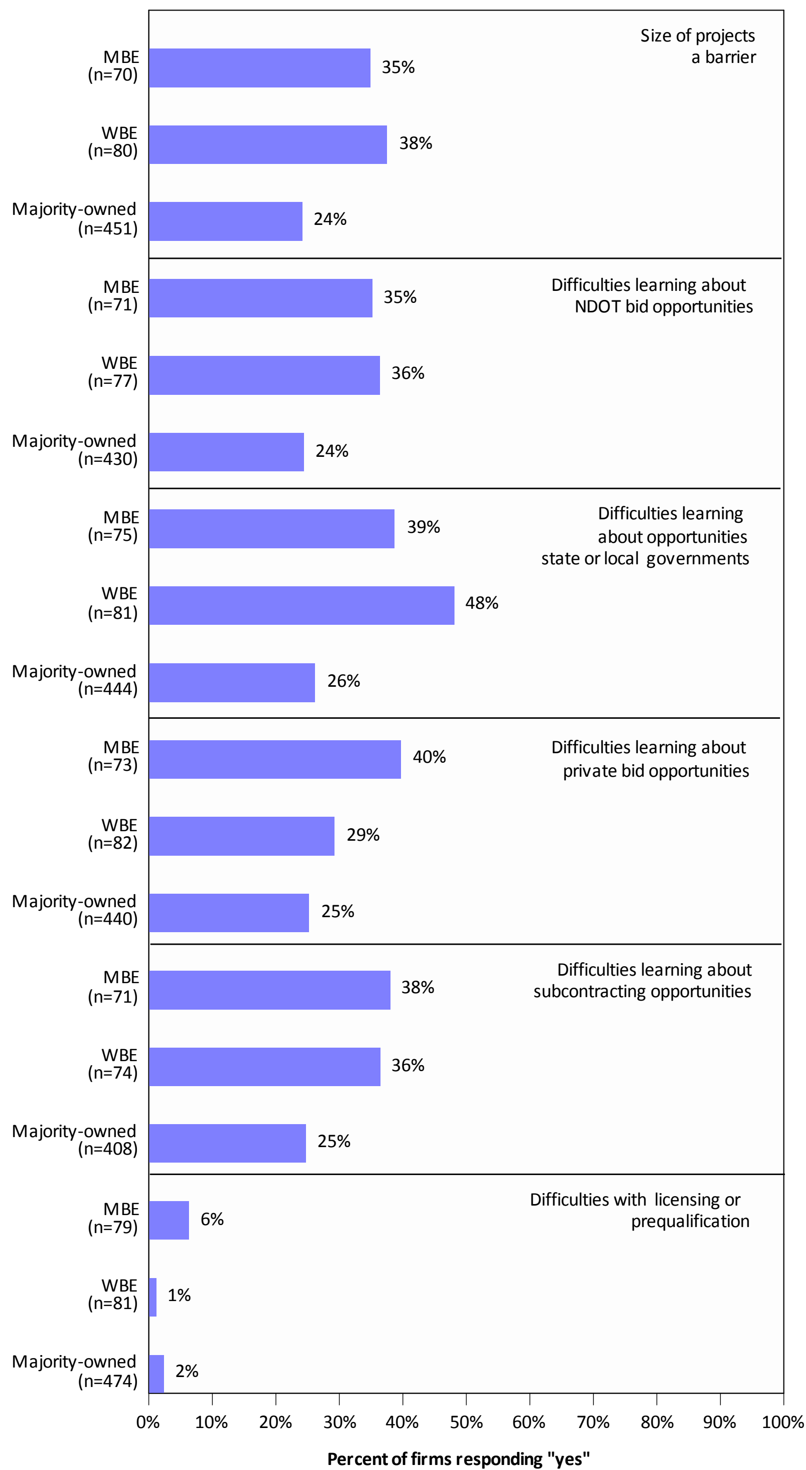
Telephone interview results concerning potential barriers. Keen Independent's availability interviews with Nevada businesses included questions about whether firms had experienced barriers or difficulties associated with starting or expanding a business. Questions included whether:

- The size of projects had presented a barrier to bidding;
- The firm had experienced difficulties learning about bid opportunities with NDOT, local governments or private companies; and
- The firm had experienced difficulties learning about subcontracting opportunities in Nevada.

Figure 4-4 on the following page summarizes responses to these questions. Responses for construction and engineering-related firms have been combined.

- As shown in Figure 4-4, MBEs and WBEs were more likely than majority-owned firms to report that the size of projects had been a barrier to bidding.
- MBEs and WBEs were more likely than majority-owned firms to report difficulties learning about bid opportunities at NDOT, local governments and in the private sector.
- MBE/WBEs were more likely than majority-owned firms to report difficulties learning about subcontracting opportunities.
- Although few firms reported difficulty in licensing or being prequalified for work in Nevada, MBEs appeared to be somewhat more likely than majority-owned firms to report difficulties.

Figure 4-4.
Responses to 2013 availability interview questions from Nevada
MBE, WBE and majority-owned construction and engineering-related firms



Note: "WBE" represents white women-owned firms, "MBE" represents minority-owned firms and "Majority-owned" represents non-Hispanic white male-owned firms.

Source: Keen Independent Research from 2013 Availability Interviews.

Qualitative information about success of businesses. Keen Independent also collected qualitative information about success of businesses in the Nevada transportation contracting industry through in-depth interviews, availability interviews and review of public meeting testimony. Appendix J provides a detailed discussion of this qualitative information. Some of the information is already summarized in the discussion of Access to Capital presented earlier in this Chapter. Additional results are summarized around the following issues:

- Impact of the recent economic downturn;
- Fluid employment size and types of work as adaptions to changes in marketplace conditions;
- The importance of business relationships to success in the transportation contracting industry;
- The presence of a "good ol' boy" network affecting the transportation contracting industry in Nevada;
- Disadvantages for small businesses working in this industry; and
- Evidence of stereotyping and other race and gender discrimination affecting the industry.

The balance of this Chapter presents a highly condensed summary of the qualitative information collected in the study regarding barriers to business success. Appendix J provides much more analysis of this information, including the full richness of comments on these subjects. There was a wide variation in perceptions of the local marketplace, depending on the subject and interviewee. Please see Appendix J for a deeper analysis of these issues, and exploration of competing views.

Impact of recent economic downturn. Many interviewees reported that the recent economic downturn has had an adverse effect on all businesses, but especially small companies. In summary:

- Market conditions since 2008 have made it difficult to stay in business.
- Much more competition during the economic downturn.
- Many companies scaled back their operations in response to market conditions in order to stay in business.
- Some businesses survived because they were well-capitalized going into the economic downturn.
- The slowdown in private sector work resulted in more companies pursuing public sector contracts.
- Large companies that would not typically pursue small contracts started bidding on that work.
- Economic conditions might now be improving, but not for all companies.

Fluid employment size and types of work. Interviewees explained that firms in the transportation contracting industry must continuously adapt their operations in response to marketplace conditions. This flexibility includes the size of a company's permanent and temporary workforce, owned and leased equipment, and the types of work they pursue and licenses they hold.

- A number of companies reported that they expand and contract their employment size depending on work opportunities, season or market conditions. Large contractors interviewed might have gone from 1,200 employees in 2006 and 2007 to 300 permanent employees in 2013. Another firm went from 800 employees in 2008 to 100 in 2013. Smaller contractors scaled back as well, or went out of business.
- Many firm owners reported flexibility in the locations and sizes of contract that their firms perform. For example, many larger contractors that would not have typically bid small contracts before the economic downturn did so during the downturn. A DBE environmental company that will pursue $1 million projects said that she also has work that's under $1,000. Although some firms said they prefer to perform projects close to home, many firms reported that they might seek work throughout the state.
- Some businesses have changed lines of work depending on market opportunities. Many reported bidding as both a prime and subcontractor, and pursuing both public and private sector work.
- Prime contractors' decisions to subcontract out work also change based on market conditions and their backlog of work. A number of prime contractors and subcontractors explained that primes are reluctant to subcontract work if they are slow and have the capabilities to perform that work with their own employees.
- In Nevada, a construction contractor can easily scale down the size of contracts he or she typically bids, but it is difficult to increase the size of contracts they bid. The Nevada State Contractors Board issues construction licenses that not only determine the type of work performed under the license but also the maximum contract or subcontract that can be bid by the firm. This affects small firms; the typical bid limit for a large, established contractor is "unlimited."
- Some interviewees reported that small businesses may be at a disadvantage because the acquisition of equipment and supplies are affected by the financial health of the company and its ability to obtain financing.

Importance of business relationships. Many prime contractors and subcontractors reported that opportunities to bid on work are based on existing relationships. Interviewees frequently reported the following.

- Prime contractors typically turn to subcontractors, trucking companies and suppliers they know from past work. Price of a bid is a factor in a prime contractor's subcontracting decision, but not the only consideration.

- It is difficult for a subcontractor to establish a relationship with a prime contractor that would allow their bids to be considered. "They have people they work with and tend to stay with these guys." And, new subcontractors' bids might be "shopped" so that the incumbent subcontractor or supplier can match or beat their price. Interviewees reported that bid shopping was prevalent in the Nevada construction industry, and one admitted to going back to preferred a subcontractor for a better bid when another subcontractor's bid is lower.

- Opportunities for a prime contractor or consultant to win work with a customer may also be based on prior relationships. One DBE business owner said that public agencies "kind of get used to a certain group of consultants they like and, honestly, they're usually 'big boys.'" This appears to be especially true for private sector work and engineering-related public sector work, but can affect other opportunities as well. One female business owner reported a negative experience attempting to market to NDOT, recalling that NDOT staff told her that she had to already be selling to NDOT to have an opportunity for any NDOT work.

- Prime contractors attempting to meet DBE contract goals tend to use the same DBE subcontractors, trucking companies and suppliers, further evidence of the advantage of "incumbency" in the Nevada transportation contracting industry.

The presence of a "good ol' boy" network affecting the construction and engineering industries in Nevada was widely reported across minority, female and white male interviewees.

- Many interviewees said that the good ol' boy network was pervasive in this industry in Nevada.

- Some of the interviewees and public meeting participants discussing the "good ol' boy" network said that it made it more difficult for minorities and women to be successful in the industry.

- Some larger majority-owned contractors admitted that they probably contribute to closed networks. According to the white male president of a large supplier, "We are the good ol' boys club. It's who we know that helps drive our success. My good ol' boy club is the people who are my gender, my age, that I've known for years that are loyal customers and what will we do … we'll go play golf and drink beer. It's personal networks." He reported that it is difficult for a minority to break into that network.

Disadvantages for small businesses. Many interviewees indicated that small businesses are at a disadvantage when competing in the transportation contracting industry.

- For many of the reasons discussed above, many small businesses including MBE/WBEs said that it was difficult to establish relationships with prime contractors and customers.
- As previously mentioned in this Chapter, the State Contractors Licensing Board sets limits on the size of contracts for which a contractor can submit a bid. This primarily affects small businesses rather than large businesses (which often get an "unlimited" bid amount).
- Some interviewees indicated that business size can affect access to financing.
- Some interviewees reported that small businesses are at a price disadvantage when purchasing supplies.

In addition, owners and managers of small businesses reported that public agency contracting processes and requirements often put small businesses at a disadvantage when competing for public sector work. There was qualitative evidence that:

- It is more difficult for smaller firms to market and identify contract opportunities.
- Overly complicated bidding processes can also present a barrier to firms seeking public sector work, especially if considerable time and expense is involved to submit a bid or proposal.
- Public sector bonding requirements present a barrier to bidding for small construction businesses seeking work as prime contractors and as subcontractors.
- The size and scope of public sector contracts presents a barrier to bidding.
- Public sector insurance requirements are a barrier to construction and engineering-related businesses seeking public sector prime contracts and subcontracts.
- Public agencies favor bidders and proposers they already know, limiting opportunities for other businesses.
- Public agency screening of potential contractors and engineering firms through prequalification can be a barrier to bidding. (According to one DBE firm owner, "To get prequalified, you absolutely have to have history doing that kind of work that you're trying to get prequalified for …. Not the person, the firm has to.")
- Slow payment by public agencies or by prime contractors can be especially damaging to small businesses and represent a barrier to performing that work. (Some interviewees said that they could not bid on certain sizes of contracts because they do not have the capital to wait an extended period of time to be paid. Interviewees also said that a subcontractor has to be careful about complaining that a prime contractor has not paid them because of retaliation by the prime contractor.)[4]

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[4] Several interviewees spoke favorably of NDOT's track record of payment, including its policy of paying prime contractors on a two week cycle and capping retention amounts. However, some engineering-related businesses said that NDOT payment could be very slow (60-90 days between invoice and payment). Some interviewees reported that prime contractors on NDOT contracts delay payment of their subcontractors.

MBE/WBEs in the Nevada transportation contracting industry are more likely than majority-owned businesses to be low-revenue businesses. Therefore, any barriers for small businesses may have a disproportionate effect on MBEs and WBEs. A number of minority and female business owners indicated that the major barriers they face are due to the size of their businesses and lack of relationships in the industry.

Stereotyping and other race and gender discrimination. In the in-depth interviews, availability interviews and other information the study team analyzed as part of the study, some interviewees indicated difficulties for minorities and women beyond those associated with being a small business.

- There was some evidence that some prime contractors or customers held negative stereotypes concerning minority- and women-owned firms.
- Some minority and female business owners reported that there were double standards for performance of work that adversely affected their firms. Some attributed the double standards to race and gender discrimination.
- Some interviewees and public meeting participants reported that MBEs and WBEs face other discrimination from prime contractors, customers or others based on race, ethnicity or gender. Some individuals reported negative experiences attempting to do business with NDOT.
- NDOT has investigated a number of complaints from DBEs about unfair treatment by prime contractors. Some interviewees in this study also reported abuse of the DBE contract goals program by prime contractors.

Appendix J presents views from a broad range of business owners and managers and others who are knowledgeable about the Nevada transportation contracting industry.

Qualitative information about public sector agencies and prime contractors from another recent disparity study in Nevada. The MGT of America 2000 disparity study for McCarran International Airport included in-depth interviews, focus groups and telephone interviews with business owners in the Las Vegas Metropolitan Area and public hearings in Las Vegas. In total, 407 business owners and representatives were included in this qualitative research. MGT's summary of results indicated:

- Prime contractor reluctance to work with MBE/WBEs and DBEs in the absence of a program;
- Abuse of the DBE Program by primes, including calling firms for bids too late for them to put together a bid, subverting the good faith efforts process; and
- Some specific incidents of discrimination by the Airport or Clark County, and several specific incidents of discrimination by prime contractors.

Effects of success of businesses. Minority- and women-owned construction and engineering businesses in Nevada tend to have lower revenue than majority-owned businesses. Any disadvantages for small businesses disproportionately affect MBEs and WBEs.

Some of the disadvantages for small firms are created or reinforced by requirements in Nevada state law (a topic for additional discussion in Chapter 8), and others are due to policies and procedures adopted by government agencies including NDOT.

Success in the transportation contracting industry depends on relationships with prime contractors and customers. There is substantial evidence that a pervasive "good ol' boy network" in Nevada places minority- and women-owned firms at a disadvantage in developing these relationships.

Many minority and female business owners reported that they were disadvantaged by their size and lack of relationships within the industry. Some interviewees also reported negative stereotypes and other forms of discrimination against minority- and women-owned businesses in Nevada.

Summary

As discussed in this Chapter, there is substantial qualitative information suggesting that there is not a level playing field for minority- and women-owned businesses in the Nevada transportation contracting industry. The quantitative information bolsters this anecdotal evidence.

Based upon the information in this Chapter and supporting appendices, there is evidence that, but for the continuing effects of past discrimination, the presence of minority- and women-owned firms in the Nevada transportation contracting industry might be greater.

- Such information is significant in the Chapter 9 discussion of setting an overall goal for DBE participation in NDOT FHWA-funded contracts.
- Marketplace dynamics reported in Chapter 4 are also important when considering other aspects of NDOT's operation of the Federal DBE Program, including its Small Business Program.
- Finally, there are elements in Nevada state statutes that may reinforce the effects of any discrimination against minority- and women-owned businesses in the Nevada transportation contracting industry. Chapter 10 explores avenues to address these potential barriers.

CHAPTER 5.
Availability Analysis

Keen Independent analyzed the availability of minority- and women-owned business enterprises (MBE/WBEs) that are ready, willing and able to perform NDOT and local agency prime contracts and subcontracts. NDOT can use availability results and other information from the study as it makes decisions about its future operation of the Federal DBE Program.

Chapter 5 describes the study team's availability analysis in eight parts:

A. Purpose of the availability analysis;

B. Definitions of MBEs, WBEs, certified DBEs, potential DBEs and majority-owned businesses;

C. Information collected about potentially available businesses;

D. Businesses included in the availability database;

E. MBE/WBE availability calculations on a contract-by-contract basis;

F. Availability results;

G. Base figure for NDOT's overall DBE goal; and

H. Implications for any DBE contract goals.

Appendix D provides supporting information.

A. Purpose of the Availability Analysis

Keen Independent examined the availability of MBE/WBEs for transportation contracts to develop:

1. A benchmark used in the disparity analysis; and
2. The base figure for NDOT's overall DBE goal.

1. Benchmark in the disparity analysis. The disparity analysis compares NDOT's utilization of MBE/WBEs against an availability benchmark.

- The disparity analysis compares the percentage of NDOT contract dollars that went to minority- and women-owned firms (MBE/WBE "utilization") to the percentage of dollars that might be expected to go to those businesses based on their availability for specific types and sizes of NDOT contracts (MBE/WBE "availability").
- Comparisons between utilization and availability identify whether any MBE/WBE groups were underutilized based on their availability for NDOT work.

2. Base figure for NDOT's overall DBE goal. Part of NDOT's operation of the Federal DBE Program is establishing an overall goal for DBE participation in its FHWA-funded contracts.

- Setting an overall DBE goal begins with calculating a base figure for the availability of DBEs, similar to determining MBE/WBE availability in a disparity analysis.[1]
- The base figure calculation only includes those MBE/WBEs that appear that they would be eligible for DBE certification ("potential DBEs").
  - The Final Rule effective February 28, 2011 and the United States Department of Transportation's (USDOT's) "Tips for Goal-Setting" explain that minority- and women-owned firms that are not currently certified as DBEs but that could be DBE-certified should be counted as DBEs in the base figure.
  - However, businesses that have been denied certification, have been decertified or have graduated from the DBE Program should not be counted in the base figure.

The balance of Chapter 5 explains each step in determining the availability benchmarks and the base figure for NDOT's overall DBE goal, beginning with definitions of terms.

B. Definitions of MBEs, WBEs, Certified DBEs, Potential DBEs and Majority-owned Businesses

The two results of the availability analysis discussed above — availability benchmark and base figure — use the same definitions of minority- and women-owned firms, but different accounting of potential DBEs.

MBE/WBEs. The availability benchmark and base figure availability results use the same definitions of minority- and women-owned firms (MBE/WBEs).

Race, ethnic and gender groups. As specified in 49 Code of Federal Regulations (CFR) Part 26, the study team separately examined utilization, availability and disparity results for businesses owned by:

- African Americans;
- Asian-Pacific Americans;
- Subcontinent Asian Americans;
- Hispanic Americans;
- Native Americans; and
- Non-Hispanic white women.

Finally, "majority-owned businesses" are businesses that are not minority- or women-owned.

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[1] 49 CFR Section 26.45 (c).

All MBE/WBEs, not only certified DBEs. When availability results are used as a benchmark in the disparity analysis, all minority- and women-owned firms are counted as such whether or not they are certified as DBEs or as MBEs or WBEs. Researching whether race- or gender-based discrimination has affected the participation of MBE/WBEs in contracting is properly analyzed based on the race/ethnicity and gender of business ownership and not on DBE certification status.

- Analyzing the availability and utilization of minority- and women-owned firms regardless of DBE/MBE/WBE certification allows one to assess whether there are disparities affecting *all* MBE/WBEs and not just certified businesses. Businesses may be discriminated against because of the race or gender of their owners regardless of whether they have successfully applied for certification.

- Moreover, the study team's analyses of whether MBE/WBEs face disadvantages include the most successful, highest-revenue MBE/WBEs. A disparity study that focuses only on MBE/WBEs that are, or could be, DBE-certified would improperly compare outcomes for "economically disadvantaged" businesses with all other businesses, including both non-Hispanic white male-owned businesses and relatively successful MBE/WBEs.[2] Limiting the analyses to a group of businesses that only includes low-revenue companies would have inappropriately made it more likely for the study team to observe disparities for MBE/WBE groups.[3]

The courts that have reviewed disparity studies have accepted analyses based on the race, ethnicity and gender of business ownership rather than on DBE certification status.

Certified DBEs. Certified DBEs are businesses that are certified as such through NDOT or other DBE-certifying agencies in Nevada, which means that they are businesses that:

- Are owned and controlled by one or more individuals who are presumed to be both socially and economically disadvantaged according to 49 CFR Part 26;[4] and
- Meet the gross revenue and personal net worth requirements described in 49 CFR Part 26.

Because implementation of the Federal DBE Program requires NDOT to track DBE utilization, Keen Independent reports utilization results for all MBE/WBEs and separately for those MBE/WBEs that are DBE-certified. The study does not use availability or disparity analysis results for certified DBEs and no such figures are calculated.

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[2] In addition, 49 CFR Part 26 allows certification of white male-owned businesses as DBEs. Thus, disparity analyses based on certified DBEs might not purely be an analysis of disparities based on race/ethnicity and gender.

[3] An analogous situation concerns analysis of possible wage discrimination. A disparity analysis that would compare wages of minority employees to wages of all employees should include both low- and high-wage minorities in the statistics for minority employees. If the analysis removed high-wage minorities from the analyses, any comparison of wages between minorities and non-minorities would more likely show disparities in wage levels.

[4] The Federal DBE Program specifies that African Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Subcontinent Asian Americans, women of any race or ethnicity, and any additional groups whose members are designated as socially and economically disadvantaged by the Small Business Administration are presumed to be disadvantaged.

Businesses owned by minority women. Businesses owned by minority women presented a data coding challenge in the availability and utilization analyses. "WBEs" in this report refers to non-Hispanic white women-owned businesses. Businesses owned by minority women are included with the results for each minority group.

This definition of WBEs gives NDOT information to answer questions that sometimes arise pertaining to the utilization of non-Hispanic white women-owned businesses, such as whether the work that goes to MBE/WBEs disproportionately goes to businesses owned by non-Hispanic white women.

Keen Independent chose not to code businesses as both women-owned and minority-owned to avoid double-counting certain businesses when reporting total MBE/WBE utilization and availability. Creating groups of minority women-owned businesses that were distinct from minority male-owned businesses (e.g., African American women-owned businesses versus African American male-owned businesses) was also unworkable because some minority groups had utilization and availability so low that further disaggregation by gender made it even more difficult to interpret the results.

Keen Independent's approach is consistent with court decisions that have considered this issue.

Potential DBEs. Potential DBEs are MBE/WBEs that are DBE-certified or appear that they could be DBE-certified based on revenue requirements described in 49 CFR Section 26.65 (regardless of actual certification). Potential DBEs do not include businesses that have been decertified or had graduated from the DBE Program. Keen Independent examined the availability of potential DBEs as part of helping NDOT calculate the base figure of its overall DBE goal. Figure 5-1 provides further explanation of Keen Independent's definition of potential DBEs.

Figure 5-1.
Definition of potential DBEs

To help NDOT calculate its overall DBE goal, Keen Independent did not include the following types of MBE/WBEs in its definition of potential DBEs:

- MBE/WBEs that had graduated from the DBE Program and not been recertified;
- MBE/WBEs that are not currently DBE-certified that had applied for certification with NDOT and had been denied; and
- MBE/WBEs that are not currently DBE-certified that appeared to have average annual revenues over the most recent three years so high as to deem them ineligible for DBE certification.

At the time of this study, the overall revenue limit for DBE certification was $22,410,000 based on a three-year average of gross receipts. There were lower revenue limits for specific subindustries according to the U.S. Small Business Administration (SBA) small business size standards. Some MBE/WBEs appeared to have exceeded those revenue limits based on information that they provided as part of availability interviews. The revenue categories used to classify firms reflect recent changes to the Table of Small Business Size Standards published by the SBA.

Business owners must also meet USDOT personal net worth limits for their businesses to qualify for DBE certification. The personal net worth of business owners was not available as part of this study and thus was not considered when determining potential DBE status.

Majority-owned businesses. Majority-owned businesses are businesses that are not owned by minorities or women (i.e., businesses owned by non-Hispanic white males).

- In the utilization and availability analyses, the study team coded each business as minority-, women-, or majority-owned.
- Majority-owned businesses included any non-Hispanic white male-owned businesses that were certified as DBEs.[5]

All other businesses. The study team categorized all businesses that were not "potential DBEs" as "all other businesses" in the base figure analysis. All other businesses included all MBE/WBEs that were not currently DBE-certified and that:

- Had graduated from the DBE Program (and not been recertified);
- Had been denied DBE certification; or
- Appeared to be too large for DBE certification based on revenue size standards in 49 CFR Section 26.65.

All other businesses also included majority-owned businesses that were not DBE-certified (which in the availability analysis was all majority-owned businesses).

C. Information Collected about Potentially Available Businesses

Keen Independent's availability analysis focused on firms with Nevada locations that work in subindustries related to NDOT transportation-related construction and engineering contracts.

Based on review of NDOT and LPA Program prime contracts and subcontracts during the study period, the study team identified specific subindustries for inclusion in the availability analysis. Keen Independent used several methods to contact businesses within those subindustries to collect information about their availability for specific types, sizes and locations of NDOT and local agency prime contracts and subcontracts.

Keen Independent's method of examining availability is sometimes referred to as a "custom census" and has been accepted in federal court. Figure 5-2 summarizes characteristics of Keen Independent's custom census approach to examining availability.

Figure 5-2.
Summary of the strengths of Keen Independent's "custom census" approach

Federal courts have reviewed and upheld "custom census" approaches to examining availability. Compared with some other previous court-reviewed custom census approaches, Keen Independent added several layers of screening to determine which businesses are potentially available for work in the transportation contracting industry in Nevada.

For example, the Keen Independent analysis included discussions with businesses about interest in NDOT and local government work, contract role and geographic locations of their work — items not included in some of the previous court-reviewed custom census approaches. Keen Independent also analyzed the sizes of contracts and subcontracts on which businesses have bid on or performed in the past.

[5] Keen Independent did not identify any DBE-certified white male-owned businesses that were utilized on or were potentially available for NDOT transportation contracts.

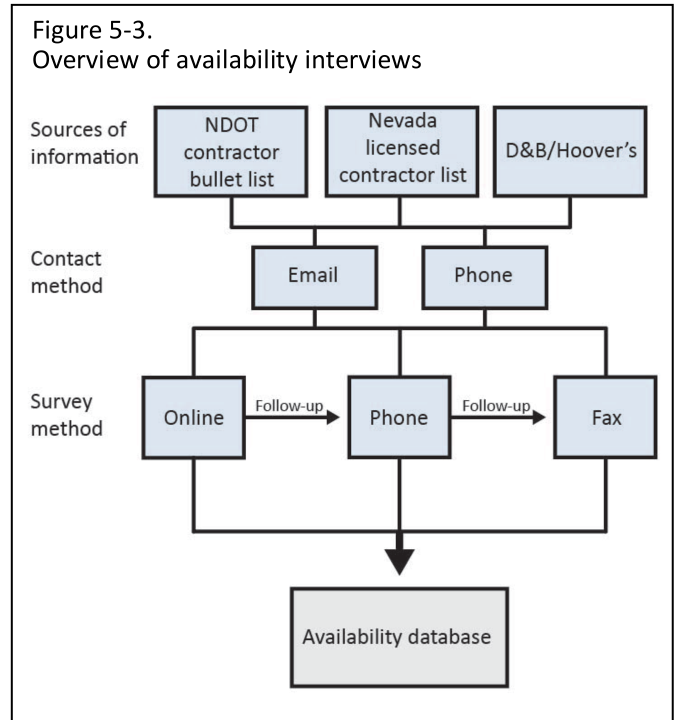
Overview of availability interviews. The study team conducted online and telephone interviews with business owners and managers to identify businesses that are potentially available for NDOT and local agency transportation prime contracts and subcontracts.[6] Figure 5-3 summarizes the process for identifying businesses and then contacting them to complete interviews.

Keen Independent began by compiling lists of business establishments that:

- Previously identified themselves to NDOT as interested in learning about future work (by subscribing to NDOT's Contractors Bulletin);
- Had contractors licenses in Nevada in fields pertinent to NDOT transportation construction contracts; and/or
- Dun & Bradstreet identified in certain transportation contracting-related subindustries in Nevada.[7]

Keen Independent used additional databases to supplement the contact information provided in the above sources.

Figure 5-3.
Overview of availability interviews



Online and telephone interviews. Figure 5-3 outlines the methods Keen Independent used to complete interviews with businesses possibly available for NDOT work.

- When the source data included email addresses for firms, the study team sent emails that contained an interview explanation and request (addressed from the NDOT Executive Director Rudy Malfabon) and a link to the online interview.
- Source data for some firms only included phone numbers. The study team contacted those firms by telephone to ask them to participate in the online interviews (identifying NDOT as the organization requesting the information). Firms indicating over the phone that they were not interested or involved in transportation contracting work were not asked to complete the other interview questions.
- Some firms immediately completed online interviews. For firms not immediately responding, the study team executed intensive follow-up over many weeks through email, telephone or both methods. Many interviews were completed by telephone.

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[6] The study team offered business representatives the option of completing interviews via fax or e-mail if they preferred not to complete interviews via telephone.

[7] D&B's Hoover's database is accepted as the most comprehensive and complete source of business listings in the nation. Keen Independent collected information about all business establishments listed under 8-digit work specialization codes (as developed by D&B) that were most related to the transportation contracts that NDOT awarded during the study period.

- Businesses could also learn about the availability interviews or complete the interviews via other methods:
  - Businesses could complete the interview via fax.
  - Keen Independent posted information about the online interviews on the disparity study website maintained throughout the project. Interested companies could download a questionnaire from the website.
  - Keen Independent also maintained a "hot line" that anyone could call for more information about any aspect of the study.
  - After completing an online interview, some business owners asked if they could complete another online interview for a second business they owned. Keen Independent responded to these requests by adding the second company to the online interview list.

Information collected in availability interviews. Interview questions covered many topics about each organization, including:

- Status as a private business (as opposed to a public agency or not-for-profit organization);
- Status as a subsidiary or branch of another company;
- Types of transportation contract work performed (from grading to traffic control for construction and from highway design to surveying for engineering-related work);
- Qualifications and interest in performing transportation-related work for NDOT and local governments in Nevada;
- Qualifications and interest in performing transportation-related work as a prime contractor or as a subcontractor (or trucking company or materials supplier);
- Past work in Nevada as a prime contractor or as a subcontractor, trucker or supplier;
- Ability to work in specific geographic regions of Nevada (Northwest, Northeast and South);
- Largest prime contract or subcontract bid on or performed in Nevada in the previous five years;
- Year of establishment; and
- Race/ethnicity and gender of ownership.

Appendix D provides an availability interview instrument.

Considering businesses as potentially available. The study team asked business owners and managers that they successfully contacted several questions concerning the types of work that their companies performed; their past bidding history; and their qualifications and interest in working on contracts for NDOT and local government agencies, among other topics. Keen Independent considered businesses to be potentially available for NDOT transportation prime contracts or subcontracts if they reported possessing *all* of the following characteristics:

a. Being a private business (as opposed to a public agency or not-for-profit organization);

b. Performing work relevant to NDOT transportation contracting;

c. Having bid on or performed transportation-related public or private sector prime contracts or subcontracts in Nevada in the previous five years; and

d. Qualifications for and interest in work for NDOT or local governments.[8]

Keen Independent also considered the following information to determine if businesses were potentially available for specific contracts or subcontracts that NDOT and local agencies awarded during the study period:

e. Qualifications and interest in prime contract and/or subcontractor, supplier or trucking work;

f. Ability to work in a specific region of Nevada;

g. Largest contract bid on or performed in Nevada in the previous five years; and

h. Year the business was established.

D. Businesses Included in the Availability Database

After conducting availability interviews with thousands of Nevada businesses, the study team developed a database of information about businesses that are potentially available for NDOT transportation contracting work. The study team used the availability database to produce availability benchmarks to:

- Determine whether there were any disparities in NDOT and local agency utilization of MBE/WBEs during the study period; and
- Help calculate a base figure for NDOT's overall DBE goal.

Data from the availability interviews allowed Keen Independent to develop a representative depiction of businesses that are qualified and interested in NDOT work, but it should not be considered an exhaustive list of every business that could potentially participate in NDOT transportation work. Appendix D provides a detailed discussion about why the database should not be considered an exhaustive list of potentially available businesses.

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[8] That information was gathered separately for prime contract and subcontract work.

Figure 5-4 presents the number of businesses that the study team included in the availability database for each racial/ethnic and gender group. The study team's research identified 671 businesses available for specific transportation contracts that NDOT and local agencies awarded during the study period. Of those businesses 168 (25%) were MBEs or WBEs.

Because results are based on a simple count of firms with no analysis of availability for specific NDOT contracts, they only reflect the first step in the availability analysis.

Figure 5-4.
Number of businesses included in the availability database

Note:

Numbers rounded to nearest tenth of 1 percent. Numbers may not add to totals due to rounding.

Source:

Keen Independent availability analysis.

Race/ethnicity and gender	Number of firms	Percent of firms
African American-owned	13	1.9 %
Asian-Pacific American-owned	8	1.2
Subcontinent Asian American-owned	3	0.4
Hispanic American-owned	51	7.6
Native American-owned	6	0.9
Total MBE	81	12.1 %
WBE (white women-owned)	87	13.0
Total MBE/WBE	168	25.0 %
Total majority-owned firms	503	75.0
Total firms	671	100.0 %

E. MBE/WBE Availability Calculations on a Contract-by-Contract Basis

Keen Independent analyzed information from the availability database to develop dollar-weighted availability estimates for use as a benchmark in the disparity analysis and in helping NDOT set its overall DBE goal.

- Dollar-weighted availability estimates represent the percentage of NDOT transportation contracting dollars that MBE/WBEs might be expected to receive based on their availability for specific types and sizes of NDOT transportation-related construction and engineering prime contracts and subcontracts.

- Keen Independent's approach to calculating availability was a bottom up, contract-by-contract process of "matching" available firms to specific prime contracts and subcontracts.

Steps to calculating availability. Only a proportion of the businesses in the availability database were considered potentially available for any given NDOT construction or engineering prime contract or subcontract (referred to collectively as "contract elements"). The study team first examined the characteristics of each specific contract element, including type of work, location of work, contract size and contract date. The study team then identified businesses in the availability database that perform work of that type, in that location, of that size, in that role (i.e., prime contractor or subcontractor), and that were in business in the year that the contract element was awarded.

The study team identified the specific characteristics of each of the 1,896 NDOT and local agency prime contracts and subcontracts included in the utilization analysis and then took the following steps to calculate availability for each contract element:

1. For each contract element, the study team identified businesses in the availability database that reported that they:
   - Are qualified and interested in performing transportation-related work in that particular role for that specific type of work for NDOT or local agencies;
   - Had performed work in the particular role in Nevada within the past five years;
   - Are able to do work in that geographic location;
   - Had bid on or performed work of that size in Nevada in the past five years; and
   - Were in business in the year that the contract or task order was awarded.
2. For that contract element, the study team then counted the number of MBEs (by race/ethnicity), WBEs and majority-owned businesses among all businesses in the availability database that met the criteria specified in Step 1.
3. The study team translated the numeric availability of businesses for the contract element into percentage availability (as described in Figure 5-5).

The study team repeated those steps for each contract element examined as part of the disparity study. The study team multiplied the percentage availability for each contract element by the dollars associated with the contract element, added results across all contract elements, and divided by the total dollars for all contract elements. The result was a dollar-weighted estimate of overall availability of MBE/WBEs and estimates of availability for each MBE/WBE group. Figure 5-5 provides an example of how Keen Independent calculated availability for a specific subcontract associated with a construction prime contract that NDOT awarded during the study period.

Improvements on a simple "head count" of businesses. Keen Independent used a "custom census" approach to calculating MBE/WBE availability for NDOT work rather than using a simple "head count" of MBE/WBEs (i.e., simply calculating the

Figure 5-5.
Example of an availability calculation for a NDOT subcontract

There was an electrical subcontract for about $22,000 on a 2010 NDOT-awarded contract in District 2. To determine the overall availability of MBE/WBEs for that subcontract, the study team identified businesses in the availability database that:

a. Were in business in 2010;
b. Indicated that they performed electrical work related to road projects;
c. Reported working or bidding on subcontracts in Nevada in the past five years;
d. Reported bidding on work of similar or greater size in the past five years;
e. Reported ability to perform work in Northwestern Nevada; and
f. Reported qualifications and interest in working as a subcontractor on NDOT transportation projects.

There were 55 businesses in the availability database that met those criteria. Of those businesses, 19 were MBEs or WBEs. MBE/WBE availability for the subcontract was 35 percent (i.e., 19/55 x 100 = 35%).

percentage of all Nevada transportation contracting businesses that are minority- or women-owned). Using a custom census approach typically results in lower availability estimates for MBEs and WBEs than a headcount approach due in large part to Keen Independent's consideration of "bid capacity" in measuring availability and because of dollar-weighting availability results for each contract element (a large prime contract has a greater weight in calculating overall availability than a small subcontract). The largest contracts that MBE/WBEs have bid on or performed in Nevada tend to be smaller than those of other businesses. Therefore, MBE/WBEs are less likely to be identified as available for the largest prime contracts and subcontracts.

There are several important ways in which Keen Independent's custom census approach to measuring availability is more precise than completing a simple head count.

Keen Independent's approach accounts for type of work. USDOT suggests calculating availability based on businesses' abilities to perform specific types of work. USDOT gives the following example in Part II F of "Tips for Goal-Setting in the Disadvantaged Business Enterprise (DBE) Program":

> *For instance, if 90 percent of your contract dollars will be spent on heavy construction and 10 percent on trucking, you should weight your calculation of the relative availability of firms by the same percentages.*[9]

The study team took type of work into account by examining 31 different subindustries related to construction and engineering as part of estimating availability for NDOT work.

Keen Independent's approach accounts for qualifications and interest in transportation-related prime contract and subcontract work. The study team collected information on whether businesses are qualified and interested in working as prime contractors, subcontractors, or both on NDOT and local agency transportation work, in addition to the consideration of several other factors related to prime contracts and subcontracts (e.g., contract types, sizes and locations):

- Only businesses that reported being qualified for and interested in working as prime contractors were counted as available for prime contracts;
- Only businesses that reported being qualified for and interested in working as subcontractors were counted as available for subcontracts; and
- Businesses that reported being qualified for and interested in working as both prime contractors and subcontractors were counted as available for both prime contracts and subcontracts.

Keen Independent's approach accounts for the size of prime contracts and subcontracts. The study team considered the size — in terms of dollar value — of the prime contracts and subcontracts that a business bid on or received in the previous five years (i.e., bid capacity) when determining whether to count that business as available for a particular contract element. When counting available businesses for a particular prime contract or subcontract, the study team considered whether

[9] USDOT. Tips for Goal-Setting in the Federal Disadvantaged Enterprise (DBE) Program as updated June 25, 2013 http://www.dot.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise.

businesses had previously bid on or received at least one contract of an equivalent or greater dollar value in Nevada in the previous five years.

Keen Independent's approach is consistent with many recent, key court decisions that have found relative capacity measures to be important to measuring availability (e.g., *Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation, et al.*; *Western States Paving Company v. Washington State DOT*; *Rothe Development Corp. v. U.S. Department of Defense;*[10] and *Engineering Contractors Association of S. Fla. Inc. vs. Metro Dade County*[11]).

Keen Independent's approach accounts for the geographic location of the work. The study team determined the location where work was performed for NDOT and local agency contracts.

As part of the availability interviews, the study team collected information on whether businesses could perform work in:

- Southern Nevada (such as the Las Vegas area);
- Northwestern Nevada (such as the Reno area); and
- Northeastern Nevada (such as in the Elko or Ely areas).

Keen Independent's approach generates dollar-weighted results. Keen Independent examined availability on a contract-by-contract basis and then dollar-weighted the results for different sets of contract elements. Thus, the results of relatively large contract elements contributed more to overall availability estimates than those of relatively small contract elements. Keen Independent's approach is consistent with USDOT's "Tips for Goal-Setting in the Disadvantaged Business Enterprise (DBE) Program," which suggests a dollar-weighted approach to calculating availability.

F. Availability Results

Keen Independent used the custom census approach described above to estimate the availability of MBE/WBEs and majority-owned businesses for 1,896 transportation-related construction and engineering prime contracts and subcontracts that NDOT and local agencies awarded during the study period.

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[10] *Rothe Development Corp. v. U.S. Department of Defense*, 545 F.3d 1023 (Fed. Cir. 2008).

[11] *Engineering Contractors Association of S. Fla. Inc. vs. Metro Dade County*, 943 F. Supp. 1546 (S.D. Fla. 1996).

Figure 5-6 presents overall dollar-weighted availability estimates by MBE/WBE group for those contracts. Overall, MBE/WBE availability for NDOT transportation contracts is 7.4 percent. Native American-owned firms (2.8%), Hispanic American-owned businesses (2.4%) and WBEs (1.2%) had highest availability percentages among all MBE/WBE groups. Note that availability estimates varied when the study team examined different subsets of those contracts.

Figure 5-6.
Overall dollar-weighted availability estimates by MBE/WBE group

Note:

Results are for FHWA- and state-funded NDOT and LPA Program transportation contracts for 2007 through June 2012.

Numbers rounded to nearest tenth of 1 percent, so availability of Asian-Pacific American-owned firms (0.03%) shown as "0.0%."

For more detail and results by group, see Figure K-2 in Appendix K.

Source:
Keen Independent availability analysis.

Race/ethnicity and gender	Utilization benchmark (availability %)
African American-owned	0.3 %
Asian-Pacific American-owned	0.0
Subcontinent Asian American-owned	0.7
Hispanic American-owned	2.4
Native American-owned	2.8
Total MBE	6.2 %
WBE (white women-owned)	1.2
Total MBE/WBE	7.4 %

Availability by region. Some people interviewed as part of this study reported that DBE availability was lower in some parts of the state, especially District 3 (Northeastern Nevada). Although there may be a small number of DBEs in District 3, Keen Independent's availability results did not vary much between NDOT districts. Because contracts and subcontracts were smaller in District 3, and many firms outside District 3 reported ability to work in that part of the state, MBE/WBE availability for District 3 contracts were similar to the state-wide results in Figure 5-6.

G. Base Figure for NDOT's Overall DBE Goal

Establishing a base figure is the first step in calculating an overall goal for DBE participation in NDOT's FHWA-funded transportation contracts. Keen Independent calculated the base figure using the same availability database and approach described above. For the base figure, calculations focus on potential DBEs (including currently certified DBEs) and only included FHWA-funded prime contracts and subcontracts. Keen Independent's approach to calculating NDOT's base figure is consistent with:

- Court-reviewed methodologies in several states, including Washington, California, Illinois, and Minnesota;
- Instructions in The Final Rule effective February 28, 2011 that outline revisions to the Federal DBE Program; and
- USDOT's "Tips for Goal-Setting in the Disadvantaged Business Enterprise (DBE) Program."

For details about NDOT's base figure for its overall DBE goal, see Chapter 9.

Base figure for FHWA-funded contracts. Keen Independent's availability analysis indicates that the availability of potential DBEs for NDOT's FHWA-funded transportation contracts is 4.5 percent from review of FHWA-funded NDOT and LPA Program contracts awarded from 2010 through June 2012. This most-recent time period is more representative of NDOT's future FHWA-funded contracts going forward than the 2007-June 2012 study period as a whole.

NDOT might consider 4.5 percent as the base figure for its overall goal for DBE participation.[12]

Differences from overall MBE/WBE availability. The availability of potential DBEs for FHWA-funded contracts is less than the overall MBE/WBE availability presented in Figure 5-6. Keen Independent's calculation of overall MBE/WBE availability includes three groups of MBE/WBEs that the study team did not count as potential DBEs when calculating the base figure:

- MBE/WBEs that graduated from the DBE Program (that were not recertified);
- MBE/WBEs that are not currently DBE-certified that had applied for DBE certification with NDOT and had been denied; and
- MBE/WBEs that are not currently DBE-certified that reported annual revenues over the most recent three years so high as to deem them ineligible for DBE certification.

In addition, the study team's analyses for calculating the base figure for FHWA-funded contracts only included FHWA-funded prime contracts and subcontracts. The calculations for overall MBE/WBE availability included both FHWA- and state-funded transportation prime contracts and subcontracts.

Additional steps before NDOT determines its overall DBE goal. NDOT must consider whether to make a "step-2" adjustment to the base figure as part of determining its overall DBE goal. Step-2 adjustments can be upward or downward, but there is no requirement for NDOT to make a step-2 adjustment as long as the agency can explain what factors it considered and why no adjustment was warranted. Chapter 9 discusses factors that NDOT might consider in deciding whether to make a step-2 adjustment to the base figure.

H. Implications for Any DBE Contract Goals

If NDOT chooses to use DBE contract goals in the future, it might use information from the availability analysis when setting any contract-specific DBE goals. It might also use information from the Nevada Unified Certification Program (NUCP), a current bidders list or other sources that could provide information about the availability of MBE/WBEs to participate in particular contracts.

The Federal DBE Program provides agencies that use DBE contract goals with some flexibility in how they set DBE contract goals. DBE goals on some contracts might be higher or lower than the overall DBE goal. In addition, there may be some FHWA-funded contracts for which setting DBE contract goals would not be appropriate.

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[12] NDOT should review whether the types, sizes and locations of FHWA-funded contracts that the agency awarded during the 2010-June 2012 study period are similar to those anticipated for the time covered by the new overall DBE goal.

CHAPTER 6.
Utilization Analysis

Chapter 6 examines participation of minority- and women-owned firms on NDOT and LPA Program transportation contracts from 2007 through June 2012. Chapter 6 is organized in four parts:

A. Overview of the utilization analysis;

B. MBE/WBE utilization on NDOT and LPA Program transportation contracts;

C. MBE/WBE utilization on contracts with and without DBE contract goals;

D. Changes in MBE/WBE and DBE utilization during the study period; and

E. MBE/WBE utilization on construction and engineering-related contracts.

Figure 6-1.
Defining and measuring "utilization"

"Utilization" of MBE/WBEs refers to the share of prime contract and subcontract dollars that an agency awarded to MBE/WBEs during a particular time period. Keen Independent measures the utilization of all MBE/WBEs, regardless of certification. The study team reports utilization for firms owned by different racial, ethnic and gender groups.

Keen Independent measures MBE/WBE utilization as percentage of total prime contract and subcontract dollars. For example, if 5 percent of prime contract and subcontract dollars went to WBEs during the study period, WBE utilization would be 5 percent.

Information about MBE/WBE utilization is instructive on its own, but it is even more useful when it is compared with the utilization that might be expected based on the availability of MBE/WBEs for NDOT work. The study team presents such comparisons as part of the "disparity analysis" in Chapter 7.

Chapter 3 and Appendix C describe utilization data collection.

A. Overview of the Utilization Analysis

NDOT awards "contracts" and "agreements" to prime contractors and consultants. The utilization analysis refers to all such work as "contracts."

- Keen Independent analyzed FHWA-funded and state-funded NDOT transportation contracts awarded from January 1, 2007 through June 30, 2012.[1]
- Through its Local Public Agency (LPA) Program, NDOT also uses FHWA and state monies to help fund local agency transportation work. Local agencies independently award contracts funded through the LPA Program.

Calculation of "utilization." The study team measured MBE/WBE "utilization" as the percentage of prime contract and subcontract dollars that NDOT and local agencies awarded to MBE/WBEs during the study period (see Figure 6-1). [2] Keen Independent calculated MBE/WBE utilization for a group of contracts by dividing the contract dollars going to MBE/WBEs by the contract dollars for all firms.

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[1] Plus task orders or amendments issued within the study period on previously-awarded contracts. Time period for LPA Program contracts based on timing of NDOT's LPA agreement with the local agency, not date of contract award.

[2] Note that prime contractors, not NDOT or local agencies, "award" subcontracts to subcontractors. To simplify the discussion, NDOT and local agency "award" of contract elements is used here and throughout the report.

Different results than in NDOT Uniform Reports of DBE Commitments/Awards and Payments. USDOT requires agencies such as NDOT to submit reports about its DBE utilization on its FHWA-funded transportation contracts twice each year (typically in April and October).

Keen Independent's analysis of MBE/WBE utilization goes beyond what NDOT currently reports to FHWA, as explained below.

- **All MBE/WBEs, not just certified DBEs.** Per USDOT regulations, NDOT's utilization reports for FHWA-funded contracts focus exclusively on certified DBEs.

  Keen Independent's utilization analyses include the utilization of *all* firms identified as MBE/WBEs — not just the utilization of certified DBEs. Keen Independent's analyses include the utilization of MBE/WBEs that may have once been DBE-certified and graduated (or let their certifications lapse) and the utilization of MBE/WBEs that have never been DBE-certified. (Keen Independent separately reports utilization of MBE/WBEs that were DBE-certified during the study period.[3])

- **All transportation contracts, not just FHWA-funded contracts.** Because FHWA requires NDOT to prepare DBE utilization reports on its FHWA-funded transportation contracts, NDOT's reports do not include state-funded contracts.

  Keen Independent analyzed MBE/WBE utilization on both FHWA- and state-funded transportation contracts. Information about state-funded contracts is useful in a disparity analysis as no DBE contract goals were applied. (USDOT suggests that agencies should examine MBE/WBE utilization on contracts to which DBE contract goals do not apply when designing future operation of the Federal DBE Program.[4]) Keen Independent's estimate of DBE participation on just FHWA-funded contracts during the study period (1.9%) is about the same as the overall DBE participation NDOT reported over a similar time period.

- **LPA Program contracts, not just NDOT contracts.** To fully comply with USDOT reporting requirements, NDOT should consistently include DBE participation on FHWA-funded LPA Program contracts in its reports to FHWA. To date, it has not.

  With NDOT's assistance, Keen Independent collected data on LPA Program contracts from local agencies as part of the disparity study. The utilization results include these contracts.

- **Transportation contracts, not all FHWA-funded contracts.** Per USDOT requirements, NDOT's DBE participation reports to FHWA might properly include any FHWA-funded contracts regardless of the type of work involved.

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[3] Although businesses that are owned and operated by socially- and economically-disadvantaged white men can become certified as DBEs, Keen Independent identified no DBE-certified white male-owned businesses that NDOT utilized during the study period. In other words, all DBEs that NDOT utilized during the study period were MBE/WBEs. Thus, utilization results for certified DBEs are a subset of the utilization results for all MBE/WBEs.

[4] http://www.dotcr.ost.dot.gov/Documents/Dbe/49CFRPART26.doc.

The disparity study focuses on transportation-related contracts. As explained in Chapter 3, Keen Independent did not include contracts for items not directly related to transportation construction or engineering.

B. MBE/WBE Utilization on NDOT and LPA Program Transportation Contracts

Figure 6-2 presents overall MBE/WBE utilization (as a percentage of total dollars) on NDOT and LPA Program construction and engineering-related contracts awarded during the study period. Results include prime contract and subcontract dollars for both FHWA- and state-funded contracts. The darker portion of the bar presents utilization of MBE/WBEs that were DBE-certified.

Figure 6-2.
MBE/WBE and DBE share of prime contract/subcontract dollars for NDOT and LPA Program transportation construction and engineering contracts, Oct. 1999-June 2012

Note:

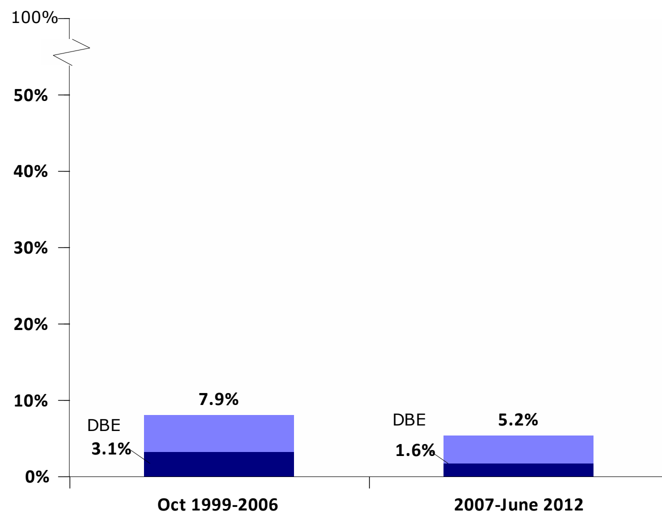
Certified DBE utilization.

Number of contracts/subcontracts analyzed is 1,896.

For more detail and results by group for 2007-June 2012, see Figure K-2 in Appendix K.

Source:

Keen Independent from data on NDOT and LPA Program contracts 2007-June 2012, and BBC Research & Consulting, Availability and Disparity Study, 2007.



As shown in Figure 6-2, overall, MBE/WBEs received 5.2 percent of NDOT and LPA Program contract dollars during the 2007 through June 2012 study period. About 1.6 percent of contract dollars went to MBE/WBEs that were DBE-certified (in the same year of the contract). Minority- and women-owned firms not certified as DBEs accounted for difference between total MBE/WBE utilization and total DBE utilization.

The 2007 Disparity Study reported 7.9 percent MBE/WBE utilization for October 1999 through 2006, higher than found for 2007-June 2012. DBE participation for October 1999 through 2006 was 3.1 percent, about double the DBE utilization for 2007-June 2012.[5] The Federal DBE Program was in place for most of the October 1999 through 2006 time period.

[5] Although the 2007 Study did not include LPA Program contracts and may have captured fewer types of NDOT contracts, these decreases in MBE/WBE and DBE utilization would still be seen if data were perfectly comparable between the two time periods.

Figure 6-3 examines utilization for 2007 through June 2012 for each MBE/WBE group. Hispanic American-owned businesses ($49 million) and WBEs ($63 million) accounted for 5.1 percentage points of the 5.2 percent MBE/WBE utilization from 2007 through June 2012. Utilization of other MBE groups totaled 0.1 percent. Most certified DBE participation was Hispanic American-owned and white women-owned DBEs, as shown on the bottom half of Figure 6-3.

Results for October 1999 through 2006 are shown in the first data column of Figure 6-3. Utilization dropped between these time periods for Asian-Pacific American-, Subcontinent Asian American- and Native American-owned firms.

Figure 6-3.
MBE/WBE and DBE share of prime contract and subcontract dollars for NDOT and LPA Program contracts, 2007-June 2012 and October 1999-2006

	Oct 99-2006	2007-June 2012	
	Percent	$ in thousands	Percent
MBE/WBEs			
African American-owned	0.1 %	$1,665	0.1 %
Asian-Pacific American-owned	0.1	44	0.0
Subcontinent Asian American-owned	0.2	0	0.0
Hispanic American-owned	2.2	48,748	2.2
Native American-owned	1.8	644	0.0
WBE (white women-owned)	3.4	63,492	2.9
Total MBE/WBE	**7.9 %**	**$114,594**	**5.2 %**
Majority-owned	92.1	2,082,371	94.8
Total	**100.0 %**	**$2,196,965**	**100.0 %**
DBEs			
African American-owned	0.1 %	$1,663	0.1 %
Asian-Pacific American-owned	0.1	0	0.0
Subcontinent Asian American-owned	0.0	0	0.0
Hispanic American-owned	1.3	21,229	1.0
Native American-owned	0.1	617	0.0
Unknown minority DBE	0.0	0	0.0
WBE (white women-owned)	1.5	12,707	0.6
White male-owned DBE	0.1	0	0.0
Total DBE	**3.1 %**	**$36,216**	**1.6 %**
Non-DBE	96.8	2,160,749	98.4
Total	**100.0 %**	**$2,196,965**	**100.0 %**

Note: Certified DBE utilization.

Numbers rounded to nearest tenth of 1 percent. Numbers may not add to totals due to rounding.
Number of contracts/subcontracts analyzed for 2007-June 2012 is 1,896.

See Figure K-2 in Appendix K for more detail.

Source: Keen Independent from data on NDOT LPA Program contracts 2007-June 2012, and BBC Research & Consulting, Availability and Disparity Study, 2007.

C. MBE/WBE Utilization on Contracts with and without DBE Contract Goals

Beginning in 2010, NDOT set DBE contract goals on some FHWA-funded construction contracts. In the following analysis, any such contracts are combined into "goals contracts" (whether or not prime contractors met the DBE contract goals).[6]

Contracts without application of DBE contract goals include:

- All state-funded contracts;
- Any NDOT FHWA-funded contracts before 2010;
- Most engineering-related contracts regardless of funding source or time period; and
- Most smaller contracts and District contracts regardless of type, timing or funding source.

"Non-goals" contracts combine the utilization results for these contracts.

Figure 6-4 compares MBE/WBE and certified DBE utilization on goals and non-goals contracts during the study period (including both NDOT and LPA Program contracts). As shown, overall MBE/WBE utilization was higher on goals contracts (7.7%) than goals contracts (4.8%). The difference in overall MBE/WBE utilization was due to higher participation of firms certified as DBEs.

Figure 6-4.
MBE/WBE and DBE utilization on NDOT and LPA goals and non-goals transportation contracts, 2007-June 2012

Note:

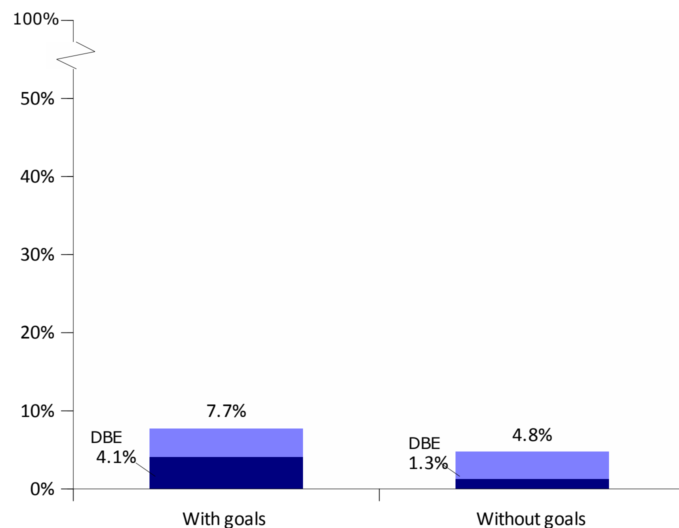
Certified DBE utilization.

Number of contracts/subcontracts analyzed is 306 for goals contracts and 1,590 for non-goals contracts.

See Figures K-3 and K-4 in Appendix K for detailed results.

Source:

Keen Independent from data on NDOT and LPA Program contracts.



For goals contracts, utilization was highest for white women-owned firms (5.5%). Other participation included Hispanic American-owned firms (1.5%), African American-owned businesses (0.5%), and Native American-owned companies (0.2%). Figure K-3 in Appendix K provides detailed results.

[6] FHWA directed NDOT to resume setting DBE contract goals on applicable FHWA-funded contracts in 2010. Some local agencies appear to have set DBE contract goals on FHWA-funded contracts in earlier years as well.

D. Changes in MBE/WBE and DBE Utilization during the Study Period

The study team separately examined MBE/WBE utilization for contracts awarded for the first three years of the study period (2007 through 2009) and the second half of the study period (2010 through June 2012). Although overall utilization of MBE/WBEs showed little change, utilization of WBEs increased while utilization of Hispanic American-owned firms decreased. Analysis of changes in DBE participation may show one factor behind this shift — utilization of white women-owned DBEs increased substantially between the two time periods (perhaps with the reintroduction of DBE contract goals) and utilization of Hispanic American-owned DBEs decreased.

Figure 6-5.
MBE/WBE and DBE share of prime contract and subcontract dollars for NDOT and LPA Program contracts, 2007-2009 and 2010-June 2012

	2007-2009 Percent	2010-June 2012 Percent
MBE/WBEs		
African American-owned	0.0 %	0.2 %
Asian-Pacific American-owned	0.0	0.0
Subcontinent Asian American-owned	0.0	0.0
Hispanic American-owned	2.8	1.4
Native American-owned	0.0	0.1
WBE (white women-owned)	2.2	3.9
Total MBE/WBE	**5.0 %**	**5.5 %**
Majority-owned	95.0	94.5
Total	**100.0 %**	**100.0 %**
DBEs		
African American-owned	0.0 %	0.2 %
Asian-Pacific American-owned	0.0	0.0
Subcontinent Asian American-owned	0.0	0.0
Hispanic American-owned	1.3	0.4
Native American-owned	0.0	0.1
WBE (white women-owned)	0.3	1.0
Total DBE	**1.6 %**	**1.7 %**
Non-DBE	98.4	98.3
Total	**100.0 %**	**100.0 %**

Note: Certified DBE utilization.

Numbers rounded to nearest tenth of 1 percent. Numbers may not add to totals due to rounding.
Number of contracts/subcontracts analyzed for is 829 for 2007-2009 and 1,067 for 2010-June 2012.

See Figures K-5 and K-6 in Appendix K for more detail.

Source: Keen Independent from data on NDOT LPA Program contracts 2007-June 2012.

E. MBE/WBE Utilization on Construction and Engineering-related Contracts

Keen Independent compared MBE/WBE participation on NDOT and LPA Program construction contracts (including design-build contracts) and engineering-related contracts.

Keen Independent identified very little MBE/WBE participation on engineering-related contracts. As shown in Figure 6-6, minority- and women-owned firms appeared to receive less than 1 percent of engineering contract dollars. NDOT did not set DBE contract goals on FHWA-funded engineering contracts during this time period. Utilization of certified DBEs was 0.2 percent on engineering-related contracts.

MBE/WBE utilization on construction contracts was 5.7 percent. This level of utilization is very close to MBE/WBE utilization for all NDOT and LPA Program contracts because more than 90 percent of the total contract dollars are for construction.

Figure 6-6.
MBE/WBE and DBE utilization on NDOT and LPA Program construction and engineering contracts, 2007-June 2012

Note:

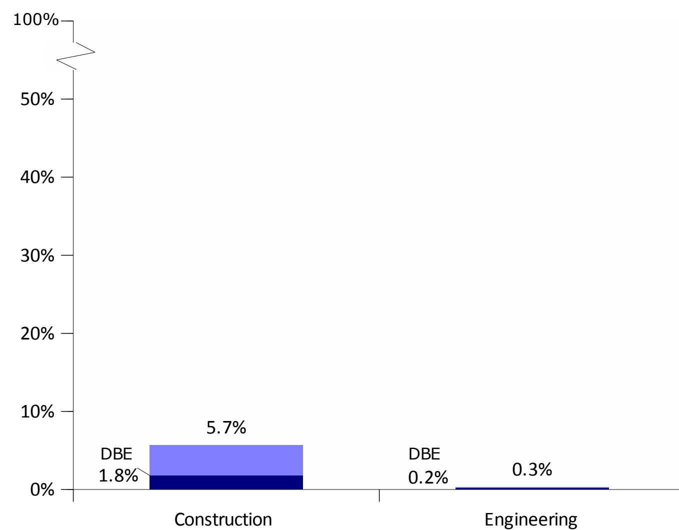
Certified DBE utilization.

Number of contracts/subcontracts analyzed is 1,576 for construction contracts and 320 for engineering-related contracts.

See Figures K-7 and K-8 in Appendix K for detailed results.

Source:

Keen Independent from data on NDOT and LPA Program contracts.



CHAPTER 7.
Disparity Analysis

The disparity analysis compares utilization of minority- and women-owned firms on transportation contracts that NDOT and local agencies awarded during the study period to what might be expected based on the availability of MBE/WBEs for that work. Chapter 7 presents the disparity analysis in five parts:

A. Overview of disparity analysis methodology;

B. Overall disparity analysis results for NDOT and LPA Program contracts;

C. Disparity analysis results for contracts with DBE contract goals and contracts without goals;

D. Disparity analysis results for construction and engineering contracts;

E. Disparity analysis results for 2007-2009 contracts and 2010 through June 2012 contracts; and

F. Statistical significance of disparity analysis results.

A. Overview of Disparity Analysis Methodology

As part of the disparity analysis, Keen Independent compared the actual utilization of MBE/WBEs on NDOT transportation prime contracts and subcontracts with the percentage of contract dollars that MBE/WBEs might be expected to receive based on their availability for that work. (Availability is also referred to as the "utilization benchmark.") Keen Independent made those comparisons for individual MBE/WBE groups.

Keen Independent expressed both utilization and availability as percentages of the total dollars associated with a particular set of contracts, making them directly comparable (e.g., 5% utilization compared with 4% availability). Keen Independent then calculated a "disparity index" to help compare utilization and availability results among MBE/WBE groups and across different sets of contracts. Figure 7-1, on the next page, describes how Keen Independent calculated disparity indices.

- A disparity index of 100 indicates an exact match between actual utilization and what might be expected based on MBE/WBE availability for a specific set of contracts (often referred to as "parity").

- A disparity index of less than 100 may indicate a disparity between utilization and availability, and disparities of less than 80 in this report are described as "substantial."[1]

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[1] Some courts deem a disparity index below 80 as being "substantial" and have accepted it as evidence of adverse impacts against MBE/WBEs. For example, see *Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation, et al.*, __ F. 3d __, 2013 WL 1607239 (9th Cir. April 16, 2013).; *Rothe Development Corp v. U.S. Dept of Defense*, 545 F.3d 1023, 1041; *Eng'g Contractors Ass'n of South Florida, Inc. v. Metropolitan Dade County*, 122 F.3d at 914, 923 (11th Circuit 1997); *Concrete Works of Colo., Inc. v. City and County of Denver*, 36 F.3d 1513, 1524 (10th Cir. 1994). Also see Appendix B for additional discussion.

The disparity analysis results Keen Independent presents in Chapter 7 are based on detailed disparity analysis tables provided in Appendix K. Each table in Appendix K reports disparity analysis results for a different set of NDOT and LPA Program transportation contracts.

For example, Figure K-2 in Appendix K reports disparity analysis results for *all* NDOT and LPA Program transportation contracts that the study team examined as part of the disparity study. Figure K-2 includes both FHWA- and state-funded contracts.

Appendix K includes tables for other sets of contracts as well, including tables that separate results for FHWA- and state-funded contracts, prime contracts and subcontracts, construction and engineering-related contracts, contracts in different regions, large and small contracts, and contracts in different time periods. The heading of each table in Appendix K describes the set of contracts that the study team analyzed for that table.

Figure 7-1.
Calculation of disparity indices

The disparity index provides a straightforward way of assessing how closely actual utilization of an MBE/WBE group matches what might be expected based on its availability for a specific set of contracts. With the disparity index, one can directly compare results for one group to that of another group, and across different sets of contracts. Disparity indices are calculated using the following formula:

$$\frac{\%\ \text{actual utilization} \times 100}{\%\ \text{availability}}$$

For example, if actual utilization of WBEs on a set of NDOT contracts was 2 percent and the availability of WBEs for those contracts was 4 percent, then the disparity index would be 2 percent divided by 4 percent, which would then be multiplied by 100 to equal 50. In this example, WBEs would have actually received 50 cents of every dollar that they might be expected to receive based on their availability for the work.

To introduce the disparity tables, the following page presents Figure K-2 from Appendix K (labeled as Figure 7-2 and identical to Figure K-2 in the appendix). A review of Figure 7-2 helps to explain the calculations and format for each of the disparity analysis tables in Appendix K.

As illustrated in Figure 7-2, the disparity analysis tables present information about each MBE/WBE group (as well as about all businesses) in separate rows:

- "All firms" in row (1) pertains to information about all majority-owned businesses and MBE/WBEs considered together;
- Row (2) provides results for all MBE/WBEs, regardless of whether they were certified as DBEs;
- Row (3) provides results for all WBEs, regardless of whether they were certified as DBEs;
- Row (4) provides results for all MBEs, regardless of whether they were certified as DBEs; and
- Rows (5) through (10) provide results for businesses of each individual minority group, regardless of whether they were certified as DBEs.

The bottom half of Figure 7-2 reports analogous results for businesses certified as DBEs. The study team included a row for white male-owned DBEs, although the analysis did not identify any white male-owned DBEs utilized on NDOT transportation prime contracts or subcontracts during the study period.

Figure 7-2.
Example of a disparity analysis table from Appendix K (same as Figure K-2 in Appendix K)

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	1,896	$2,196,965	$2,196,965				
(2) MBE/WBE	291	$114,594	$114,594	5.2	7.4	-2.2	70.3
(3) WBE	217	$63,492	$63,492	2.9	1.2	1.7	200+
(4) MBE	74	$51,101	$51,101	2.3	6.2	-3.9	37.3
(5) African American-owned	6	$1,663	$1,665	0.1	0.3	-0.2	25.9
(6) Asian-Pacific American-owned	2	$44	$44	0.0	0.0	0.0	6.8
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.7	-0.7	0.0
(8) Hispanic American-owned	60	$48,695	$48,748	2.2	2.4	-0.1	93.7
(9) Native American-owned	5	$643	$644	0.0	2.8	-2.8	1.0
(10) Unknown MBE	1	$56					
(11) DBE-certified	103	$36,216	$36,216	1.6			
(12) Woman-owned DBE	63	$12,707	$12,707	0.6			
(13) Minority-owned DBE	40	$23,509	$23,509	1.1			
(14) African American-owned DBE	6	$1,663	$1,663	0.1			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	31	$21,229	$21,229	1.0			
(18) Native American-owned DBE	3	$617	$617	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Notes: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 11 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Utilization. Each of the disparity tables in Appendix K includes the same columns and rows:

- Column (a) presents the number of prime contracts and subcontracts (i.e., contract elements) that the study team analyzed for that particular set of contracts. As shown in row (1) of column (a) of Figure 7-2, the study team included 1,896 total contract elements in the disparity analysis. The value presented in column (a) for each individual MBE/WBE group represents the number of contract elements on which businesses of that particular MBE/WBE group were utilized (e.g., as shown in row (5) of column (a), African American-owned businesses received 6 contract elements).
- Column (b) presents the dollars (in thousands) that were associated with the set of contract elements. As shown in row (1) of column (b) of Figure 7-2, the study team examined about $2.2 billion for the set of contract elements. The dollar totals include both prime contract and subcontract dollars.
- Column (c) presents the contract dollars (in thousands) for which each MBE/WBE group was utilized on the set of contracts after adjusting for dollars that went to businesses that the study team identified as MBEs but for which specific race/ethnicity information was not available. As shown in row (10) of column (b) of Figure 7-2, across all transportation contracts that NDOT awarded during the study period, there was approximately $56,000 that went to a business that the study team identified as MBE for which no specific race/ethnicity information was provided.
- Column (d) presents the percentage of total dollars associated with the set of contract elements for which each MBE/WBE group was utilized. The study team calculated each percentage in column (d) by dividing the dollars going to a particular group in column (c) by the total dollars associated with the set of contract elements shown in row (1) of column (c), and then expressing the result as a percentage. For African American-owned businesses, for example, the study team divided $1,665,000 million by $2.2 billion and multiplied by 100 for a result of 0.1 percent, as shown in row (5) of column (d).

Availability (utilization benchmark). Column (e) of Figure 7-2 reports the availability of each MBE/WBE group for all transportation prime contracts and subcontracts that NDOT or local agencies awarded during the study period. Availability estimates, which are represented as a percentage of the total contracting dollars associated with the set of contracts, serve as a benchmark against which to compare utilization for a specific group for a particular set of contracts. As shown in row (5) of column (e), for example, availability of African American-owned businesses is 0.3 percent, compared with 0.1 percent utilization for those businesses. In the disparity tables, Keen Independent did not separately calculate availability figures for businesses that were DBE-certified.

Differences between utilization and availability. The next step in analyzing whether there was a disparity between the utilization and availability of a particular MBE/WBE group is to subtract the utilization result from the availability result. Column (f) of Figure 6-2 presents the percentage point difference between utilization and availability for each MBE/WBE group. For example, as reported in row (2) of column (f) of Figure 7-2, MBE/WBE utilization was 2.2 percentage points below MBE/WBE availability. Utilization of African American-owned firms was 0.2 percentage points less than what might be expected for African American-owned firms from the availability analysis.

Disparity indices. It is sometimes difficult to interpret absolute percentage differences between utilization and availability, especially when the percentages are relatively small. Therefore, the study team also calculated a disparity index for each MBE/WBE group, which measured utilization relative to availability and served as a metric to compare any disparities across different MBE/WBE groups and across different sets of contracts. Keen Independent calculated disparity indices by dividing percent utilization for each group by percent availability and multiplying the result by 100. Thus, smaller values for the disparity indices indicated greater disparities (i.e., a greater degree of underutilization).

Column (g) of Figure 7-2 presents the disparity index for each MBE/WBE group. As reported in row (2) of column (g), the disparity index for all MBE/WBEs considered together was about 70, indicating that MBE/WBEs actually received approximately 70 cents of every dollar that they might be expected to receive based on their availability for all transportation prime contracts and subcontracts that NDOT and local agencies awarded during the study period. (The study team did not calculate disparity indices separately for businesses that were DBE-certified.)

Results when disparity indices were very large or when availability was zero. Keen Independent applied the following rules when disparity indices were exceedingly large or could not be calculated because the availability database contained no businesses of a particular group identified as available for a particular set of contract elements:

- When the study team's calculations showed a disparity index exceeding 200, Keen Independent reported an index of "200+." A disparity index of 200+ means that utilization was more than twice as much as might be expected based on the availability analysis.
- When there was no utilization and 0 percent availability for a particular group for a particular set of contracts, Keen Independent reported "parity" between utilization and availability (indicated by a disparity index of "100").
- When utilization for a particular group for a particular set of contracts was greater than 0 percent but availability was 0 percent, Keen Independent reported a disparity index of "200+."[2]

[2] A particular MBE/WBE group could show a utilization percentage greater than 0 percent but an availability percentage of 0 percent for many reasons, including the fact that one or more utilized businesses were out of business by the time of Keen Independent's availability survey.

B. Overall Disparity Analysis Results for NDOT and LPA Program Contracts

Keen Independent used the disparity results from Figure 7-2 to examine whether there were any disparities between MBE/WBE utilization and availability on NDOT and LPA Program contracts awarded during the study period. Figure 7-3 presents disparity indices for all MBE/WBEs considered together as well as for each group.

- The line down the center of the graph shows a disparity index level of 100, which indicates "parity" between utilization and availability for a particular group. Disparity indices less than100 indicate disparities between utilization and availability.

- For reference, a line is also drawn at an index level of 80, because some courts use 80 as a threshold for what indicates a substantial disparity.

As shown in Figure 7-3, utilization of MBE/WBEs on NDOT and LPA Program transportation contracts during the study period was substantially below what might be expected based on the availability analysis for those contracts. The disparity index of 70 indicates that all MBE/WBEs considered together received about 70 percent of the contract dollars those firms might be expected to receive based on their availability for those contracts.

Figure 7-3 shows substantial disparities for African American-, Asian-Pacific American-, Subcontinent Asian American- and Native American-owned firms. However, utilization of white women-owned firms (2.9%) was more than twice as much as might be expected based on the availability of WBEs for that work. The disparity index for WBEs exceeded 200. A disparity index of 94 was identified for Hispanic American-owned firms for the 2007 through June 2012 time period. Utilization of Hispanic American-owned firms (2.2%) was less than what might be expected based upon the availability analysis for those firms (2.4%), but the disparity was not substantial. (However, further analysis of results for Hispanic American-owned firms does identify substantial disparities.)

Figure 7-3.
Disparity indices for FHWA- and state-funded NDOT and LPA Program contracts, 2007-June 2012

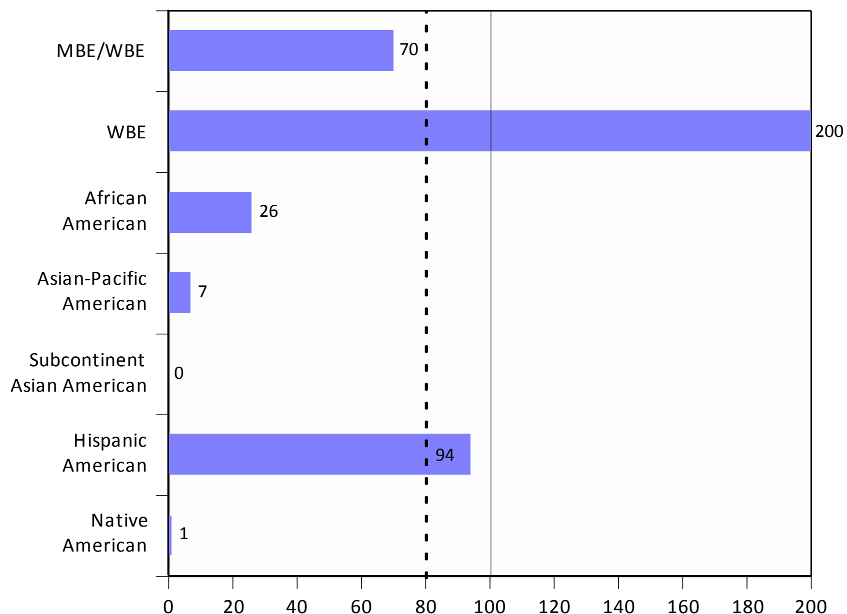
Note:

Number of contracts/subcontracts analyzed is 1,896.

See Figure K-2 for detailed results.

Source:

Keen Independent disparity analysis.



C. Disparity Analysis Results for Contracts with DBE Contract Goals and Contracts without Goals

NDOT and local agencies set DBE contract goals on some of the FHWA-funded contracts awarded during the study period. Keen Independent examined whether there were disparities between MBE/WBE utilization and availability when NDOT and local agencies applied the DBE contract goals program and those for which the program did not apply.

Figure 7-4 presents disparity indices on DBE contract goals program contracts for study period. As shown, the DBE contract goals program narrowed the disparity between MBE/WBE utilization and availability, but a substantial disparity remained (disparity index of 79). As with the results for all contracts, there were substantial disparities for Asian-Pacific American-, Subcontinent Asian American- and Native American-owned firms. Unlike the overall results, there were substantial disparities for Hispanic American-owned firms. Utilization of Hispanic American-owned firms on goals contracts (1.5%) was less than utilization on non-goals contracts (2.4%). Utilization of WBEs was more than twice what might have been expected based on WBE availability.

Figure 7-4.
Disparity indices for FHWA- and state-funded NDOT and LPA Program contracts, 2007-June 2012

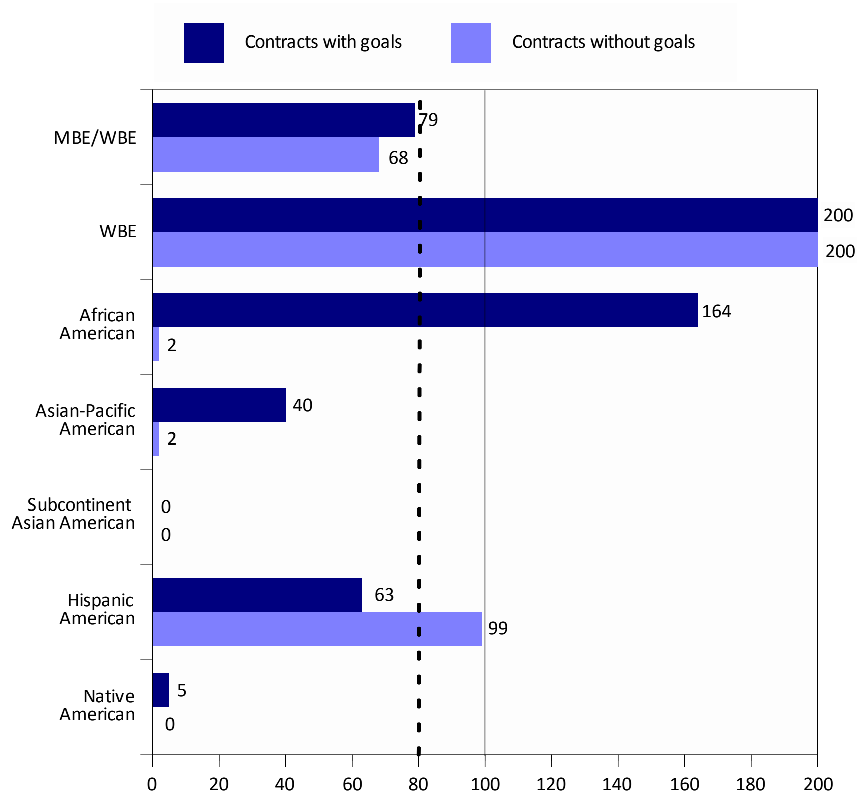
Note:

Number of contracts/subcontracts analyzed is 306 for goals contracts and 1,590 for non-goals contracts.

See Figure K-3 and K-4 for detailed results.

Source:

Keen Independent disparity analysis.



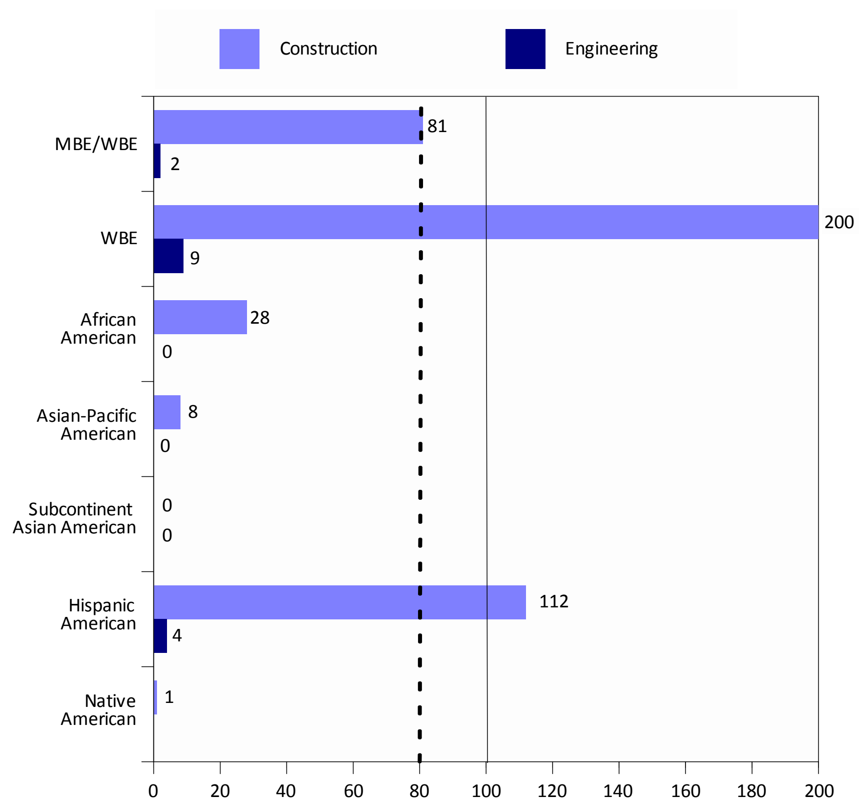
The lighter bars of Figure 7-4 show disparity indices for contracts for which no DBE contract goals program applied. These include all state-funded contracts, most engineering contracts and many FHWA-funded construction contracts, especially those prior to 2010. Results indicate substantial disparities for African American-, Asian-Pacific American-, Subcontinent Asian American- and Native American-owned businesses. There were no disparities for Hispanic American-owned firms and utilization of WBEs exceeded availability.

D. Disparity Analysis Results for Construction and Engineering Contracts

As discussed in Chapter 6, minority- and women-owned firms received less than 1 percent of NDOT and LPA Program engineering-related contract dollars during the study period. This level of utilization was substantially below what might be expected based on the availability of MBE/WBEs for those prime contracts and subcontracts. Overall, the disparity index for MBE/WBEs for engineering contracts was 2. There were substantial disparities for each MBE/WBE group, including white women-owned firms (disparity index of 9).

The lighter bars of Figure 7-5 show disparity indices for NDOT and LPA Program construction contracts. Results for construction contracts are similar to overall results — utilization of WBEs exceeding availability, utilization of Hispanic American-owned firms close to the availability benchmark for those firms, and substantial disparities for all other MBE groups.

Figure 7-5.
Disparity indices for NDOT and LPA Program construction contracts and engineering contracts, 2007-June 2012



Note:

Number of contracts/subcontracts analyzed is 1,576 for construction contracts and 320 for engineering-related contracts.

See Figures K-7 and K-8 for corresponding disparity results tables.

Source:

Keen Independent disparity analysis.

E. Disparity Analysis Results for 2007-2009 and 2010 through June 2012

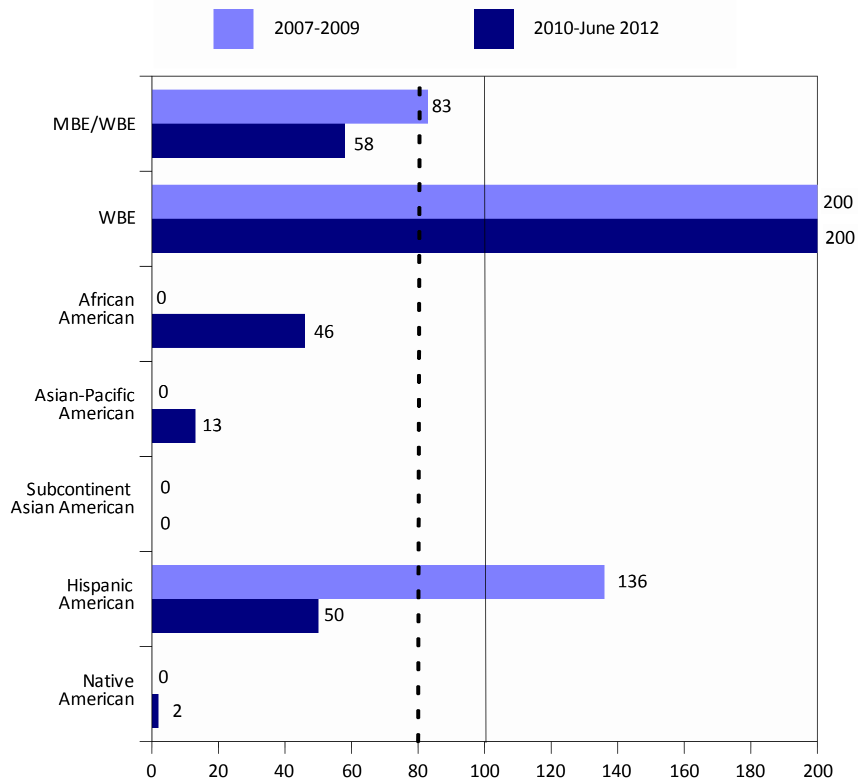
The utilization analysis presented in Chapter 6 showed that Hispanic American-owned firms' share of NDOT contract dollars decreased by one-half between the first part of the study period (2007-2009) and the second part of the study period (2010-June 2012). Utilization of white women-owned firms substantially increased between these two time periods, in part due to reintroduction of DBE contract goals.

Figure 7-6 compares disparity indices for 2007-2009 contracts and 2010-June 2012 contracts. Results for the two time periods are similar for each DBE group except for Hispanic American-owned firms.

- Utilization of Hispanic American-owned businesses on NDOT and LPA Program contracts exceeded availability for 2007-2009; and
- There was a substantial disparity between utilization and availability for Hispanic American-owned firms for contracts awarded in 2010 through June 2012, even with application of the DBE contract goals program for some contracts.

For both time periods, utilization of WBEs was considerably higher than what might be expected based upon the availability analysis.

Figure 7-6.
Disparity indices for NDOT and LPA Program contracts, 2007-2009 and 2010-June 2012



Note:

Number of contracts/subcontracts analyzed is 829 for 2007-2009 contracts and 1,067 for 2010-June 2012 contracts.

See Figures K-5 and K-6 for corresponding disparity results tables.

Source:

Keen Independent disparity analysis.

E. Statistical Significance of Disparity Analysis Results

Testing for statistical significance relates to testing the degree to which a researcher can reject "random chance" as an explanation for any observed differences. Random chance in data sampling is the factor that researchers consider most in determining the statistical significance of results. However, the study team attempted to contact every firm in the relevant geographic market area identified as possibly doing business within relevant subindustries (as described in Chapter 5), mitigating many of the concerns associated with random chance in data sampling as they may relate to Keen Independent's availability analysis. The utilization analysis also approaches a "population" of contracts. Therefore, one might consider any disparity identified when comparing overall utilization with availability to be "statistically significant."

Figure 7-7 explains the high level of statistical confidence in the utilization and availability results. As outlined on the next page, the study team also used a sophisticated statistical simulation tool to further examine statistical significance of disparity results.

Figure 7-7.
Confidence intervals for availability and utilization measures

Keen Independent conducted telephone interviews with more than 3,900 business establishments — a number of completed interviews that is generally considered large enough to be treated as a "population," not a sample. However, if the results are treated as a sample, the reported 24.9 percent representation of MBE/WBEs among all available firms is accurate within about +/- 0.8 percentage points. By comparison, many survey results for proportions reported in the popular press are accurate within +/- 5 percentage points. (Keen Independent applied a 95 percent confidence level and the finite population correction factor when determining this confidence interval.)

At this level of accuracy in the availability analysis, a disparity index of 97 might technically be "statistically significant."

Keen Independent attempted to collect data for all relevant NDOT and LPA Program transportation-related construction and engineering contracts during the study period. Not all local agencies with LPA Program contracts provided information, but Keen Independent was able to examine contracts for all but one agency. Keen Independent attempted to examine all contract information that NDOT had collected concerning its own transportation construction and engineering contracts.

Monte Carlo analysis. There were many opportunities in the sets of prime contracts and subcontracts for MBE/WBEs to be awarded work. Some contract elements involved large dollar amounts and others involved only a few thousand dollars.

Monte Carlo analysis was a useful tool for the study team to use for statistical significance testing in the disparity study, because there were many individual chances at winning NDOT and local agency transportation prime contracts and subcontracts during the study period, each with a different payoff. Figure 7-8 describes Keen Independent's use of Monte Carlo analysis.

Figure 7-8.
Monte Carlo analysis

The study team began the Monte Carlo analysis by examining individual contract elements. For each contract element, Keen Independent's availability database provided information on individual businesses that were available for that contract element, based on type of work, contractor role, contract size and location of the work.

The study team assumed that each available firm had an equal chance of "receiving" that contract element. For example, the odds of a WBE receiving that contract element were equal to the number of WBEs available for the contract element divided by the total number of firms available for the work. The Monte Carlo simulation then randomly chose a business from the pool of available businesses to "receive" that contract element.

The Monte Carlo simulation repeated the above process for all other elements in a particular set of contracts. The output of a single Monte Carlo simulation for all contract elements in the set represented simulated utilization of MBE/WBEs, by group, for that set of contract elements.

The entire Monte Carlo simulation was then repeated 1 million times for each set of contracts. The combined output from all 1 million simulations represented a probability distribution of the overall utilization of MBE/WBEs if contracts were awarded randomly based on the availability of businesses working in the Nevada transportation contracting industry.

The output of the Monte Carlo simulations represents the number of runs out of 1 million that produced a simulated utilization result that was equal or below the observed utilization in the actual data for each MBE/WBE group and for each set of contracts. If that number was less than or equal to 25,000 (i.e., 2.5% of the total number of runs), then the disparity index is considered to be statistically significant.

Results. Figure 7-9 presents the results from the Monte Carlo analysis as they relate to the statistical significance of disparity analysis results for MBEs and WBEs.

Keen Independent identified a substantial disparity between MBE utilization and availability across NDOT and LPA Program contracts for the 2007 through June 2012 study period. Therefore, the Monte Carlo simulation focused on these results. As shown in Figure 7-9, the Monte Carlo simulations replicated the disparities for MBEs in just 63 out of the 1 million simulation runs, or less than one-tenth of 1 percent of the runs. Therefore, one can be confident that chance in contract and subcontract award can be rejected as an explanation for the observed disparity for minority-owned businesses in NDOT and LPA Program contracts.

As there was no disparity, overall, for WBEs, the study team did not perform the Monte Carlo simulations for that group.

Figure 7-9.
Monte Carlo results for all NDOT and LPA Program contracts 2007-June 2012

Source:

Keen Independent study team from data on NDOT and LPA Program contracts, 2007-June 2012.

	MBE	WBE
Disparity index	37	200+
Number of simulation runs out of 1 million that replicated observed utilization	63	N/A
Probablity of observed disparity occurring due to "chance"	<0.1 %	N/A
Reject chance in awards of contracts as a cause of disparity?	Yes	N/A

It is important to note that this test may not be necessary to establish statistical significance of results (see discussion in Figure 7-7 and elsewhere in this Chapter), and it may not be appropriate for very small populations of firms.[3]

[3] Even if there were zero utilization of a particular group, Monte Carlo simulation might not reject chance in contract awards as an explanation for that result if there were a small number of firms in that group or a small number of contract elements included in the analysis. Results can also be affected by the size distribution of contract elements.

CHAPTER 8.
Further Exploration of Any Disparities

Six areas of questions emerge from the disparities observed for MBE/WBEs on NDOT and LPA Program contracts:

A. Are disparities found in some regions of the state and not in others?
B. Are there disparities for NDOT and LPA Program contracts?
C. Are there disparities for FHWA-funded and state-funded contracts?
D. Does analysis of utilization as prime contractors and subcontractors on construction contracts help to explain the disparities on those contracts?
E. Does analysis of utilization as prime consultants and subconsultants on engineering-related contracts help to explain the disparities on those contracts?
F. Is there any evidence of "overconcentration" of DBEs in certain types of work?

Answers to the above questions may be relevant as NDOT considers how much of its overall annual DBE goal can be met through race- and gender-neutral means and what measures may be needed in implementing the federal regulations. In accordance with the Federal DBE Program, results may also help NDOT, if necessary, identify the specific racial/ethnic/gender groups that might be included in any future race- or gender-conscious programs.

A. Are disparities found in some regions of the state and not in others?

The study team examined utilization and disparity analysis results individually for regions of Nevada corresponding to NDOT districts:

- District 1 (Southern Nevada, including the Las Vegas area);
- District 2 (Northwestern Nevada, including the Reno area); and
- District 3 (Northeastern Nevada, including Elko and Ely).

Results for each district include: (a) District-awarded NDOT contracts for that district; (b) LPA Program contracts awarded by local agencies located in that district; and (c) contracts for other NDOT projects located in that district even if it was not a District-awarded contract. Keen Independent was able to identify location for nearly all construction contracts and many engineering contracts. Where projects spanned district boundaries, results are reported for more than one district. When the contract was not location-specific, it is not reported in the district results.[1]

[1] This includes some contracts that did not contain sufficient information to identify location of the work.

Overall results of the disparity analysis were similar in each district:

- Utilization exceeding availability for white women-owned firms; and
- Substantial disparities for MBEs.

Figures K-19, K-20, and K-21 in Appendix K provide utilization and disparity results by each region.

B. Are there disparities for NDOT and LPA program contracts?

Some of the FHWA- and state-funded contracts Keen Independent examined were awarded by cities, counties, regional transportation commissions and other local agencies using funds administered through NDOT. These LPA Program contracts were $139 million of the $2.2 billion in total contracts examined in the disparity study.

Keen Independent examined utilization and availability results for LPA Program contracts compared with contracts awarded by NDOT.

As shown in Figure 8-1, utilization of MBE/WBEs was considerably lower for LPA Program contracts (2.4%) than for NDOT contracts (5.4%).

Figure 8-1.
MBE/WBE and DBE share of FHWA-and state-funded prime contract and subcontract dollars on NDOT and LPA Program contracts,
2007–June 2012

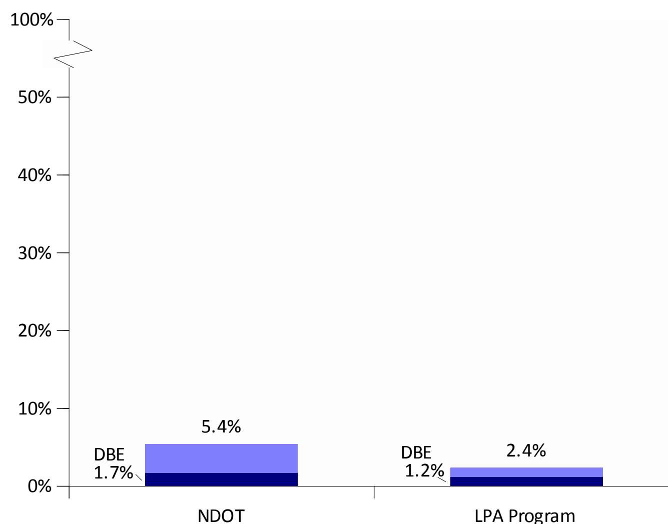
Note:

Number of contracts/subcontracts analyzed is 1,721 for NDOT and 175 for LPA Program.

For more detail and results by group see Figures K-28 and K-43 in Appendix K.

Source:

Keen Independent from NDOT contract data.



The level of MBE/WBE participation that might be expected based on the availability analysis was somewhat higher for LPA Program contracts (8.7%) than for the typically larger NDOT contracts (7.3%). Therefore, the overall disparity between MBE/WBE utilization and availability was greater for LPA Program contracts (disparity index of 27) than NDOT contracts (disparity index of 74).

For both NDOT and LPA Program contracts, there were substantial disparities for MBEs but not for WBEs.

Figures K-28 and K-43 in Appendix K provide detailed utilization and disparity results for NDOT-awarded contracts and local agency-awarded LPA Program contracts.

C. Are there disparities for FHWA-funded and state-funded contracts?

Keen Independent examined disparity analysis results for FHWA-funded contracts and state-funded contracts during the 2007 through June 2012 study period. (State-funded contracts contained no FHWA funds.)

As shown in Figure 8-2, MBE/WBEs obtained a larger share of FHWA-funded contract dollars than state-funded contracts. The higher participation was in part due to DBE contract goals for some of the FHWA-funded contracts.

Figure 8-2.
MBE/WBE and DBE share of prime contract/subcontract dollars for NDOT and LPA Program FHWA- and state-funded contracts, 2007-June 2012

Note:

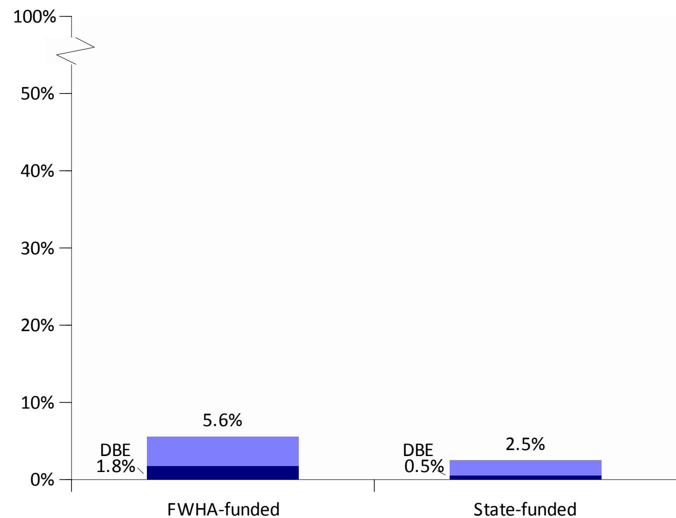
Certified DBE utilization.

Number of contracts/subcontracts analyzed is 1,356 for FHWA-funded contracts and 540 for state-funded contracts.

For more detail and results by group, see Figure K-22 and K-25 in Appendix K.

Source:

Keen Independent from data on NDOT and LPA Program contracts 2007-June 2012.



Prime contracts and subcontracts on state-funded contracts tended to be smaller than FHWA-funded contracts, so MBE/WBE availability was higher (9.9%). However, MBE/WBE utilization was only 2.5 percent. There was a substantial disparity for MBEs and no disparity for WBEs on state-funded contracts.

Most of the dollars examined were for FHWA-funded projects, so results were similar to overall results discussed in Chapter 7. MBE/WBE utilization (5.6%) was less than availability for those contracts (7.1%). There was a substantial disparity for MBEs and no disparity for WBEs on FHWA-funded contracts.

Figures K-22 and K-25 present detailed results.

D. Does analysis of utilization as prime contractors and subcontractors on construction contracts help to explain the disparities on those contracts?

Keen Independent explored utilization and disparity results for prime contracts and subcontracts on construction contracts. We examined the following questions:

1. Do results differ for construction prime contracts and subcontracts?

2. Are there disparities in the use of MBE/WBE prime contractors for small contracts?

3. Are there barriers to bidding on construction prime contracts for MBE/WBEs and other small businesses?

1. Do results differ for prime contracts and subcontracts? As Chapter 6 discussed for construction and engineering contracts combined, there is very low participation of MBE/WBEs on NDOT and LPA Program prime contracts. Utilization as subcontractors is substantially higher.

Below, Keen Independent separately examines results for construction contracts (and for engineering-related contracts later in Chapter 8).

Utilization. MBE/WBEs received less than 1 percent of construction prime contract dollars during the study period.[2] As shown in Figure 8-3, MBE/WBEs received 23 percent of subcontract dollars on construction contracts.

Figure 8-3.
MBE/WBE and DBE share of FHWA- and state-funded prime contract and subcontract dollars on NDOT construction projects, 2007–June 2012

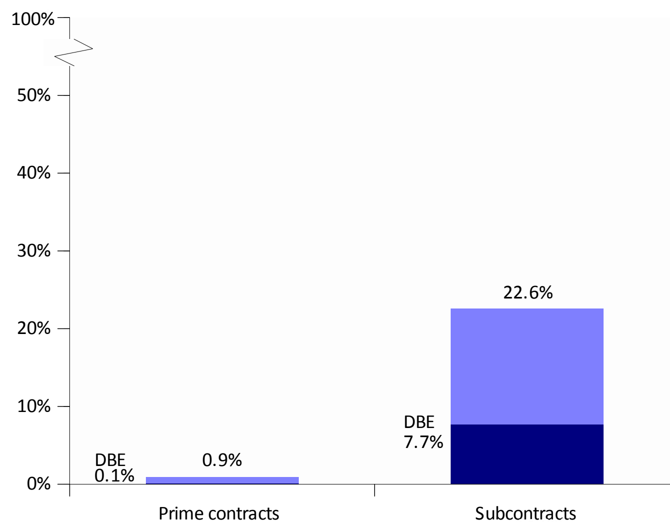
Note:

Number of contracts/subcontracts analyzed is 344 for prime contracts and 1,232 for subcontracts.

For more detail and results by group see Figures K-13 and K-14 in Appendix K.

Source:

Keen Independent from NDOT contract data.



[2] As used in this study, "prime contract dollars" for a contract is the total contract value less the value of subcontracts and supplies identified for the contract.

Disparity analysis. Figure 8-4 shows disparity indices for construction prime contracts (darker bars) and subcontracts (lighter bars) for MBE/WBEs overall and separately for WBEs and MBEs.

For construction prime contracts:

- There were large disparities for MBE/WBEs overall (disparity index of 18).
- There was also a substantial disparity when just examining MBEs.
- However, utilization of WBEs as prime contractors exceeded what might be expected from the availability analysis. Of the 29 construction prime contracts going to MBE/WBEs, 21 went to white women-owned firms. The $10 million in prime contractor utilization for WBE construction firms, or 0.7 percent of prime contract dollars, exceeded the benchmark for WBE participation identified in the availability analysis.
- For both MBEs and WBEs, the average size of the prime contract was considerably lower than the average size for all firms ($470,000 mean prime contract value for MBE/WBEs compared with $4.5 million overall).

Figure 8-4 also presents disparity indices for construction subcontracts. Utilization of WBEs as subcontractors exceeded availability, and MBE utilization was close to what might be expected from the availability analysis (disparity index of 104).

Utilization of MBE/WBE subcontractors was affected by DBE contract goals for some of these construction contracts. However, between MBEs and WBEs, almost all of the effect of DBE contract goals appeared to be higher utilization of white women-owned firms. Utilization of MBEs as subcontractors on goals contracts was about the same as for non-goals contracts (11% and 10% of subcontract dollars, respectively). Figures K-15 and K-16 present these results in the Appendix K.

Figure 8-4.
Disparity indices for MBE/WBE utilization as prime contractors and subcontractors on NDOT and LPA Program construction contracts, 2007-June 2012

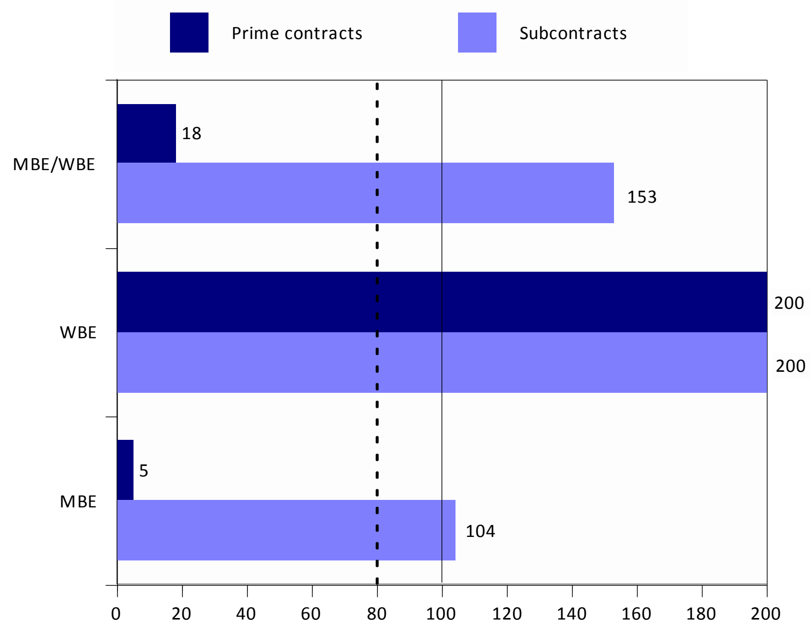
Note:

Number of contracts/subcontracts analyzed is 344 for prime contracts and 1,232 for subcontracts.

For more detail and results by group see Figures K-13 and K-14 in Appendix K.

Source:

Keen Independent disparity analysis.



Bidders on prime contracts. NDOT construction contracts are usually awarded to the firm submitting the lowest bid. Keen Independent analyzed bids on 148 competitively bid NDOT construction contracts during the study period.

- There were 736 price bids submitted for those contracts. MBEs submitted 12 bids and WBEs submitted 17 bids (each comprising about 2% of total bids or 4% total for MBE/WBEs).
- MBEs won prime contracts in proportion to their bids. WBE bidders were more likely than other firms to submit a winning bid.

It appears that MBE/WBE bidders were as or more successful in winning contracts than majority-owned firms, but that there may be limited opportunities for MBE/WBEs to submit bids. Possible barriers to submitting bids on NDOT construction contracts are examined later in this section.

2. Are there disparities in the use of MBE/WBE prime contractors for small construction contracts? From the interviews with construction contractors and other individuals in Nevada, the size of NDOT construction contracts is a barrier for MBE/WBEs and other small businesses when pursuing prime contracts (see Appendix J). To explore this issue, Keen Independent examined MBE/WBE utilization and availability as prime contractors for NDOT construction contracts above and below $250,000. This is the dollar limit for construction contracts that NDOT is not able to award through a new informal contracting process.

Utilization. As shown in Figure 8-5, MBE/WBEs received 25 percent of NDOT's small construction prime contracts and just 1 percent of prime contract dollars for construction contracts exceeding $250,000.

Figure 8-5.
MBE/WBE and DBE share of prime contract dollars for NDOT construction contracts below and above $250,000, 2007–June 2012

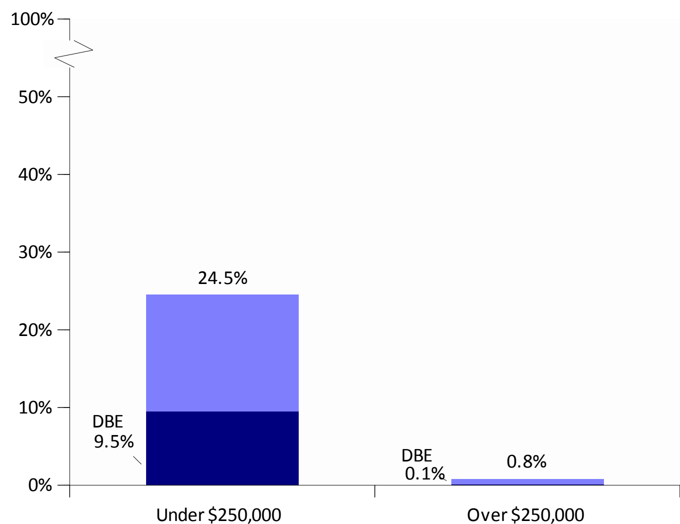
Note:

Number of contracts/subcontracts analyzed is 80 for small prime contracts and 282 for large prime contracts.

For more detail and results by group see Figures K-38 and K-41 in Appendix K.

Source:

Keen Independent from NDOT contract data.



Disparity analysis. MBE/WBE utilization as prime contractors on NDOT construction contracts up to $250,000 exceeded what might be expected from the availability analysis for those contracts. WBE utilization was considerably higher than WBE availability, while MBE utilization was below availability (disparity index of 66).

There was a very large disparity in MBE utilization for NDOT construction prime contracts above $250,000. As shown, the disparity index for MBE contractors for prime contracts above $250,000 was 4. There was not a disparity for WBEs for large prime contracts, however. Figure 8-6 shows these results.

Figure 8-6.
MBE/WBE and DBE share of prime contract dollars for NDOT construction contracts below and above $250,000, 2007–June 2012

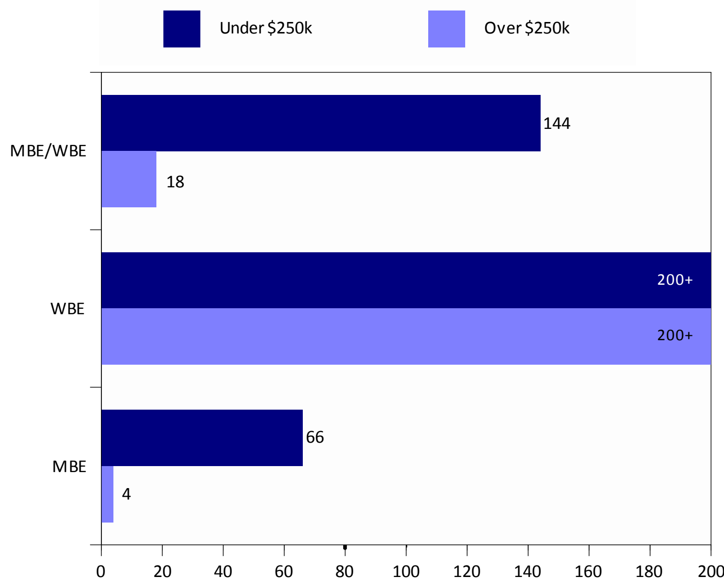
Note:

Number of contracts/subcontracts analyzed is 80 for small prime contracts and 282 for large prime contracts.

For more detail and results by group see Figures K-38 and K-41 in Appendix K.

Source:

Keen Independent disparity analysis.



Informal bidding program. Fifty-two of the 80 small contracts examined in Figures 8-5 and 8-6 were awarded through NDOT's informal bid method. WBEs received 13 and MBEs received nine of these 52 small contracts. Overall utilization of MBE/WBEs as prime contractors on these contracts was 25 percent. Utilization of WBEs exceeded availability and utilization of MBEs was less than availability, but not by a substantial amount (disparity index of 89). Figure K-39 in Appendix K provides these results.

In sum, the informal bid program appears to be effective in increasing the utilization of MBEs and WBEs as prime contractors on NDOT construction contracts.

3. Are there barriers to bidding on construction prime contracts for MBE/WBEs and other small businesses? Keen Independent reviewed requirements to bid on NDOT construction contracts to assess potential barriers for MBE/WBEs and other small businesses.

Licensing. To bid as a prime contractor or subcontractor on an NDOT or local agency construction contract, or most other construction contracts in Nevada, a firm must first be properly licensed by the Nevada State Contractors' Board. The Board is authorized under Nevada Revised Statutes (NRS) 624.040. The seven-member Board, appointed by the Governor, is comprised of six construction

contractors who have been citizens of Nevada for at least five years, and one member of the general public. The State of Nevada has given the Board broad powers to license firms by examining their:

- Qualifications to perform specific types of work;[3] and
- Financial responsibility.[4]

The Board exercises its powers to consider financial responsibility, in part, by setting bid limits for the company based on the Board's consideration of the balance sheet of the applying company, other factors about the company, and if it chooses, personal financial status and history of the applicant. Its authorizing legislation lists certain factors that may be considered, but the Board is given the ability to review non-listed factors as well.

The Board has the authority to discipline a contractor bidding outside the scope of its license or bidding on work in excess of the bid limit set by the Board.[5] Licenses must be renewed every two years. The Board collects a fee for an initial application and for license renewals.

Based on information from knowledgeable individuals interviewed as part of this study (see Appendix J), the state law governing licensing and the regulations adopted by the Contractors' Licensing Board can negatively affect MBE/WBEs and other small businesses.

a. To meet minimum qualifications the Board has established, an applicant must have risen to a certain professional level within the construction industry and have been employed at that level for a minimum number of years.

   While any licensing system in any state might reasonably consider the experience of an individual, information in Chapter 4 describes evidence that minorities and women working in the Nevada construction industry might not have the same access to certain trades and supervisory levels as non-minorities or men.

   In this regard, Nevada might be perpetuating effects of discrimination in employment in the same way as many other state licensing systems across the country. (Developing a system to consider qualifications and experience with no potential discriminatory impact might not be possible, however.)

b. The Board requires the contractor to file a surety bond or cash deposit in order to be issued a license.[6] It may be more difficult and costly for new or small contractors to obtain such a bond or provide a cash deposit.

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[3] NRS 624.220.
[4] NRS 624.262.
[5] NRS 624.3015.
[6] NRS 624.270.

c. For any bid amount over $10,000, the Board currently requires company financial statements prepared or reviewed by a CPA. Many small businesses do not have CPA-prepared financial statements. The cost of obtaining CPA-prepared financial statements can be a barrier to obtaining a bid limit above $10,000.

d. The fact that the Board has chosen to adopt a bid limit system at all may negatively affect the ability of small businesses including MBE/WBEs to successfully start businesses, access larger contracting opportunities and develop their firms.

   Many states have created licensing boards that consider qualifications before issuing licenses for certain types of construction work. It is less common for a licensing board to also set bid limits as part of the licensing process.

e. The methods the Board uses to establish bid limits may also negatively affect minority- and women-owned firms. The Board bases the bid limit, in part, on the size and financial strength of the company. As summarized in Chapter 4, there is evidence that MBE/WBEs tend to be small and that minority-owned firms tend to be undercapitalized.

   Further, to the extent there is any race or gender discrimination in the marketplace that affects the success of construction business, setting a bid limit based on past success can perpetuate the effects of that discrimination.

f. For sole proprietorships and general partnerships, the Board currently requires applicants to submit personal financial statements. Personal statements must include a supplemental schedule disclosing working capital and net worth. In addition, for a bid limit of $250,000, an "Indemnification Option" is available for applicants who may not otherwise qualify for the bid limit. In this case, the Board considers the financial strength of an individual or entity in addition to the applicant.

   As discussed in Chapter 4, there is evidence that minorities in Nevada have not had the same avenues to build personal net worth as non-minorities. Any consideration of personal net worth might perpetuate the effects of any past discrimination against minorities in the housing market, housing finance or other paths to building personal net worth.[7]

g. The authorizing legislation for the Board specifies a number of subjective factors that the Board can consider in its licensing process. For example, the "reputation" and "character" of an applicant can be evaluated. There is potential of abuse of such a system that could result in discrimination against a minority or female applicant.

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[7] In the United States in 2010, the median net worth of households headed by African Americans was $4,955 compared with $110,729 for non-Hispanic whites. There was a similar difference in net worth for Hispanic American households. Net worth of Asian American households was one-half of non-Hispanic white households. See United States Census Bureau. Net Worth and Asset Ownership of Households 2010. http://www.census.gov/people/wealth/

In sum, there is potential for the contractors licensing system in Nevada to have a negative impact on minority- and women-owned firms, especially surrounding bid limits. This potential barrier might affect prime contractors and subcontractors on NDOT construction contracts. The 2007 Study identified this potential issue as well.

NDOT contractor prequalification. State law (NRS 408.333) requires that NDOT prequalify firms seeking to bid as prime contractors on its advertised construction contracts and that NDOT consider experience and financial ability in this prequalification process. Firms must be prequalified at time of. Prequalification is valid for up to one year from the application date. Contractors are required to apply for prequalification each year.

NDOT's determination of the maximum contract amount a firm can bid is separate from the bid limit determined by the Contractors' Board. To bid on an NDOT construction contract of a certain size, a firm must have the appropriate bid limit from both agencies.

NDOT's bid limit formula is composed of financial factors and rating factors. Financial factor evaluation requires obtaining a liquid asset value by subtracting current liabilities from current assets (to which unsecured loans or letters of credit accommodations are added), thus arriving at a net asset amount.

Rating factors are then applied:

- Firms are awarded 1 point for each year of experience, with a maximum of 4 points;
- A half of a point is awarded per million dollars of highway work performed in or out of state within the past 5 years, for a maximum of 3 points; and
- Past performance is graded on a scale, and points range from -6 points to +3 points.

Once the bid limit is determined, the contractor may bid on NDOT contracts up to that limit. This limit is not used up; that is, a contractor may bid and win multiple large NDOT contracts as long as each contract is below the bid limit figure.

A number of contractors and trade association representatives were critical of NDOT's prequalification process. One interviewee said that very few companies can qualify as primes on highway work. He observed that even if the contracts are broken down, a lot of DBEs can't qualify as primes.

NRS 408.333 requires NDOT to establish and operate a prequalification method that considers experience and financial ability, but does not require a specific process or evaluation factors. The prequalification process NDOT developed might have a negative impact on minority- and women-owned for all of the reasons previously discussed under the Contractors' Board licensing system. Each of the factors included in NDOT's system might have a negative effect on minority- and women-owned firms, reinforcing the effects of any race or gender discrimination in the marketplace.

NDOT's prequalification process also misses an opportunity to consider contractor compliance with the DBE Program in the past, or its EEO performance or similar track record.

Bonding. State law requires prime contractors to submit bid bonds (or other security) with bids on NDOT construction contracts, and when successful, to procure bonds covering performance and labor and materials for the project.

Barriers presented by bonding are discussed in Chapter 4 and Appendix J.

Insurance. Also by state law, contractors are required to obtain general liability and auto liability insurance when performing NDOT contracts.

Bidder preference. State law provides for a local business preference for non-federally-funded construction contracts of more than $250,000 (NRS 338.147). Firms that have paid at least $5,000 in certain state taxes per year for five consecutive years can apply for a local preference for public works contracts. Firms eligible for the local preference receive a 5 percent preference in determining low bidder. Taxes reviewed are state sales and use taxes on construction materials for construction in the state and the state government services taxes on vehicles used in the business. Contractors submit applications and CPA statements to the State Contractors' Board concerning taxes paid. The Board can then issue a certificate of eligibility for the local preference, which must be renewed annually.

As noted in the 2007 Study, the current local bid preference disadvantages local businesses that have not been in operation for five years and those local contractors that are too small to have paid $5,000 per year in relevant state taxes.

E-Bidding. Bidders are now able to use the NDOT Electronic-Bidding Portal (E-Bidding) to electronically obtain plans and specifications, prepare and submit bids, submit bid bonds, and submit subcontractor reports and DBE information. In the E-Bidding system, bid information is entered online.

Contractors interviewed in the study generally had favorable comments about the electronic bidding system, and the training NDOT provided about the system (see Appendix J).

Other factors in construction contracts that might affect small contractors including MBE/WBEs. Although not bidding requirements for NDOT prime contracts, size of contracts and contractors' experiences with payment on those contracts are also important considerations.

- **Size of NDOT construction contracts.** As demonstrated in the analysis of MBE/WBE prime contractor utilization for small and large NDOT construction contracts, size of contract can be a major barrier to MBE/WBE prime contractors. Many business owners and managers interviewed in the study reported that size of contracts was a barrier to bidding as a prime contractor on NDOT construction projects (see Appendix J). Combined with the processes that limit the size of NDOT construction contracts a firm can bid (discussed above), this is a barrier for small firms to work as prime contractors on NDOT projects. It may have an added negative effect on minority-owned firms as indicated by the disparities in MBE utilization as prime contractors on NDOT construction contracts and the disadvantages for MBEs in the marketplace discussed summarized in Chapter 4.

However, NDOT's informal bid process (for contracts of $250,000 or below) is successful in encouraging bids from MBE/WBEs.

- **NDOT payment policy.** NDOT has a policy of paying invoices within two weeks. Some individuals interviewed had favorable comments about this payment policy. (Although interviewees said they had difficulty getting paid, they tended to be engineering firms, not construction contractors.) Some interviewees and participants in public meetings urged NDOT to retain this payment policy, and to not consider paying just once per month.

E. Does analysis of utilization as prime consultants and subconsultants on engineering-related contracts help to explain the disparities on those contracts?

As reported in Chapter 6 and Chapter 7, there was little MBE/WBE utilization on NDOT engineering-related contracts, and there were large disparities in the utilization of all MBE groups and WBEs on those contracts.

Keen Independent further explored utilization and disparity results for prime contracts and subcontracts on engineering-related contracts. We also examine potential barriers to MBE/WBE participation.

1. Do results differ for prime contracts and subcontracts? MBE/WBE participation was low as prime consultants and as subconsultants on NDOT engineering-related contracts.

Utilization. WBEs received three engineering related prime contracts during the study period, which amounted to less than 0.1 percent of all prime contract dollars. None of the prime consultants were firms the study team identified as MBEs.

As shown in Figure 8-7, MBE/WBEs received 3.4 percent of subcontract dollars on engineering related contracts.

Figure 8-7.
MBE/WBE and DBE share of FHWA- and state-funded prime contract and subcontract dollars on NDOT engineering projects, 2007–June 2012

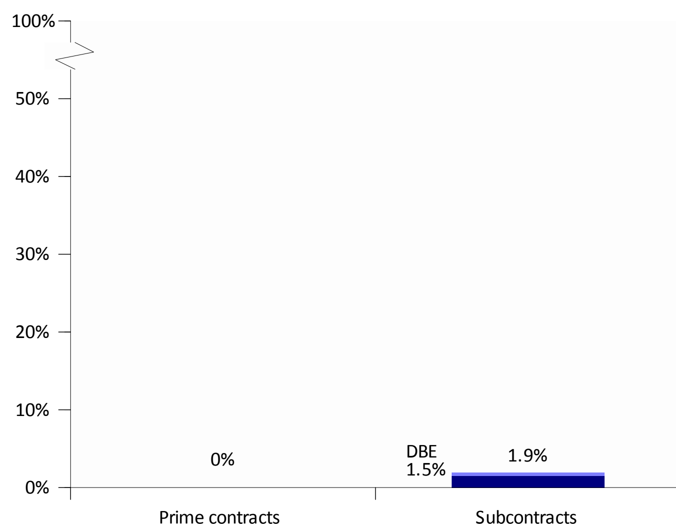
Note:

Number of contracts/subcontracts analyzed is 224 for prime contracts and 96 for subcontracts.

For more detail and results by group see Figures K-17 and K-18 in Appendix K.

Source:

Keen Independent from NDOT contract data.



Disparity analysis. Figure 8-8 shows disparity indices for engineering-related prime contracts (darker bars) and subcontracts (lighter bars) for MBE/WBEs overall and separately for WBEs and MBEs.

- There were substantial disparities for MBEs and for WBEs as prime consultants on engineering contracts (disparity index of 5 for WBEs and 0 for MBEs).
- For WBEs, the average size of the prime contract was considerably lower than the average size for all firms ($14,000 mean prime contract value compared with $743,000 overall).

Figure 8-8 also presents disparity indices for engineering-related subcontracts. Utilization of WBEs and MBEs as subcontractors is also substantially lower than availability (a disparity index of 16 and 18, respectively).

Figure 8-8.
Disparity indices for MBE/WBE utilization as prime contractors and subcontractors on NDOT and LPA Program engineering contracts, 2007-June 2012

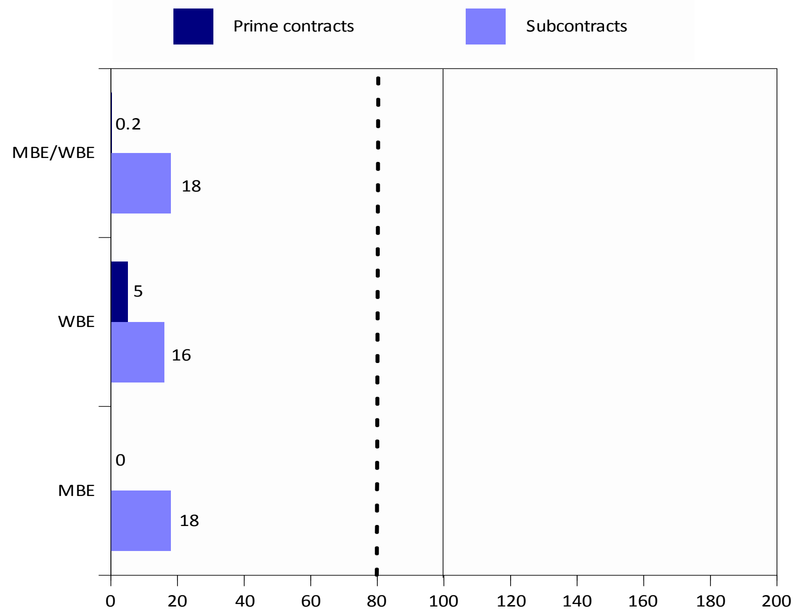
Note:

Number of contracts/subcontracts analyzed is 224 for prime contracts and 96 for subcontracts.

For more detail and results by group see Figures K-17 and K-18 in Appendix K.

Source:

Keen Independent disparity analysis.



Proposers on NDOT engineering-related contracts. Keen Independent Research examined utilization of minority- and women-owned firms as prime consultants on NDOT engineering and related professional service projects. Keen Independent was able to draw a sample of 12 agreements over $250,000. A total of 30 firms made 42 proposal submissions on the 12 sample agreements. Two of the proposing firms were identified as women-owned firms. Neither of the WBE firms was awarded an agreement. None of the proposing firms were MBEs.

2. Potential barriers to receiving NDOT engineering-related work. Unlike construction prime contracts, NDOT and other public agencies typically select prime consultants for engineering contracts based on qualifications. This presents a different set of potential barriers for small business participation.

NDOT typically procures engineering services through a multi-step, qualifications-based procurement process. There are many NDOT divisions that can put out RFPs for engineering

services. There is also on-call work that is rotated among engineering firms. Teams compete for these contracts biennially (essentially being "pre-qualified" for this work).

Licensing. Proper licensing is one requirement for performing NDOT engineering-related work. For example, firms conducting engineering services for NDOT must have individuals with a professional engineers (PE) license. The Nevada State Board of Professional Engineers and Land Surveyors issues licenses in Nevada. NRS 625 outlines requirements to obtain a PE or surveyors license, which include certain education, experience and in many cases, a licensing exam. Unlike construction, licensing is solely based on the professional credentials of the individual and does not consider financial factors. Licensing follows the individual professional engineer or land surveyor. Professional engineers licensed in other states can request similar licensing in Nevada.

Firms performing engineering or land surveying services must employ an appropriately licensed professional engineer or professional land surveyor.

Information on engineering work. NDOT advertises transportation engineering opportunities on its website and its emailed Contractor Bulletins, the Engineering News-Record, notices in specialty publications and other communications. Even so, a number of firm owners and managers who were interviewed said they had difficulty learning about NDOT work. They indicated that firms with a long history of working with NDOT might easily learn of upcoming opportunities.

On-call agreements. NDOT retains engineering teams and related consultants through an on-call process and through Requests for Proposals.

Through on-call agreements, NDOT is able to create a panel of engineering teams that can then compete for specific task orders, as needs arise. Prequalification is the first step. (Subconsultants do not need to be prequalified to be used on the on-call assignments.)

Each year, NDOT solicits prequalification applications for engineering-related work. Firms seeking prequalification can apply at any time during the year. Prequalification allows the business to then compete for specific agreements. A firm can seek prequalification for several disciplines. The NDOT evaluation committee considers factors such as:

- Professional excellence;
- Capacity;
- Project team;
- Past performance (for NDOT and other clients);
- Location of project team;
- Project approach; and
- Other factors.

Firms receive scores for each evaluation criterion. Each criterion may have a different weight. Prices or rates are not considered in this evaluation.

When NDOT has a need for a particular service, firms that are pre-qualified for on-call agreements compete with one another by submitting proposals for the master agreement. Evaluation criteria to be selected for a master agreement include:

- Project approach, including team understanding of scope, identification of potential complications and methods (45 points);
- Project team, including a list of team personnel's qualifications and experience (35 points); and
- Cost (20 points)

The firms are then ranked, and an agreement is negotiated with the highest-ranked proposer. If an acceptable agreement cannot be reached with the highest-ranked Proposer, the evaluation committee moves on to the next highest ranked proposer.

Once firms have been awarded master agreements for on-call work, NDOT issues task orders as it needs work done. Assignments are typically rotated, with the first assignment usually going to the firm ranked highest among all firms awarded master agreements for a discipline. The second assignment then goes to the second-ranked firm. NDOT can go outside this order if needed. (District-awarded task orders are not required to adhere to this rotation.)

Once a firm is selected for a task order, NDOT and the firm negotiate a scope of work, schedule, personnel hours and fees.

Qualifications-based selection for larger or unusual engineering contracts. Some engineering work is either too large to be handled through the on-call process or is outside the disciplines encompassed by existing on-call agreements. These contracts are awarded through an RFP process. NDOT may conduct a two stage process: evaluation of written qualifications statements and evaluation of a short-list of firms in an interview. Different team of evaluators rate firms at the initial stage and the interview stage. Once a firm is selected, NDOT and the firm negotiate final scope of work, rates and prices.

Feedback from interviews. Business owners and other interviewees had a wide range of comments about NDOT's process for awarding engineering-related work.

- Interviewees reported that NDOT's contracts are bundled into big packages and typically go to a firm most qualified for the large bundle of work (usually a very large company). Bundling of engineering-related work makes it difficult to compete as a small business.
- Other firms said that NDOT proposal processes require large investment of time, which makes it difficult for smaller firms.

- Some interviewees said that qualifications-based work is difficult for smaller, newer firms to win because they may not have the track record with an agency. If a company needs experience with a client to win work, it is very difficult to get that first consulting assignment with the agency. This appears to be true for NDOT as well, and may disadvantage minority- and women-owned firms.

F. Is there any evidence of "overconcentration" of DBEs in certain types of work?

One white male-owned firm interviewed as part of this study indicated that the business had been negatively affected by the Federal DBE Program because of DBE contract goals on NDOT's FHWA-funded construction contracts. Work a company would normally pursue instead goes to DBEs in order to meet contract goals. This interviewee said the company was especially impacted because it performed trucking, a field where prime contractors often went to DBEs to meet goals.

The Federal DBE Program requires agencies implementing the program to take certain steps if they determine that "DBE firms are so overconcentrated in a certain type of work as to unduly burden the opportunity of non-DBE firms to participate in this type of work" (see 49 CFR Section 26.33(a)). The Federal DBE Program does not specifically define "overconcentration."

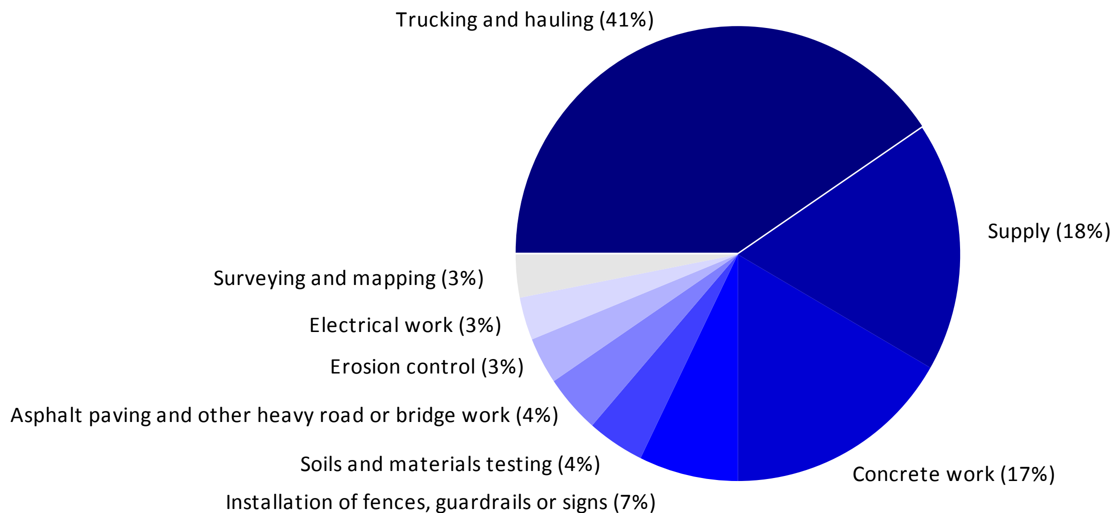
Keen Independent further researched this issue for trucking and other areas of subcontracting and supplies. For purposes of examining this issue, the study team examined:

- How DBE participation was distributed across subindustries;
- Whether DBEs obtained more than one-half of the subcontract dollars in any construction or engineering-related subindustry; and
- If so, whether firms in those subindustries tended to only work in those subindustries, as subcontractors on public sector contracts, or also work in other subindustries (or as prime contractors or in the private sector).

Keen Independent focused on subcontract dollars, by work type, awarded to DBEs and all firms. Because NDOT reinstated the DBE contract goals program in late 2010, the analysis is based on 2011 through June 2012 subcontract dollars. Data include FHWA- and state-funded contracts for both NDOT and LPA Program contracts.

Distribution of DBE participation across subindustries. About 40 percent of DBE subcontract dollars identified for 2011 through June 2012 went for work identified as trucking and hauling. Eighteen percent of the DBE participation was as suppliers and 17 percent was for concrete work. Beyond these subindustries, no other construction or engineering-related subindustry accounted for more than 10 percent of DBE subcontract dollars. Figure 8-9 on the next page examines these results.

Figure 8-9.
Distribution of DBE subcontract dollars by subindustry for NDOT and LPA Program contracts, 2011-June 2012



Source: Keen Independent from NDOT and LPA Program contract data 2011 through June 2012.

DBE share of total subcontract dollars within a subindustry. Keen Independent examined whether DBEs obtained more than one-half of the subcontract dollars in any construction or engineering-related subindustry (focusing on subindustries accounting for more than one-hundredth of 1 percent of total dollars).

There were three subindustries for which DBEs obtained more than one-half of subcontract dollars for 2011 through June 2012 based upon NDOT and LPA Program contract information:

- Soils and materials testing (98%);
- Erosion control (97%); and
- Trucking (58%).

However, because soils and materials testing and erosion control were relatively small areas of subcontracting in the 2011 through June 2012 contracts, they could easily show high utilization of DBEs. Trucking involves a greater volume of contract dollars.

Degree of specialization of firms in each subindustry. Keen Independent further researched information concerning firms available for soils and materials testing, erosion control and trucking work on NDOT contracts. From information provided by firms available for trucking and hauling work in the availability interviews conducted as part of this study, it appears that:

- Nearly all (94%) of the firms available for NDOT soils and materials testing work also perform work outside of that work type, and 93 percent of the firms available for NDOT soils and materials work also pursue work on private sector contracts.
- All of firms available for NDOT erosion control work also perform work outside of that work type, and about 94 percent of the firms available for NDOT erosion control work also pursue work on private sector contracts.
- Three-quarters of firms available for NDOT trucking work also perform work outside of trucking and hauling, and 95 percent of the firms available for NDOT trucking work also pursue work on private sector contracts.

Therefore, it appears that many firms available for NDOT soils and materials testing, erosion control and trucking work do not solely specialize in those fields, or public sector (or NDOT) subcontracts. This information also suggests that the DBE contract goals program might not unduly burden non-DBE firms in these subindustries.

Summary

Chapter 8 explored six areas of questions:

A. Are disparities found in some regions of the state and not in others?

B. Are there disparities for NDOT and LPA Program contracts?

C. Are there disparities for state-funded and FHWA-funded contracts?

D. Does analysis of utilization as prime contractors and subcontracts on construction contracts help to explain the disparities on those contracts?

E. Does analysis of utilization as prime consultants and subconsultants on engineering-related contracts help to explain the disparities on those contracts?

F. Is there any evidence of "overconcentration" of DBEs in certain types of work?

A. Results by region. Keen Independent's analysis identified overall disparities in the utilization of MBEs across regions of the state.

There were no disparities in overall utilization of WBEs in any of the three regions.

B. NDOT and LPA Program contracts. There were disparities for MBEs for both sets of contracts.

Utilization of WBEs exceeded availability for both sets of contracts.

C. Results for state-funded and FHWA-funded contracts. There were overall disparities in the use of MBEs on both state- and FHWA--funded contracts.

There were no overall disparities for WBEs for either set of contracts

D. Further analysis of NDOT construction contracts. For construction, MBE/WBE utilization was much lower for prime contracts than subcontracts. There were disparities for MBEs but not WBEs for construction prime contracts.

About one-quarter of prime contract dollars informal bid contracts went to MBE/WBEs. There was still a disparity in the utilization of MBEs, but not as large for all prime contracts. Utilization of WBEs for informal bid contracts exceeded WBE availability.

Aspects of State of Nevada and NDOT requirements for bidding on construction contracts appear to negatively affect contract opportunities for small contractors. These components may have more of a negative impact on minority-owned firms.

E. Further analysis of NDOT engineering-related contracts. There were disparities for MBE utilization and for WBE utilization in NDOT engineering-related contracts when separately examining prime contracts and subcontracts.

It appears that relatively few proposers are MBE/WBEs. Bundling of engineering contracts and the qualifications-based award process may place small or new consultants, including MBE/WBEs, at a disadvantage.

F. Analysis of potential overconcentration. Overconcentration is a potential issue for NDOT as it operates the Federal DBE Program. DBE trucking work accounted for much of total DBE subcontract dollars after the DBE contract goals program was reinstated. Examining all DBE participation on NDOT contracts for 2011 through June 2012, trucking accounted for 40 percent of those dollars.

Keen Independent also examined DBEs' share of total subcontract dollars within certain types of work. More than 50 percent of NDOT subcontract dollars for trucking appeared to go to DBEs from 2011 through June 2012. NDOT might have overconcentration in two smaller fields as well: materials testing and erosion control.

However, Keen Independent's analysis of firms available for these three types of work shows that, in general, businesses in these fields might not be dependent on NDOT for work. Most businesses performing any of these three types of work also perform other types of work, and they pursue private sector contracts as well.

CHAPTER 9.
Summary of Evidence from Marketplace and Disparity Analyses

The balance of the report presents information that will assist NDOT as it sets an overall DBE goal (Chapter 10), projects the maximum feasible portion of the overall DBE goal to be met through neutral means (Chapter 11) and designs components of its implementation of the program to follow federal regulations (Chapter 12). Before proceeding to these analyses, it is useful to summarize the information presented in earlier chapters concerning the marketplace and the disparity analyses for NDOT and LPA Program transportation contracts.

A. Marketplace Analyses

Quantitative information. There is evidence of disparities in the Nevada marketplace for minorities and women, and minority- and women-owned firms, pertaining to:

- Entry and advancement;
- Business ownership;
- Access to business capital, bonding and insurance; and
- Success of businesses.

The quantitative analysis of marketplace conditions identified some evidence of disparities for women and each minority group:

- African Americans;
- Asian-Pacific Americans;
- Subcontinent Asian Americans;
- Hispanic Americans; and
- Native Americans.

Chapter 4 and Appendices E, F, G and H present further information.

Qualitative information. There is also qualitative evidence of discrimination against minority-owned businesses and women-owned businesses in the Nevada marketplace from in-depth interviews, availability interviews, a 2010 disparity study conducted in Las Vegas and other sources. This includes evidence of a "good ol' boy" network in Nevada that appears to have a negative effect on opportunities for minority- and women-owned firms. As discussed in Chapter 4, the qualitative information is consistent with Keen Independent's quantitative analyses of marketplace conditions in Nevada.

Analysis of marketplace conditions also suggests that the severe economic downturn in Nevada had more of a negative effect on minority- and women-owned firms than other businesses.

B. Disparity Analyses for NDOT Contracts

Keen Independent examined NDOT and LPA Program transportation contracts from 2007 through June 2012. The study team separately analyzed non-goals contracts and contracts that had DBE contract goals applied, and contracts for 2007-2009 compared with 2010 through June 2012. Keen Independent examined additional subsets of contracts, including construction and engineering prime contracts, when exploring what might be contributing to overall disparity results.

The following summarizes disparity results by MBE group and for WBEs.

African American-, Asian-Pacific American-, Subcontinent American- and Native American-owned firms. Overall and across nearly each subset of NDOT and LPA Program transportation contracts examined in the study, utilization was substantially below availability for:

- African American-owned firms;
- Asian-Pacific American-owned firms;
- Subcontinent Asian American-owned firms; and
- Native American-owned firms.

Combined, firms owned by members of the four groups above received 0.1 percent of the total dollars on NDOT and LPA Program contracts. Combining availability results for the four groups, one might expect those firms to receive 3.8 percent of the contract dollars. The resulting disparity index was 3, where a value of 100 indicates "parity," and a value of 80 indicates a "substantial disparity."

Hispanic American-owned firms. Considering all NDOT and LPA Program transportation contracts examined, utilization of Hispanic American-owned firms (2.2%) was somewhat below what might be expected from the availability analysis (2.4%). This was not a substantial disparity (disparity index did not fall below 80).

However, there was a substantial disparity in the utilization of Hispanic American-owned firms for the most recent portion of the study period — 2010 through June 2012 — even with the DBE contract goals program in place for much of this time. Hispanic American-owned firms received 1.4 percent of contract dollars during these years, one-half of what might be expected from the availability analysis (disparity index of 50).

The economic downturn had a large negative effect on firms in the transportation contracting industry in Nevada, and there is evidence that MBEs and WBEs, on balance, were more affected than other firms. Although the relative number of Hispanic American-owned firms in the Nevada transportation contract industry did not decline between 2007 and 2013, their overall dollar-weighted availability for NDOT contracts did decrease (after considering the types, sizes, locations and timing of prime contracts and subcontracts).

NDOT should review all of the disparity results for Hispanic American-owned firms; the large disparities for Hispanic American-owned firms in the most recent time period may be important when determining whether Hispanic American-owned firms will be included in any future race-conscious programs.

White women-owned firms. Keen Independent now turns to the results for companies owned by non-Hispanic white women.[1]

All NDOT and LPA Program contracts. Utilization of white women-owned firms on NDOT and LPA Program contracts (2.9%) was more than twice as high as might be expected based on the availability of WBEs for that work. Utilization of WBEs was more than twice the WBE availability benchmark when considering the 2010 through June 2012 time period or just non-goals contracts for the study period. Although small, utilization of WBEs as prime contractors on NDOT and LPA Program construction contracts still exceeded WBE availability for that work.

Engineering contracts. There was one area of very large disparities for WBEs — NDOT and LPA Program engineering-related work. WBEs received only 0.1 percent of engineering contract dollars during the study period. The resulting disparity index was 9, far more severe than the "80" level that would indicate a substantial disparity.

There was also some qualitative information that indicated gender-based barriers could affect the success of women-owned firms when pursuing engineering-related work in Nevada and at NDOT.

C. Conclusions

When determining how to operate the Federal DBE Program for the coming years, NDOT should examine quantitative and qualitative information for both the marketplace and NDOT and LPA Program transportation contracts. Some of this information is provided in this disparity study; NDOT should consider additional public input and other sources of information as well.

Based on the information in the disparity study, there appears to be:

- A continued need for NDOT efforts to open contracting opportunities to small businesses in general.
- Quantitative and qualitative evidence that minority-owned firms in the Nevada transportation contracting industry are at a disadvantage in the marketplace and when pursuing NDOT and LPA Program work. (This evidence includes disadvantages and disparities in NDOT contracting for each MBE group included in the Federal DBE Program.)
- Quantitative and qualitative evidence that white women-owned firms in the Nevada transportation contracting industry are at a disadvantage in the marketplace, and quantitative and qualitative evidence of gender-based disadvantages when pursing NDOT and LPA Program engineering-related work. (There is no evidence of disparities for WBEs in general for NDOT and LPA Program transportation contracts, even when the DBE contract goals program was not in place.)

[1] The disparity results for minority-owned firms summarized above include businesses owned by minority women, which are most relevant disparity results when determining inclusion of minority women in any future race- or gender-conscious programs.

NDOT should consider these results when determining DBE groups eligible for any future DBE contract goals program. If NDOT concludes that it should continue to operate a DBE contract goals program:

- With the narrow-tailoring requirements in the Ninth Circuit decisions, NDOT might consider requesting a waiver from FHWA that would allow it to only include minority-owned DBEs as eligible to meet DBE contract goals (to address utilization of WBEs on NDOT contracts that is more than twice WBE availability).

- Although there was no disparity in WBE utilization in NDOT contracts overall, NDOT faces the unique situation of nearly 0 percent utilization for white women-owned firms in its engineering-related contracts. It is recommended that NDOT consult with FHWA to identify an appropriate response in accordance with Federal DBE Program requirements and relevant court decisions.

Chapter 8 also identified some evidence of overconcentration of DBE participation in certain fields. NDOT should consider this information when monitoring future DBE utilization and when designing program elements, including any use of DBE contract goals.

NDOT should review these results and other information as it sets an overall DBE goal for the next three fiscal years, projects the portion of the goal to be met through neutral means, and determines how it will operate the Federal DBE Program during this period.

CHAPTER 10.
Overall Annual DBE Goal

As part of its implementation of the Federal DBE Program, NDOT is required to set an overall annual goal for DBE participation in its FHWA-funded transportation contracts. The Final Rule effective February 28, 2011 revised requirements for goal-setting so that agencies that implement the Federal DBE Program only need to develop and submit overall annual DBE goals every three years. NDOT last submitted its overall annual DBE goal (a goal of 10.48%) for federal fiscal years 2011 through 2013. It must submit a new goal in 2013 for fiscal years 2014 through 2016.

NDOT must prepare and submit a Goal and Methodology document to FHWA that presents its overall annual DBE goal for the next three fiscal years, supported by information about the steps used to develop the overall goal. Chapter 10 provides information that NDOT might consider as part of setting its overall annual DBE goal. Chapter 10 is organized in two parts, based on the two-step process that 49 CFR Part 26.45 outlines for agencies to set their overall goals:

A. Establishing a base figure; and

B. Consideration of a step 2 adjustment.

Through these steps, agencies such as NDOT are to determine "the level of DBE participation you would expect absent the effects of discrimination."[1]

A. Establishing a Base Figure

Establishing a base figure is the first step in calculating an overall annual goal for DBE participation in NDOT's FHWA-funded transportation contracts.

As presented in Chapter 5, potential DBEs are available for 4.5 percent of NDOT FHWA-funded transportation contracts based on analysis of 2010 through June 2012 FHWA-funded contracts.[2] NDOT might consider 4.5 percent as the base figure for its overall annual DBE goal if it anticipates that the types of FHWA-funded contracts that the agency will award in federal fiscal years 2014 through 2016 are, on balance, reasonably similar to the types of FHWA-funded contracts that the agency awarded during the 2010 through June 2012 study period.

B. Consideration of a Step 2 Adjustment

Per the Federal DBE Program, NDOT must consider potential step 2 adjustments to the base figure as part of determining its overall annual DBE goal. NDOT is not required to make any step 2 adjustments as long as it considers appropriate factors and explains its decision in its Goal and Methodology document.

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[1] 49 CFR Section 26.45(b).

[2] As discussed in Chapter 5, potential DBEs are MBE/WBEs that are DBE-certified or appear that they could be DBE-certified based on annual revenue limits described in 49 CFR Part 26.

The Federal DBE Program outlines factors that an agency must consider when assessing whether to make any step 2 adjustments to its base figure:

1. Current capacity of DBEs to perform work, as measured by the volume of work DBEs have performed in recent years;
2. Information related to employment, self-employment, education, training, and unions;
3. Any disparities in the ability of DBEs to get financing, bonding and insurance; and
4. Other relevant data.[3]

Keen Independent completed an analysis of each of the above step 2 factors and was able to quantify the effect of certain factors on the base figure. Other information examined was not as easily quantifiable but is still relevant to NDOT as it determines whether to make any step 2 adjustments.

1. Current capacity of DBEs to perform work, as measured by the volume of work DBEs have performed in recent years. USDOT's "Tips for Goal-Setting" suggests that agencies should examine data on past DBE participation on their USDOT-funded contracts in recent years. Figure 10-1 presents past DBE participation based on NDOT Uniform Reports of DBE Awards or Commitments and Payments reported to the FHWA since the 2007 Availability and Disparity Study.

Figure 10-1.
NDOT reported past DBE participation on
FHWA-funded contracts, fiscal years 2007-2012

Federal fiscal year	DBE commitments/ awards
2007	0.1 %
2008	2.3 %
2009	4.2 %
2010	0.1 %
2011	3.5 %
2012	6.6 %
2013	8.2 %

* First six months of FFY 2013.

Source: NDOT Uniform Reports of DBE Awards/Commitments and Payments.

Mean DBE participation for FHWA-funded contracts for FFY 2007 through FFY 2012 was 2.2 percent based on NDOT's reports. Keen Independent's analysis of "mean" DBE participation for FHWA-funded contracts from January 2007 through June 2012 showed a similar result 1.8 percent. (From FFY 2007 through FFY 2013, NDOT's reports indicated mean utilization of 2.8 percent.)

NDOT completed a new analysis of past participation for FFY 2011, 2012 and 2013 in fall 2013. It showed 3 percent, 6.67 percent and 8.18 percent participation for those years, respectively.

[3] 49 CFR Section 26.45.

USDOT suggests that agencies should choose the median level of annual DBE participation for relevant years as the measure of past participation: "Your goal setting process will be more accurate if you use the median (instead of the average or mean) of your past participation to make your adjustment because the process of determining the median excludes all outlier (abnormally high or abnormally low) past participation percentages."[4]

For NDOT, it is most instructive to examine DBE participation in years when NDOT operated a DBE contract goals program. Just considering FFY 2011, FFY 2012 and FFY 2013 based on the most recently reported data from NDOT, median DBE participation was 6.67 percent. This information suggests an upward adjustment to the base figure.

2. Information related to employment, self-employment, education, training, and unions. Chapter 4 summarizes information about conditions in the Nevada transportation contracting industry for minorities, women and MBE/WBEs. Detailed quantitative analyses of marketplace conditions in Nevada are presented in Appendices E through H. Keen Independent's analyses indicate that there are barriers that certain minority groups and women face related to entry and advancement and business ownership in the Nevada construction and engineering industries. Such barriers may affect the availability of MBE/WBEs to obtain and perform NDOT and local agency transportation contracts.

It may not be possible to quantify the cumulative effect that barriers in employment, education, and training may have had in depressing the availability of minority- and women-owned firms in the Nevada transportation contracting industry. However, the effects of barriers in business ownership can be quantified, as explained below.

The study team used regression analyses to investigate whether race, ethnicity and gender affected rates of business ownership among workers in the Nevada construction and engineering industries. The regression analyses allowed the study team to examine those effects while statistically controlling for various personal characteristics including education and age (Appendix F provides detailed results of the business ownership regression analyses).[5] Those analyses revealed that women were less likely than men to own construction and engineering businesses, even after accounting for various gender-neutral personal characteristics. Each of these disparities was statistically significant.

Keen Independent analyzed the impact that barriers in business ownership would have on the base figure if women owned businesses at the same rate as similarly-situated men. This type of inquiry is sometimes referred to as a "but for" analysis because it estimates the availability of MBE/WBEs *but for* the effects of race- and gender-based discrimination.

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[4] Section III (A)(5)(c) in USDOT. Tips for Goal-Setting in the Federal Disadvantaged Enterprise (DBE) Program as updated June 25, 2013 http://www.dot.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise.

[5] The study team examined U.S. Census data on business ownership rates using methods similar to analyses examined in court cases involving state departments of transportation in California, Illinois, and Minnesota.

Figure 10-2 calculates the impact on overall MBE/WBE availability, resulting in possible upward adjustment of the base figure to 5.9 percent. The analysis included the same contracts that the study team analyzed to determine the base figure (i.e., FHWA-funded construction and engineering prime contracts and subcontracts that NDOT and local agencies awarded from 2010 through June 2012). Calculations are explained below.

Figure 10-2.
Potential step 2 adjustment considering disparities in the rates of business ownership

Industry and group	a. Current availability	b. Disparity index for business ownership	c. Availability after initial adjustment*	d. Availability after scaling to 100%	e. Components of base figure**
Construction					
Minorities	2.8 %	n/a	2.8 %	2.8 %	
White women	1.4	48	2.9	2.9	
Potential DBEs	4.3 %	n/a	5.7 %	5.6 %	5.4 %
All other businesses ***	95.7	n/a	95.7	94.4	
Total firms	**100.0** %	n/a	**101.4** %	**100.0** %	
Engineering					
Minorities	7.5 %	n/a	7.5 %	7.3 %	
White women	1.4	32	4.4	4.2	
Potential DBEs	8.9 %	n/a	11.9 %	11.5 %	0.5 %
All other businesses	91.1	n/a	91.1	88.5	
Total firms	**100.0** %	n/a	**103.0** %	**100.0** %	
Total for potential DBEs	**4.5** %	n/a	n/a		**5.9 %**

Note: * Initial adjustment is calculated as current availability divided by the disparity index.
** Components of the base figure were calculated as the value after adjustment and scaling to 100 percent, multiplied by the percentage of total FWHA-funded contract dollars in each industry (construction = 96%, engineering = 4%).
*** All other businesses included majority-owned businesses and MBE/WBEs that were not potential DBEs.

Source: Keen Independent based on NDOT and LPA Program FHWA-funded contracts for 2010 through June 2012, 2013 availability analysis, and statistical analysis of U.S. Census Bureau American Community Survey data for Nevada for 2009-2011.

The study team completed "but for" analyses separately for construction and engineering contracts and then weighted the results based on the proportion of FHWA-funded contract dollars that NDOT awarded for construction and engineering for 2010-June 2012 (i.e., a 96% weight for construction and 4% weight for engineering). The rows and columns of Figure 10-2 present the following information from Keen Independent's "but for" analyses:

a. **Current availability.** Column (a) presents the current availability of potential DBEs by MBE/WBE group and by industry, as presented in Chapter 5. Each row presents the percentage availability for MBEs and WBEs. Combined, the current availability of potential DBEs for NDOT FHWA-funded transportation contracts for 2010-June 2012 is 4.5 percent, as shown in bottom row of column (a).

b. **Disparity indices for business ownership.** As presented in Appendix F, white women were significantly less likely than similarly-situated men to own construction and engineering businesses, the study team calculated simulated business ownership rates if those groups owned businesses at the same rate as white males who share similar personal characteristics. The study team then calculated a business ownership disparity index for white women by dividing the observed business ownership rate by the benchmark business ownership rate and then multiplying the result by 100.

   Column (b) of Figure 10-2 presents disparity indices related to business ownership for the different racial/ethnic and gender groups. For example, as shown in column (b), white women own construction businesses at 48 percent of the rate that would be expected based on the simulated business ownership rates of white males who share similar personal characteristics. Appendix F explains how the study team calculated the disparity indices.

c. **Availability after initial adjustment.** Column (c) presents availability estimates for MBEs and WBEs by industry after initially adjusting for statistically significant disparities in business ownership rates. Keen Independent calculated those estimates by dividing the current availability in column (a) by the disparity index for business ownership in column (b) and then multiplying by 100. Note that Keen Independent only made adjustments for white women because that was the only group for which disparities in business ownership were statistically significant after controlling for other factors.

d. **Availability after scaling to 100%.** Column (d) shows adjusted availability estimates that were re-scaled so that the sum of the availability estimates equals 100 percent for each industry. Keen Independent re-scaled the adjusted availability estimates by taking each group's adjusted availability estimate in column (c) and dividing it by the sum of availability estimates shown under "Total firms" in column (c) —and multiplying by 100. For example, the scaled availability estimate for WBEs shown for engineering was calculated in the following way: (4.4% ÷ 103.0%) x 100 = 4.2%.

e. **Components of goal.** Column (e) of Figure 10-2 shows the component of the total base figure attributed to the adjusted MBE and WBE availability for each industry. Keen Independent calculated each component by taking the total availability estimate shown under "Potential DBEs" in column (d) for construction and for engineering — and multiplying it by the proportion of total FHWA-funded contract dollars in each industry (i.e., 96% for construction and 4% for engineering). For example, Keen Independent used the 5.6 percent shown for MBE/WBE construction firms in column (d) and multiplied it by 96 percent for a result of 5.4 percent. A similar weighting of MBE/WBE availability for engineering produced a value of 0.5 percent.

   The values in column (e) were then summed to equal the overall base figure adjusted for barriers in business ownership — 5.9 percent shown in the bottom of column (e).

Based on information related to business ownership, NDOT might consider an upward adjustment to its overall DBE goal. This analysis would support an upward adjustment for this factor equal to 1.4 percentage points, equal to the difference between the 5.9 percent figure from the "but-for" analysis of business ownership rates and the 4.5 percent base (5.9% - 4.5% = 1.4%).

3. Any disparities in the ability of DBEs to get financing, bonding and insurance. Analysis of access to financing and bonding revealed quantitative and qualitative evidence of disadvantages for minorities, women and MBE/WBEs.

- Any barriers to obtaining financing and bonding might affect opportunities for minorities and women to successfully form and operate construction and engineering businesses in the Nevada marketplace.
- Any barriers that MBE/WBEs face in obtaining financing and bonding would also place those businesses at a disadvantage in obtaining NDOT and local agency construction and engineering prime contracts and subcontracts.

Note that financing and bonding are closely linked, as discussed in Chapter 4 and Appendix J.

There is also evidence that some firms cannot bid on certain public sector projects because they cannot afford the levels of insurance required by the agency. This barrier appears to affect small businesses, which might disproportionately impact minority- and women-owned firms.

The information about financing, bonding and insurance supports an upward step 2 adjustment in NDOT's overall annual goal for DBE participation in FHWA-funded contracts.

4. Other factors. The Federal DBE Program suggests that federal aid recipients also examine "other factors" when determining whether to make any step 2 adjustments to their base figure.[6]

Success in the Nevada marketplace. Among the "other factors" examined in this disparity study was the success of MBE/WBEs relative to majority-owned businesses in the Nevada marketplace. There is quantitative evidence that certain groups of MBE/WBEs are less successful than majority-owned firms, and face greater barriers in the marketplace, even after considering neutral factors. Chapter 4 summarizes that evidence and Appendix H presents supporting quantitative analyses.

There is also qualitative evidence of barriers to the success of minority- and women-owned businesses, as summarized in Chapter 4 and further explored in Appendix J. Some of this qualitative information suggests that discrimination on the basis of race, ethnicity and gender affects minority- and women-owned firms in the Nevada transportation contracting industry.

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[6] 49 CFR Section 26.45.

Substantial decrease in MBE/WBE availability since 2007. The 2013 study team also completed NDOT's 2007 Availability and Disparity Study. The studies use similar approaches to collecting and analyzing information about the availability of MBEs, WBEs and majority-owned firms.

- The 2007 Study determined that MBE/WBEs accounted for about one-quarter of all firms available for transportation contracts in Nevada. As discussed in Chapter 5, MBE/WBEs also were one-quarter of firms available for transportation contracts in the 2013 availability analysis. Even after six years and dramatic changes in market conditions, overall MBE/WBE representation within the Nevada transportation contracting industry did not change.
- After considering type of work, location, size and timing of prime contracts and subcontracts, the 2007 Study determined an overall availability figure of 14.6 percent, on a dollar-weighted basis[7]
- However, the corresponding MBE/WBE availability figure presented in Chapter 5 is 7.4 percent, one-half of the overall MBE/WBE availability determined in 2007.[8]

On a dollar-weighted basis, availability dropped by about one-half for both MBEs and WBEs, and MBE/WBEs combined.

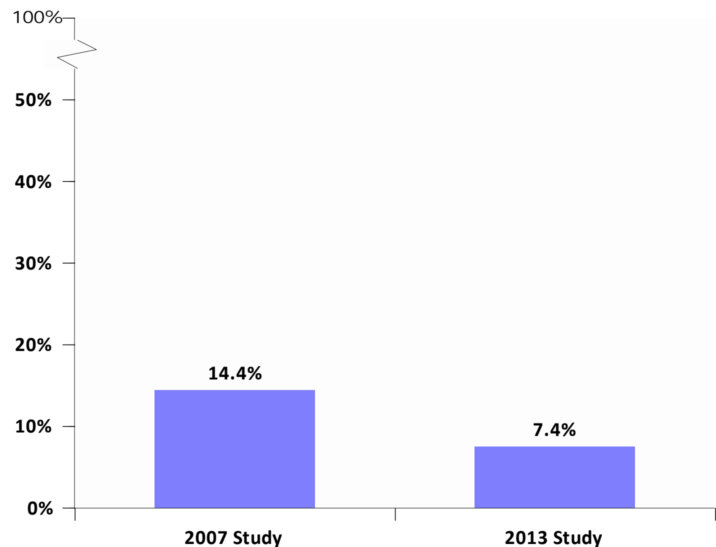
Figure 10-3.
MBE/WBE availability for NDOT FHWA-funded construction contracts, 2007 Study and 2013 Study

Note:

Figures are before any adjustment for graduated DBEs or other MBE/WBEs that appear that they cannot be certified as DBEs. Availability calculated based on analysis of October 2009 through 2006 and for 2007 through June 2012 FHWA-funded contracts, respectively.

Source:

Keen Independent availability analysis; BBC Research & Consulting 2007 NDOT Availability and Disparity Study.



[7] Before adjusting for graduated or large MBE/WBEs. Note that NDOT's overall DBE goal for FFY 2010 through FFY 2012 was based, in part, on the 2007 availability analysis.

[8] The 7.4 percent 2013 availability figure also includes graduated DBEs and other MBE/WBEs that appear that they could not be DBE-certified.

Comparison of availability interviewee responses between the 2007 and 2013 availability analysis provides some insights into why MBE/WBE dollar-weighted availability for NDOT contracts is lower in 2013. Although the relative number of MBE/WBEs was nearly the same in both studies, in 2013 the size of contracts MBE/WBEs bid on or were winning in the Nevada marketplace was considerably smaller than found in the earlier study.

- In the 2013 research, Keen Independent asked firms to identify "the largest transportation-related contract or subcontract that the firm had received in Nevada in the past five years." In 2013, relatively fewer MBE construction firms reported being awarded contracts exceeding $5 million (9% compared with 28% in the 2007 Study).[9]

- Because the availability analyses in both studies included the size of contract performed or bid on when calculating availability, this result might be one factor explaining why MBE/WBE availability is considerably lower in the 2013 analysis than the 2007 analysis.

- Similarly, the bid capacity analyses explained in Appendix H indicated that WBEs might not have the same bid capacity as similarly-situated majority-owned firms. Although these disparities in bid capacity for WBEs were not statistically significant at the 95 percent confidence level, the evidence of large disparities in bid capacity for WBEs might still be important. The 2007 Study also included regression analysis of bid capacity and did not suggest that lower bid capacity was related to female ownership after controlling for firm specialization and years in business.

In addition to the above factors, other differences in the 2007 and 2013 availability analysis might be relevant, including the types, sizes and location of NDOT contracts examined for October 1999 through 2006 compared with January 2007 through June 2012. However, there is substantial evidence in Chapter 4 and Appendix J that the economic downturn may have had a greater negative impact on minority- and women-owned firms than majority-owned firms.

Potential adjustment to the base figure. From the above information about "other factors," NDOT might consider an upward adjustment to the base figure (precise quantification is not possible, however).

Approaches for making step 2 adjustments. Keen Independent's analysis of each factor outlined in the Federal DBE Program suggests that NDOT should consider making an upward step 2 adjustment.

1. Current capacity of DBEs to perform work, as measured by the volume of work DBEs have performed in recent years. Analysis of this factor suggests an upward step 2 adjustment — for recent years, the median reported DBE participation on FHWA-funded contracts was 6.67 percent.

USDOT "Tips for Goal-Setting" suggests taking one-half of the difference between the base figure and evidence of current capacity as one approach to calculate the step 2 adjustment for that factor.

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[9] For WBEs and majority-owned firms, results concerning largest transportation contract received did not change substantially between the 2007 and 2013 studies.

The difference between the 4.5 percent base figure and 6.67 percent DBE participation is 2.17 percentage points. One-half of this difference is an upward adjustment of 1.08 percentage points. (2.17 ÷ 2 = 1.08)).

2. Information related to employment, self-employment, education, training, and unions. Keen Independent was not able to quantify all of the information regarding barriers to entry for MBE/WBEs. Quantification of one factor suggests an upward step 2 of 1.40 percentage points to reflect the "but-for" analyses of business ownership rates presented in Figure 10-2.

3. Any disparities in the ability of DBEs to get financing, bonding and insurance. Analysis of financing, bonding and insurance indicates that an upward adjustment is appropriate. Impact of these factors on availability could not be quantified, however.

4. Other relevant data. Impact of the many barriers to success of MBE/WBEs in Nevada could not be specifically quantified. However, there is strong evidence that market conditions after 2007 have had a disproportionate negative impact on the dollar-weighted availability of minority- and women-owned firms for FHWA-funded contracts.

Combined information. As presented above, multiple sources of information indicate that an upward step 2 adjustment is necessary in order to comply with instructions for setting an overall goal for DBE participation in the Federal DBE Program.[10]

Precise quantification of the cumulative effect of all of the factors is not possible. It may be appropriate for NDOT to make an adjustment for each of the two factors that could be quantified:

- An upward adjustment of 1.08 percentage points to reflect current capacity of DBEs to perform work (see point #1 above); and
- An upward adjustment of 1.40 percentage points to reflect the "but-for" analyses of business ownership rates for minorities and women working in the Nevada construction and engineering industries (see point #2 above).

After these adjustments, the overall DBE goal would be 6.98 percent, as shown in Figure 10-4.

Figure 10-4.
Calculation of overall DBE goal after making step 2 adjustments to base figure

Step 2 adjustment component	Value	Explanation
Base figure	4.50 %	From base figure analysis
Adjustment for current capacity	+ 1.08	1/2 of diff. between base figure and median past DBE participation
Adjustment for business ownership rates	+ 1.40	From "but-for" analysis of business ownership rates
Final overall DBE goal after step 2 adjustments	6.98 %	Final overall DBE goal

[10] 49 CFR Section 26.45.

CHAPTER 11.
Portion of DBE Goal to be Met through Neutral Means

The Federal DBE Program requires state and local transportation agencies to meet the maximum feasible portion of their overall DBE goals using race- and gender-neutral measures.[1] Race- and gender-neutral measures are initiatives that encourage the participation of all businesses, or all small businesses, and are not specifically limited to MBE/WBE/DBEs. Agencies must determine whether they can meet their overall DBE goals solely through neutral means or whether race- and gender-conscious measures — such as DBE contract goals — are also needed. As part of doing so, agencies must project the portion of their overall DBE goals that they expect to meet through race- and gender-neutral means and what portion they expect to meet through race- and gender-conscious programs.

- If an agency determines that it can meet its overall DBE goal solely through race- and gender-neutral means, then the agency would propose using only neutral measures as part of its program. The agency would project that 100 percent of its overall DBE goal would be met through neutral means and that 0 percent would be met through race- and gender-conscious means.
- If an agency determines that a combination of race- and gender-neutral and race- and gender-conscious measures are needed to meet its overall DBE goal, then the agency would propose using a combination of neutral and conscious measures as part of its program. The agency would project that some percent of its overall DBE goal would be met through neutral means and that the remainder would be met through race- and gender-conscious means.

USDOT offers guidance concerning how transportation agencies should project the portions of their overall DBE goals that will be met through race- and gender-neutral and race- and gender-conscious measures, including the following:

- USDOT Questions and Answers about 49 CFR Part 26 addresses factors for federal aid recipients to consider when projecting the portion of their overall DBE goals that they will meet through race- and gender-neutral means.[2]

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[1] 49 CFR Section 26.51.

[2] See http://www.dotcr.ost.dot.gov/Documents/Dbe/49CFRPART26.doc.

- USDOT "Tips for Goal-Setting" also suggests factors for federal aid recipients to consider when making such projections.[3]
- An FHWA template for how it considers approving DBE goal and methodology submissions includes a section on projecting the percentage of overall DBE goals to be met through neutral and conscious means. An excerpt from that template is provided in Figure 11-1.

Based on 49 CFR Part 26 and the resources above, general areas of questions that transportation agencies might ask related to making any projections include:

A. Is there evidence of discrimination within the local transportation contracting marketplace for any racial, ethnic or gender groups?

B. What has been the agency's past experience in meeting its overall DBE goal?

C. What has DBE participation been when the agency did not use race- or gender-conscious measures?[4]

D. What is the extent and effectiveness of race- and gender-neutral measures that the agency could have in place for the next fiscal year?

Chapter 11 is organized around each of those general areas of questions.

Figure 11-1.
Excerpt from Explanation of Approval of [State] DBE Goal Setting Process for FY [Year]

You must also explain the basis for the State's race-neutral/race-conscious division and why it is the State's best estimate of the maximum amount of participation that can be achieved through race-neutral means. There are a variety of types of information that can be relied upon when determining a recipient's race-neutral/race-conscious division. Appropriate information should give a sound analysis of the recipient's market, the race-neutral measures it employs and information on contracting in the recipient's contracting area. Information that could be relied on includes: the extent of participation of DBEs in the recipient's contracts that do not have contract goals; past prime contractors' achievements; excess DBE achievements over past goals; how many DBE primes have participated in the state's programs in the past; or information about state, local or private contracting in similar areas that do not use contracting goals and how many minority and women's businesses participate in programs without goals.

Source:
FHWA, Explanation for Approval of [State] DBE Program Goal Setting Process for FY [Year]. http://www.fhwa.dot.gov/civilrights/dbe_memo_a4.htm

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[3] http://www.osdbu.dot.gov/DBEProgram/tips.cfm.

[4] USDOT guidance suggests evaluating (a) certain DBE participation as prime contractors if the DBE contract goals did not affect utilization, (b) DBE participation as prime contractors and subcontractors for agency contracts without DBE goals, and (c) overall utilization for other state, local or private contracting where contract goals are not used.

A. Is there evidence of discrimination within the local transportation contracting marketplace for any racial, ethnic or gender groups?

As discussed in Chapter 4, Keen Independent examined conditions in the Nevada marketplace, including:

- Entry and advancement;
- Business ownership;
- Access to capital, bonding and insurance; and
- Success of businesses.

There was quantitative evidence of disparities for minority- and women-owned firms as a whole, and for specific groups, concerning the above issues. Qualitative information indicated some evidence of discrimination affecting the local marketplace, although some minority and female business owners interviewed in this and other recent disparity studies did not think they had been affected by any race or gender discrimination.

NDOT should review the information about marketplace conditions presented in this report, as well as other information it may have, when considering the extent to which it can meet its overall DBE goal through neutral measures.

B. What has been the agency's past experience in meeting its overall DBE goal?

NDOT's reported certified DBE participation since it reinstituted DBE contract goals is summarized in Figure 11-2. As shown, reported DBE participation on FHWA-funded contracts was 2 to 7 percentage points below the overall DBE goal for those years.

Figure 11-2.
NDOT reported past certified DBE participation on FHWA-funded contracts,

Federal fiscal year	DBE commitments/ awards	DBE goal	Difference
2011	3.00 %	10.48 %	-7.48 %
2012	6.67 %	10.48 %	-3.81 %
2013	8.18 %	10.48 %	-2.30 %

Source: NDOT reported Commitments/Awards from Uniform Reports of DBE Awards/Commitments and Payments.

C. What has DBE participation been when NDOT has not applied DBE contract goals (or other race-conscious remedies)?

Keen Independent analyzed a broad range of information to examine certified DBE participation when NDOT has not applied contract goals.

- **NDOT DBE participation reports.** NDOT did not apply race- or gender-conscious program elements for FFY 2007 through FFY 2010. Reported utilization ranged from 0.1 percent to 4.2 percent. Median participation for those four years was 1.2 percent.

- **Keen Independent calculation of certified DBE participation for non-goals contracts 2007 through June 2012.** DBE participation was 1.3 percent on NDOT and LPA Program contracts for which no DBE contract goals applied.

- **Results of the disparity analyses.** There was a substantial disparity in the utilization of MBEs with and without DBE contract goals. There were substantial disparities for each race and ethnic group of MBEs without DBE contract goals, except for Hispanic American-owned firms. However, there was a disparity for Hispanic American-owned firms when DBE contract goals applied (see Chapter 7).

  Overall, there were no disparities in the utilization of white women-owned firms on non-goals contracts. However, there was a substantial disparity in the utilization of WBEs on NDOT and LPA Program engineering-related contracts.

- **Participation of potential DBEs in NDOT contracts.** Participation of certified DBEs would be higher if more of the minority- and women-owned firms participating in NDOT and LPA Program contracts had applied for DBE certification. A large number of MBEs and WBEs that were not certified during the study period appear to be eligible for DBE certification. Only one out of four MBE/WBEs considered in the availability analysis for this disparity study were certified as DBEs (as of July 2013).[5]

  For these reasons, Keen Independent examined utilization of potential DBE firms (firms that are currently certified or appear to meet the revenue requirements for DBE certification) on non-goals contracts. Potential DBEs obtained 4.6 percent of the contract dollars awarded on FHWA-funded contracts that were issued under NDOT's non-goals contracts from 2007 through June 2012. Including just Nevada Barricade, a WBE that became DBE-certified in 2013, neutral participation would have been about 3 percent. NDOT might consider this 3 percent level of attainment as a minimum level of its overall DBE goal that can be reached through neutral means if NDOT were successful in encouraging every potential DBE to apply for DBE certification.

Figure 11-3 on the next page summarizes 2007 through June 2012 utilization of certified DBEs, potential DBEs (including those currently certified) and all minority- and women-owned firms.

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[5] There are many reasons why many minority- and women-owned firms in Nevada do not seek DBE certification, including perceptions that the process is lengthy and difficult, that certification has limited value, and that DBE certification might carry a negative stereotype. Appendix J provides further insights about DBE certification from non-certified and certified firms.

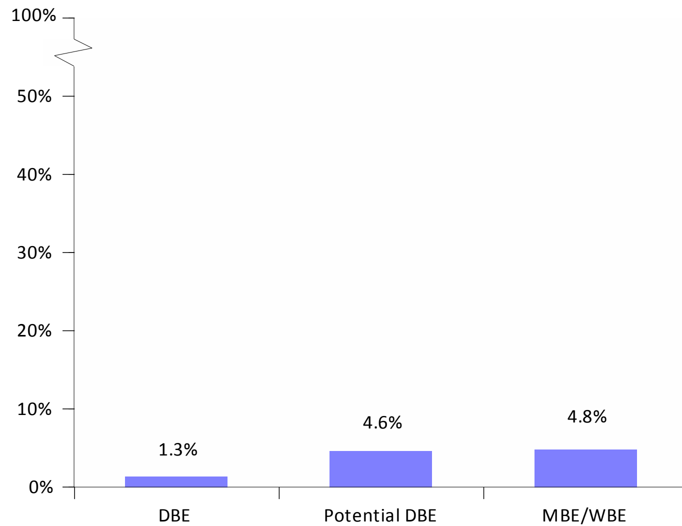
Figure 11-3.
Certified DBE, potential DBE and MBE/WBE utilization on NDOT and LPA Program non-goals contracts, 2007-June 2012

Note:

For more detail see Figure K-4.

Source:

Keen Independent from NDOT and LPA Program contract data.



D. What is the extent and effectiveness of race- and gender-neutral measures that the agency could have in place for the next fiscal year?

When determining the extent to which it could meet its overall DBE goal through the use of neutral measures, NDOT must review the race- and gender-neutral measures that it and other organizations have in place, and those it has planned or could consider for future implementation.

NDOT currently has a broad range of neutral programs and initiatives to encourage participation of small businesses — including DBEs — in its transportation contracts. The 2007 Study identified considerable use of neutral means at that time, and made a number of recommendations for expanded neutral remedies.[6] The 2007 Study recommendations were based on review of barriers to NDOT prime contracts and subcontracts, interviews with business owners and others, and consideration of innovative approaches employed by similar agencies.

Keen Independent reviewed whether potential measures identified in the 2007 Study had been implemented by NDOT. This review concludes that NDOT has addressed most these initiatives. The following discussion is organized around the six areas of neutral program recommendations in the 2007 Study:

1. Business outreach and communications;
2. Technical assistance;
3. Financing, bonding and insurance assistance;
4. Contracting practices improvements;
5. Small business preferences; and
6. Data collection, tracking and reporting.

[6] The 2013 study team also conducted the 2007 NDOT Availability and Disparity Study.

1. Business outreach and communication. Figure 11-4, beginning on the following page, summarizes 2007 Study recommendations and subsequent NDOT actions concerning expanded business outreach and communications. The list is not comprehensive, but illustrates NDOT efforts to improve outreach and communications over the past six years.

As shown in Figure 11-4, NDOT has continued the neutral measures in place in 2007, and substantially expanded efforts to introduce and educate potential contractors and consultants about how they might do business with the agency. NDOT has also expanded information for new contractors and consultants on its website. For example, a calendar on the website provides a schedule of bid openings. NDOT has a page on its website where prime contractors and consultants can solicit bids from DBE subcontractors and suppliers. Potential bidders and subcontractors also learn about NDOT contract opportunities from subscription services such as Construction Notebook, Construction Update, BidSync, Dodge and Reed Construction Data.

DBEs now receive an NDOT newsletter with contracting and program information.

NDOT has also made efforts to better communicate with trade associations and other business groups in Nevada, and has instituted a Partnering program to foster communications for firms involved in a large project.

Additional neutral initiatives that could be reviewed and possibly quickly implemented include:

- Greater communication of contract awards. Although information is available on its website, NDOT might consider using Contractor Bulletins or similar means to quickly and easily communicate contract awards to interested parties. This was recommended in the 2013 in-depth interviews as well. (Additional neutral measures for outreach that NDOT might consider are shown in italics in Figure 11-4.)

- Expanding distribution of Contractor Bulletins. Some of the firms completing availability interviews as part of the 2013 Disparity Study were not currently subscribing to NDOT's Contractor Bulletins. NDOT could use the availability database to expand its subscribers list (similar to one recommendation in the 2007 Study that NDOT has yet to implement).

- Creating a small business advocate position. Creation of a small business liaison or advocate position was an initiative recommended by interviewees in the 2007 Study. This individual would be a visible advocate who would explain NDOT processes and encourage small business participation in NDOT work, as well as serve as a liaison to trade associations in Nevada. NDOT is considering creating this position.

Figure 11-4.
Current status of neutral measures recommended in 2007 NDOT Availability and Disparity

Recommendations for NDOT neutral remedies in 2007 Study	Current status *and additional recommendations*
1. Business outreach and communication	
Continue providing notice of NDOT contracting opportunities through multiple means.	NDOT continues to use its website, Contractor Bulletins and other sources to information firms about construction and engineering contracting opportunities.
Expand efforts to educate interested firms about where to find notices of contracting opportunities.	NDOT provides information on its website on how to identify contract opportunities, and also holds workshops on how to do business with NDOT. For example, NDOT has been holding "Where's the Contract?" workshops with companies interested in working with NDOT.
Use electronic media about how to do business with NDOT, including improving and expanding "Doing Business with NDOT" website materials.	The NDOT website now has comprehensive information about how to do business with NDOT. NDOT also emails Contractor Bulletins to subscribers and additional information to DBEs.
Expand notice of contract awards.	Website posts information about contract awards. *NDOT might consider including awards in Contractor Bulletins or other emailed document.*
Further develop communications channels with industry, and promote greater feedback.	Continues regular outreach to trade associations, professional groups and others. In 2007, started the NDOT/Industry Liaison Committee. Also developed the Partnering program to foster dialog and facilitate completion of large projects. And External Civil Rights staff receive and respond to complaints.
Expand outreach, networking and pre-bid conferences to create more opportunities for small businesses to meet other small businesses, and to meet prime contractors.	NDOT implemented DBE Empowerment Connection to introduce DBE subcontractors to prime contractors. Website has a page where prime contractors and consultants can solicit bids from DBE subcontractors and suppliers. NDOT conducts other outreach, including other pre-bid meetings and participation in trade association and chamber meetings.
Create Small Business Advocate or Liaison position.	*NDOT should consider.*
2. Technical assistance	
Continue to provide supportive services for small businesses/DBEs.	NDOT has recently entered into an agreement for a supportive services consultant to serve DBEs in Nevada. This program had lapsed.
Continue to partner with small business development centers and other training groups.	NDOT continues to refer DBEs to these assistance providers. NDOT also participated in developing a web-based central clearinghouse of available training in the state. See www.silverflume.gov.
Continue efforts such as Entrepreneurial Development Program (series of classes over two years for more advanced business owners).	Explore opportunities to re-start an advanced training program.
Conduct training workshops to assist small businesses and trade associations with utilizing emerging technology and conducting business through electronic media.	NDOT implemented E-bidding and conducted extensive training concerning online bidding. NDOT continues to have training tools on its website.
Further develop educational workshops on "doing business with NDOT."	NDOT has implemented, as discussed above.
Encourage trade associations to develop mentor-protégé programs to assist new small businesses in the transportation contracting industry	Substantial discussion at NDOT, but no new program implemented. *NDOT should work with AGC Nevada or other groups to develop a mentor-protégé program that can assist small businesses and DBEs.*

Recommendations for NDOT neutral remedies in 2007 Study	Current status *and additional recommendations*
3. Financing, bonding and insurance assistance	
Refer small businesses, including DBEs, to available financial assistance in Nevada.	Through training programs, NDOT has informed small businesses and DBEs about available financing assistance. NDOT has also tried to promote USDOT's Short Term Lending Program in Nevada.
Further investigate providing OCIP (Owner Controlled Insurance Policies) for its construction projects.	NDOT has discussed OCIP at high level. *It might further investigate opportunities to provide OCIP for construction projects.*
Implement a bonding assistance initiative to provide emerging contractors and other small businesses with improved means to satisfy requirements for larger projects.	Participated in Bonding Education Program in 2013. Held other seminars and training concerning bonding. Promoted the DBE ARRA Bonding Assistance Reimbursable Fee Program. DBEs performing on a transportation project receiving ARRA funding could receive bonding fee cost reimbursement. DBEs can also obtain a bond guarantee from the SBA Surety Bond Guarantee Program. The Bonding Education Program included training on how to participate in this program.
4. Contracting practices improvements	
Further segment and unbundle contracts. Encourage more opportunities for small contracts on specific types of construction contracts.	Continuing efforts to create small construction contracts, especially under $250,000. The State created authority for NDOT to use informal bids for construction contracts of that size. NDOT has a new Small Business Program where certain contracts can be set-aside for bidding by certified small businesses, including DBEs. NDOT also newly competing certain engineering work.
Encourage prime contractors to subcontract portions of work that they might otherwise perform themselves.	NDOT's Small Business Enterprise Program can accomplish this by setting a SBE goal, when appropriate, on contracts without a DBE goal. NDOT will also require steps to encourage small business participation on multi-year design-build or other large contracts. *NDOT might research the City of Los Angeles Minimum Subcontracting program.*
Simplify bidding process.	See Informal Bidding above. *NDOT might also consider a simplified proposal process for small engineering-related agreements.*
Reduce or relax bonding requirements (might require change in state law).	Not accomplished. *NDOT might seek State authorization to relax bonding requirements for certain small projects (under $250,000 or under $100,000).*
Improve enforcement of "prompt pay" rules, including prime contractor payment of subs.	NDOT currently has a policy of paying contractors within two weeks, which is considerably faster than similar agencies. NDOT also receives and investigates complaints of non-payment made by subcontractors. *NDOT could better ensure that payments for consultant services consistently meet this standard, as well as additional ways to communicate to subcontractors when NDOT has paid a prime contractor.*
Consider a program to encourage joint ventures between more experienced businesses and less experience companies.	NDOT's Small Business Program does not currently have a joint venture measure, which is one element suggested by 49 CFR Section 26.39 (which encouraged joint ventures made up of small businesses). *NDOT might further research opportunities for the initiative suggested in Section 26.39 or explore a way for small or newer firms to joint venture with larger, more experienced businesses.*
Improve communication about awards for both primes and subs.	Discussed under Business Outreach and Communications.
Implement additional Department-wide training for staff involved in contract awards or administration that would address climate for MBE/WBE bidders and proposers.	An Internal Stakeholder Group has participated in the 2013 Disparity Study, but broader education and training is needed. *NDOT might review disparity study results and other information with staff, and assign responsibilities within certain departments and divisions for creating a more welcoming climate for MBE/WBE and small business bidders and proposers.*
Provide additional tools to NDOT staff to assist small businesses.	Not done. *NDOT might develop a simple checksheet for staff that explains available NDOT small business and DBE programs and outside resources.*
Consider eliminating or modifying prequalification process for construction prime contractors.	Not done. *The State Legislature might consider changes to NRS 408.333. The State Contractors' Board or State Legislature might also consider changes to bid limit component of contractor licensing by the Board.*

Recommendations for NDOT neutral remedies in 2007 Study	Current status *and additional recommendations*
5. Small business preferences	
Consider a change in state law to revise the local preference to include newer or smaller firms.	Not done. *The State Legislature might consider revisions to local business preference to ensure that it does not disadvantage newer or smaller firms.*
Consider a change in state law that would encourage utilization of local small businesses for smaller construction contracts.	NDOT Small Business Program contains this program element.
Consider awarding evaluation points for small businesses competing for engineering contracts as prime consultants.	Not done. *NDOT might consider this change as an element in its Small Business Program.*
6. Data collection, tracking and reporting	
Implement systems to track utilization of self-reported MBEs and WBEs as well as certified DBEs.	NDOT will be working with B2GNow to develop new tracking system.
Expand tracking to include engineering-related contracts.	NDOT will be working with B2GNow to develop new tracking system.
Expand tracking to include smaller contracts and District contracts.	NDOT will be working with B2GNow to develop new tracking system.
Expand tracking to include contracts awarded by local agencies using LPA Program funds.	NDOT will be working with B2GNow to develop new tracking system.
Track payments to all firms (MBE/WBE and majority-owned), not just DBEs.	NDOT will be working with B2GNow to develop new tracking system.

2. Technical assistance. NDOT continues education and training efforts, including a new supportive services program (the program had lapsed prior to this year).

As discussed under "bonding," NDOT has also delivered specific training related to obtaining bonding and increasing the size of bonds received. Business owners who had participated in recent NDOT training had positive feedback and thought the training was helpful (see Appendix J).

Partnerships with other business assistance groups. Any discussion of neutral remedies should recognize the spectrum of other organizations offering small business assistance. As presented in Figure 11-5 at the end of this chapter, there is a wide network of basic business training available in Nevada. DBEs attend seminars held by the Nevada Chapter of the AGC, SCORE, small business development centers and others. As these opportunities are somewhat fragmented, NDOT might consider ways to better communicate all of these opportunities to small businesses and DBEs involved in the transportation contracting industry.

- If NDOT created a Small Business Advocate position, one of the responsibilities could be to better connect entrepreneurs, small businesses and DBEs to the training most appropriate for their stage of growth.

- NDOT has spearheaded efforts to develop a web-based central clearinghouse for business assistance. Some of the small business owners interviewed in the study were unaware of assistance opportunities. Other DBEs interviewed as part of this study urged NDOT to leave training to Small Business Development Centers and other groups that specialize in business assistance.

Mentor-protégé program. The 2007 Study suggested that NDOT encourage trade associations to develop mentor-protégé programs to assist new small businesses in the transportation contracting industry. The Nevada Chapter of the AGC had once operated a program, with success.

NDOT should review whether a mentor protégé program could be successfully re-started in Nevada, and possibly include truckers, suppliers and engineering-related firms. Many interviewees thought a mentor-protégé program would be very valuable as long as larger firms had responsibilities or incentives to serve as effective mentors (see Appendix J for comments). The USDOT Office of Small and Disadvantaged Business Utilization operates the Mentor-Protégé Pilot Program, which NDOT might research.

3. Financing, bonding and insurance assistance. Neutral initiatives to assist with financing, bonding and insurance were recommended in the 2007 Study.

Financing assistance. Individuals interviewed in the 2007 and in the 2013 Study identified assistance with business financing as a major opportunity to assist small businesses including MBE/WBEs. NDOT has continued to participate in seminars and other training about obtaining financing.

NDOT has been urging banks in Nevada to offer additional options for financing for DBEs in the state. No Nevada-based banks appear to be offering the program, although Umqua Bank in California reports to serve the Reno area. The potential program might be more useful to contractors if NDOT could obtain a waiver that would to allow loan pre-approval so that loans could immediately be in place upon contract award.

Insurance. Some interviewees in the 2013 Study indicated that they could not afford the high levels of insurance sometimes required for public sector construction and consulting work.

The 2007 Study suggested that NDOT further investigate providing Owner Controlled Insurance Policies (OCIP) for certain construction projects. NDOT has considered OCIP in recent years, and might further investigate whether OCIP might be beneficial for prime contractors, subcontractors and taxpayers.

Bonding. The 2007 study recommended that NDOT implement bonding assistance programs, and interviews with contractors in the 2013 found widespread interest in such assistance. Starting in 2013, NDOT has been very active in promoting training and assistance related to bonding.

- NDOT partnered and played a key role in bringing the Bonding Education Program to Las Vegas, a series of training sessions to assist small contractors with obtaining surety bonds and increasing their bonding capacity. One-on-one consultations were included in the program. The program was a partnership with USDOT and the Surety and Fidelity Association of America. It included five three-hour sessions, and attendance at each session was required for a firm to receive bonding assistance. Topics also included obtaining required insurance. Twenty firms participated in the Bonding Education Program. At the time of this report, two of those firms were in the process of receiving their first bond (one for $250,000 and one for $1 million).

- NDOT also promoted other SBA bonding programs.

4. Contracting practices improvements. The 2007 Study made a number of recommendations that might improve opportunities for small businesses to obtain NDOT as prime contractors or consultants (see Figure 11-4).

Segmenting and unbundling contracts. Unbundling projects to promote small business utilization is a part of NDOT's current operation of the Federal DBE Program.[7]

- The State of Nevada enacted NRS 408.367, which allows NDOT to use informal bids for highway construction, reconstruction, improvements and maintenance on projects estimated to cost no more than $250,000. NDOT has used this new authority to streamline the bidding process for its small construction contracts. As discussed in Chapter 8, NDOT has been successful in identifying small contracts, and increasing participation of minority- and women-owned prime contractors through the informal bidding procedures.

  NDOT plans to continue to use the informal bid process. It may try to expand its efforts to unbundle construction contracts so it can award more work through informal bidding.

- For many years, much of NDOT's engineering work went to firms already under contract for that work. According to NDOT senior staff, the organization is now trying to open up those contracts for competition. This provides an opportunity to unbundle consulting contracts and encourage involvement of small business prime consultants.

Encouraging additional subcontracting. Interviewees in the 2013 Study indicated that prime contractors try to keep more of the work, and subcontract less, during poor market conditions. NDOT now only has a *maximum* limit to the amount of work that can be subcontracted (49%, which NDOT might consider increasing).

Encouraging primes to subcontract out more of a project is one of the suggested strategies for fostering small business participation provided in 49 CFR Section 26.39.

One program to promote subcontracting is a mandatory subcontracting minimum (MSM) used by the City of Los Angeles. If the City sets a minimum subcontracting amount of 25 percent, for example, prime contractors need to subcontract at least that amount of work.

Simplified contracting practices. Some interviewees in the 2013 Study indicated that bidding on NDOT contracts was too daunting to consider, and others said that the process was so burdensome that the time and cost would not be worth the effort for a small business. Especially for smaller construction contracts and engineering assignments, NDOT could attempt to streamline the requirements for submitting a bid or proposal.

Modifying NDOT construction contractor prequalification. As Chapter 8 discusses, both the State Contractors' Board licensing process and NDOT's prequalifications process limit the size of

[7] See page 28 of the NDOT DBE Program Update June 2012.

construction contracts that a company can bid. NDOT should review what it might change to minimize the negative impact its prequalification has on small businesses, including MBE/WBEs. In concert with its informal bidding for contracts under $250,000, NDOT has modified prequalification for those contracts.

Any substantial changes to either the State Contractors' Board or NDOT processes may require action by the State Legislature. (See Chapter 8 for a detailed discussion.)

5. Small business preferences. There were three recommendations concerning small business preferences in the 2007 Study:

- Changes to the state law authorizing local preferences in bidding to ensure those preferences are available to local small businesses as well as large businesses. (This requires action by the State Legislature, as discussed in Chapter 8.)
- Set-asides, bid preferences or other actions that could encourage utilization of small businesses for smaller construction contracts. NDOT's new Small Business Program contains this program element.
- Evaluation points credited to small businesses competing for engineering contracts as prime consultants. NDOT might consider adding this neutral program element to its Small Business Program.

Interviewees in the 2013 Study were supportive of any new NDOT efforts to encourage small business utilization as prime contractors and consultants.

6. Data collection and tracking. The 2007 Study identified the need to improve the quality and comprehensiveness of NDOT's contract and subcontract data collection and analysis. Only small strides had have been made prior to the 2013 Study. NDOT plans to implement the B2GNow tracking system in 2013. As in the 2007 Study, Keen Independent recommends that tracking capture:

- All businesses, including DBEs, self-reported MBEs and WBEs, and majority-owned firms;
- All areas of subcontracting, including service providers, trucking and major suppliers;
- Engineering work and District contracts, not just large construction contracts; and
- LPA Program contracts awarded by local agencies.

Figure 11-5.
Examples of race- and gender-neutral programs that organizations in Nevada have in place

Type	Examples
Technical assistance	Technical assistance including small business training is widely available throughout Nevada. Programs primarily provide general information and assistance for business start-ups and growing businesses but also include industry-specific training. Examples range from general support providers such as SCORE to industry-specific training opportunities such as the Nevada Governor's Office of Economic Development Procurement Outreach Program. Other programs focus on market development assistance and use of electronic media and technology. These assistance programs are available through the Nevada Business Development Center and Procurement Technical Assistance Centers throughout the state. More locally-focused programs include the City of Reno My Quick Coach Program, and the Urban Chamber of Commerce Business Success Center.
Small business finance	Small business financing is available through several local agencies within Nevada. For example, the Small Business Development Centers in Carson City, Elko, Ely, Fallon, Hawthorne, Las Vegas, Laughlin, Pahrump, Reno and Winnemucca support start-ups by helping to identify financing needs and assisting with loan package preparation. The State of Nevada Small Business Credit Initiative also offers financing assistance in the way of entrepreneurial training, technical assistance and access to loans for new and expanding businesses throughout the state. Other local organizations including the Nevada Microenterprise Initiative and minority and regional chambers provide training and support on how to obtain financing and prepare funding documents.
Bonding programs	Programs such as the Small Business Association (SBA) Bond Guarantee Program provide bid, performance and payment bond guarantees for individual contracts. The Federal SBA program encourages surety companies to bond small businesses who are having difficulty obtaining bonding on their own. The USDOT Bond Education Program assists businesses in identifying what they need to do to become bond-ready, as well as facilitates one-on-one sessions with local surety bonding professionals to help in assembling the materials necessary for a complete bond application.
Business networking	Many organizations in Nevada offer networking opportunities for small businesses including minority- and women-owned businesses. Examples include the Nevada chapter of the Association of General Contractors, Nevada Contractor's Association, Nevada Society of Professional Engineers, Associated Builders and Contractors Nevada Chapter, Las Vegas Urban League, National Association of Women Business Owners, Hispanic Business Roundtable, local chambers of commerce, and minority and women business chambers.

Conclusions from analysis of neutral measures. Review of NDOT's implementation of race- and gender-neutral initiatives shows substantial efforts, including putting in place many of the remedies suggested in the 2007 Study.

It is difficult to project the combined effect of the NDOT's neutral programs. However, it is reasonable to conclude that:

- The neutral efforts are likely to increase the "neutral" participation of DBEs (that is, participation through means other than programs such as DBE contract goals); and
- It is unlikely that NDOT will achieve an overall DBE goal in the range of 6.98 percent solely through neutral programs already in place or that can be implemented in the near-term. Many of the neutral programs were in effect in FFY 2007 and FFY 2010 when NDOT reported 0.1 percent DBE participation in FHWA-funded contracts.

  Opening more prime contract opportunities to small businesses is important, especially for long-term growth and development of these contractors and consultants, but such work will be a small portion of total FHWA-funded contracts over a three-year horizon and will only have a small overall impact on the percentage utilization of DBEs.

Summary

Chapter 11 provides guidance to NDOT as it projects the portion of its overall DBE goal to be achieved through neutral means.

Should NDOT project that it can meet all of its overall DBE goal through neutral means?

NDOT will first need to consider whether it can achieve 100 percent of its overall DBE goal through neutral means. Such a determination depends in part on the level of the overall DBE goal. If its overall DBE goal is in the range of 6.98 percent, the evidence presented in this report indicates that NDOT might not meet its DBE goal solely through neutral means.

NDOT should consider all of the information in the report when reaching its decision on any use of race- and gender-conscious programs (such as DBE contract goals) in addition to neutral efforts, including that summarized below:

A. There is evidence of discrimination within the local transportation contracting marketplace for any racial, ethnic or gender groups.

B. The agency's past experience is that it has not met its overall DBE goal, even with race- and gender-conscious programs.

C. NDOT reports DBE participation of 0.1 percent in two recent fiscal years when it did not use race- or gender-conscious measures. Overall participation in years that it operated an entirely neutral program was around 1 percent.

D. NDOT has extensive neutral measures in place. However, even with the combination of race- and gender-neutral remedies and DBE contract goals, there were still disparities in overall MBE/WBE utilization on NDOT contracts.

If NDOT uses a combination of neutral means and DBE contract goals, how much of the overall DBE goal can NDOT project to be met through neutral means? NDOT faces two challenges when determining how much participation of certified DBEs it can achieve through neutral means:

1. Quantifying the impact of its neutral measures on small businesses, and then on DBEs; and

2. Determining whether it can encourage MBEs and WBEs that are eligible for DBE certification to apply for certification (otherwise their participation will not be counted as DBEs).

Counting only firms certified as DBEs at the time, NDOT achieved about 1 percent DBE participation through neutral means.

However, if NDOT had been able to count all potential DBEs (combining certified firms and MBE/WBEs that appeared to be eligible for DBE certification), the estimate of DBE participation through neutral means would be 4.6 percent. Just counting Nevada Barricade, a company that became DBE-certified in 2013, the corresponding figure would be about 3 percent.

NDOT might consider at least 3 percent as its projection of the portion of its goal to be achieved through neutral means. It would then need to track its success in encouraging potential DBEs to apply for certification.

To the extent NDOT is not completely successful in encouraging DBE certification among firms benefiting from the neutral programs, some of its projection for neutral means will not be realized. NDOT would need to note this factor in its DBE participation reports to FHWA for FFYs 2014, 2015 and 2016. NDOT should design its future tracking systems to capture utilization of non-DBE-certified MBEs and WBEs as well as certified DBEs.

The discussion above is only a brief summary of wide-ranging quantitative and qualitative information in this report. NDOT should consider the full report and other information it may have when projecting the portion of its overall DBE goal to be achieved through neutral means.

CHAPTER 12.
NDOT's Implementation of the Federal DBE Program

Chapter 12 reviews information relevant to NDOT's implementation of specific components of the Federal DBE Program for USDOT-funded contracts. Chapter 12 also includes a discussion of program measures for state-funded contracts. Regulations presented in 49 CFR Part 26 and associated documents offer state and local agencies guidance related to implementing the Federal DBE Program. Key requirements of the program are described below in the order that they are presented in 49 CFR Part 26.[1]

In addition, NDOT will find it helpful to review sample DBE programs development by USDOT.[2]

Reporting to DOT — 49 CFR Part 26.11 (b)

NDOT must periodically report DBE participation in its transportation-related construction and engineering contracts to FHWA. Keen Independent's review of NDOT's contracting data indicated that the agency typically requires prime contractors to submit information detailing the utilization of DBEs at the end of each FHWA-funded construction project. NDOT should consider continuing to do so and expanding its reporting process to also capture information about other NDOT transportation contracts, including engineering-related contracts, District contracts and state-funded contracts. In addition, NDOT should develop systems and train local agencies to capture complete information about DBE participation on LPA Program contracts.

Bidders List — 49 CFR Part 26.11 (c)

As part of its implementation of the Federal DBE Program, NDOT must develop a bidders list of businesses that are available for its transportation contracts. The bidders list must include the following information about each available business:

- Name;
- Address;
- DBE status;
- Type of work performed;
- Age of business; and
- Annual gross receipts (within a selected range).

NDOT should develop a bidders list that includes all of the above information. This information should integrate into NDOT's future utilization tracking systems. As such, additional information

[1] Because only certain portions of the Federal DBE Program are discussed in Chapter 12, NDOT should refer to the complete federal regulations when considering its implementation of the program.

[2] Such as the sample program updated June 25, 2013 http://www.dot.gov/osdbu/disadvantaged-business-enterprise/49-cfr-part-26-sample-disadvantaged-business

including race, ethnicity and gender ownership of firms, regardless of DBE status, should be identified.

NDOT should:

- Collect and update this information for firms seeking NDOT prime contracts and subcontracts, perhaps through means such as the 2013 availability interviews;
- Require construction prime contractors to submit complete information for all subcontractors (including service providers), truckers and major suppliers at time of contract award;
- Require prime consultants to submit complete information for all subconsultants at time of agreement approval or task order award (using the most practicable method for that type of consulting work); and
- Require updates to the information at time of invoicing for all firms at all tiers involved in the work pertaining to that invoice.

These requirements should pertain to information concerning all firms in an NDOT transportation contract, not just DBEs.

Use of 2013 availability interview information. Availability interviews that the study team conducted as part of the disparity study collected information about local businesses that are potentially available for different types of NDOT construction and engineering prime contracts and subcontracts. NDOT should consider using the availability interview database to supplement its current bidders list.

Further dissemination of information concerning bid and proposal awards. NDOT might consider more efforts to publicize post-award bidder/proposer information on its website and through Contractor Bulletins or similar means. In-depth interviews indicated that such a system would be helpful to prime contractors and consultants in addition to subcontractors participating in those bids.

Maintaining comprehensive vendor data. In order to effectively track the utilization of MBE/WBEs on transportation contracts, NDOT should improve the information that it collects on the ownership status of utilized businesses, including prime contractors, subcontractors, trucking companies and suppliers. NDOT should collect information on the race, ethnicity and gender of business owners, regardless of certification status.

The B2GNow tracking system that NDOT will be implementing will facilitate collection and maintenance of this information.

Prompt Payment Mechanisms — 49 CFR Part 26.29

NDOT policies concerning payment of prime contractors appear to comply with Nevada state law and with federal regulations in 49 CFR Part 26.29. NDOT is required to pay prime contractors for approved invoices within 15 days. Prime contractors are then required to pay subcontractors for

satisfactory work no later than 15 days after receipt of each progress payment, and return retainage payments to each subcontractor within 15 days after the subcontractor's work is satisfactorily completed. In 2012, FHWA notified NDOT that it was not in compliance with the prompt payment clauses in Title 49, per minutes of Nevada DOT Board of Directors Construction Working Group Meeting August 24, 2012. Information available indicates that NDOT is now in compliance.

In-depth anecdotal interviews with business owners and managers indicated satisfaction with NDOT payment and retainage, except for the following:

- One interviewee said the timely payment on change orders on State contracts is a problem. He said that payment on changes orders can sometimes take months to be resolved.
- There were some complaints from engineering-related firms that NDOT staff sit on invoices and delay payment. "A lot of it depends on who the project manager is," according to one interviewee.
- Some interviewees reported that subcontractors (especially second-tier subcontractors) face long delays in payment on NDOT contracts.

In addition, it is unclear whether local agencies follow prompt payment policies on FHWA-funded LPA Program contracts.

NDOT might consider implementing a broader compliance audit to ensure that NDOT divisions, local agencies, and prime contractors follow its prompt payment policies, particularly as they relate to the requirement that prime contractors promptly pay subcontractors. More extensive compliance review and more communication about NDOT's policies to the contracting community might also be beneficial.

DBE Directory — 49 CFR Part 26.31

The NDOT Civil Rights Program currently maintains a Certified DBE Vendors List on its website.[3]

The DBE database is searchable by business name, business description, vendor number, contact person, city, state, zip code, phone, email, website, and NAICS code. Utilizing that database could help bidders locate qualified DBEs. Through a form on this site, companies can apply for a prime contractor's account with Nevada DBE. These prime contractors can then post bidding opportunities which are then listed on the NDOT Civil Rights Program website.[4]

Comments from interviewees included frustration at the difficulty in finding specific types of subcontractors on this list. One interviewee wanted NDOT to create a DBE list specific to individual projects. Another interviewee said that the list should also be displayed according to type of work (without having to sort the list to obtain this information).

NDOT might explore both of these ideas.

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[3] http://www.nevadadbe.com/dbe-vendors.

[4] http://nevadadbe.com/bidding-opportunities.

Overconcentration — 49 CFR Part 26.33

Agencies implementing the Federal DBE Program are required to report and take corrective measures if they find that DBEs are so overconcentrated in certain work areas as to unduly burden non-DBEs working in those areas. Keen Independent investigated potential overconcentration on NDOT contracts. There were three notable subindustries in which certified DBEs accounted for 50 percent or more of total subcontract dollars (work going to DBEs and non-DBEs) for 2011 through June 2012:

- Trucking;
- Erosion control; and
- Materials testing.

Because the above figures are based only on subcontract dollars, they do not include work that prime contractors self-performed in those areas. If the study team had included self-performed work in those analyses, the percentages for which DBEs accounted would likely have decreased. As discussed in Chapter 8, there is other information to indicate that non-DBEs were not unduly burdened by DBE participation in these areas. Even so, NDOT should closely monitor DBE participation in these and other fields.

If NDOT were to take immediate action, it might be to change credit given for DBE truckers so that the goal credit will only be received for each truck the DBE owns or leases. If that DBE needs to lease additional trucks to perform the contract, he or she must lease the trucks from another certified DBE in order for the prime to receive goal credit for the additional trucks. Any trucks leased by a DBE that are not owned by a DBE-certified trucker will not be counted toward the DBE goal. This change might decrease the incentive for a prime contractor to always use a DBE trucker to help it meet a DBE contract goal and reduce the potential for undue burdens on non-DBEs in this field. (Further action might be required if this change does not have the desired effect.)

If overconcentration persists in other fields, NDOT might consider limiting the amount of a DBE contract goal that can be met from a particular type of work (or combined work types), or designating a portion of its FHWA-funded contracts for which none of the DBE contract goal could be met from those types of work with potential overconcentration. NDOT would need to seek FHWA approval for any of the above actions concerning potential overconcentration, in accordance with 26.33(d).

Business Development Programs — 49 CFR Part 26.35 and Mentor-protégé Programs – 49 CFR Appendix D to Part 26

Business development programs (BDPs) are programs that are designed to assist DBE-certified businesses in developing the capabilities to compete for work independent of the DBE Program.

NDOT participates in a number of training programs that assist DBEs in these areas. Some of the DBEs interviewed in the disparity study had favorable comments about past NDOT training. NDOT should continue specialized training, such as the Bonding Education Program, and serve as a referral source to training and technical assistance offered by other organizations in Nevada. NDOT

might spearhead efforts to compile an easily-accessible directory or website that can direct DBEs and other small businesses to available services.

As part of a BDP, or separately, agencies may establish a mentor-protégé program, in which a non-DBE or another DBE serves as a mentor and principle source of business development assistance to a protégé DBE. NDOT does not currently offer any mentor-protégé programs for DBEs. NDOT should consider re-starting the mentor-protégé program once operated by Nevada AGC if it can develop requirements or incentives for potential mentors to participate in the program.

Depending on NDOT's review of these types of programs, it might consider adding a Business Development Program component to its Plan.

Responsibilities for Monitoring the Performance of Other Program Participants — 49 CFR Part 26.37

The Final Rule effective February 28, 2011 revised requirements for monitoring and enforcing that the work that prime contractors commit to DBE subcontractors at contract award (or through contract modifications) is actually performed by those DBEs. USDOT describes the requirements in 49 CFR Part 26.37(b). The Final Rule states that prime contractors can only terminate DBEs for "good cause" and with written consent from the awarding agency. NDOT reported that it has a mechanism in place to regularly verify that prime contractors actually utilize DBEs to the degree to which they committed to doing so at contract award. NDOT maintains a database to monitor contracts obtained by DBE firms, regardless of whether the DBE participation was race-neutral or race-conscious. NDOT reports DBE participation semi-annually to USDOT as directed.

Regarding monitoring the performance of DBEs, NDOT regulations state that the work DBEs complete must fulfill commercially useful functions (CUFs) in order to count towards DBE goals. The Certified Acceptance Agency must conduct an on-site review for every utilized DBE subcontractor, regardless of whether its utilization is counting toward a specific DBE goal, to ensure that the DBE is fulfilling a CUF. NDOT should consider carefully reviewing the requirements set forth in 49 CFR Part 26.37(b) and in the Final Rule to ensure that its monitoring and enforcement mechanisms are consistent with federal regulations.

Fostering Small Business Participation — 49 CFR Part 26.39

When implementing the Federal DBE Program, NDOT must include a measure to structure contracting requirements to facilitate competition by small businesses, "taking all reasonable steps to eliminate obstacles to their participation, including unnecessary and unjustified bundling of contract requirements that may preclude small business participation in procurements as prime contractors or subcontractors."[5] The Final Rule effective February 28, 2011 added a requirement for transportation agencies to foster small business participation in their contracting. It required agencies to submit a plan for fostering small business participation to USDOT in early 2012. NDOT submitted a small business participation plan to USDOT, which was approved.

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[5] 49 CFR Part 26.39(a).

Unbundling contracts. As presented in Chapter 8 and Appendix J, business owners identified the size of contracts as a substantial barrier to small business participation in public sector contracts. Interviewees urged NDOT to further unbundle contracts and create smaller contract opportunities. As demonstrated in Chapter 8, MBE/WBEs received about one-quarter of the dollars on small construction contracts awarded through informal bidding.

Contracting opportunities on engineering contracts. Some business owners and trade association representatives indicated a lack of opportunities for engineering-related work at NDOT. Much of the consulting work goes to firms that already have NDOT contracts. They also report that, if they could just get in front of NDOT staff, they would have a better chance to obtain work (for details, see Chapter 8 and Appendix J). NDOT is in the process of putting more new engineering consulting work out for competition. NDOT engineering staff should reach out to DBEs and other small businesses to discuss future work opportunities, how they might participate as a prime consultant or subconsultant, and details concerning consultant prequalification, qualifications statement, proposal and interview processes. NDOT might also investigate creating an informal proposal process similar to Construction's informal bidding system.

Additional strategies. USDOT also identifies the following potential strategies for fostering small business participation:

- Establishing a race- and gender-neutral small business set-aside for prime contracts under a stated amount (e.g., $1 million).
- For multi-year design-build contracts or other large contracts (e.g., "megaprojects"), requiring bidders on the prime contract to specify elements of the contract — or provide subcontracting opportunities — that are of a size that small businesses, including DBEs, can reasonably perform.
- On prime contracts that do not include DBE contract goals, requiring the prime contractor to provide subcontracting opportunities of a size that small businesses, including DBEs, can reasonably perform.
- Identifying alternative acquisition strategies and structuring procurements to facilitate the ability of consortia or joint ventures consisting of small businesses, including DBEs, to compete for and perform prime contracts.
- Ensuring that a reasonable number of prime contracts are of a size that small businesses, including DBEs, can reasonably perform.

Chapter 11 of the report outlines many of NDOT's current and planned race- and gender-neutral measures and provides examples of neutral measures that other organizations in Nevada have implemented. NDOT should review that information and consider implementing measures that the agency deems would be effective. NDOT should also review legal and budgetary issues in considering different measures.

Prohibition of DBE Quotas and Prohibition of Set-asides for DBEs Unless in Limited and Extreme Circumstances — 49 CFR Part 26.43

DBE quotas are prohibited under the Federal DBE Program. DBE set-asides are only to be used in extreme circumstances.

The Federal DBE Program requires the implementation of a small business program for small businesses that are bidding or proposing as prime contractors.

NDOT does not use quotas in any way in its administration of the Federal DBE Program.

Setting Overall Annual DBE Goals — 49 CFR Part 26.45

In the Final Rule effective February 28, 2011, USDOT changed how often agencies that implement the Federal DBE Program are required to submit overall annual DBE goals. Agencies such as NDOT now need to develop and submit overall annual DBE goals every three years. That change was effective as of March 5, 2010. Chapter 10 provides NDOT with information that pertains to overall annual DBE goal.

Analysis of Reasons for not Meeting Overall DBE Goal — 49 CFR Part 26.47(c)

Another addition to the Federal DBE Program made under the Final Rule effective February 28, 2011 requires agencies to take the following actions if their DBE participation for a particular fiscal year is less than their overall goals for that year:

- Analyze in detail the reasons for the difference; and
- Establish specific steps and milestones to address the difference and enable the agency to meet the goal in the next fiscal year.

Need for separate accounting for participation of potential DBEs. In accordance with guidance in the Federal DBE Program, Keen Independent's analysis of the overall DBE goal in this study is based on DBEs that are currently certified and on MBE/WBEs that could *potentially* be DBE-certified (i.e., potential DBEs). One of the reasons that NDOT has not met its overall DBE goal in past years, and might not meet it in the future, is that its measurement of DBE participation only includes businesses that are DBE-certified. Non-DBE-certified MBE/WBEs that were utilized on NDOT work during the study period or that are potentially available for NDOT work are counted when determining the overall DBE goal but are not counted in NDOT's participation reports that are used to measure whether NDOT has met the overall DBE goal.

Based on verbal communication with USDOT in Washington, D.C. in 2011, agencies can explore whether one reason why they have not met their overall DBE goal is because they are not counting the participation of uncertified MBE/WBEs that could be DBE-certified. USDOT might then expect an agency to explore ways to further encourage potential DBEs to become DBE-certified as one way of closing the gap between reported DBE participation and its overall DBE goal. In order to have the information to explore that possibility, NDOT should consider:

- Developing a system to collect information on the race/ethnicity and gender of the owners of all businesses — not just certified DBEs — participating as prime contractors or subcontractors, for both NDOT and LPA Program contracts;
- Developing internal participation reports for MBEs and WBEs (by race/ethnicity and gender) and for businesses currently and potentially DBE-certified (based on race/ethnicity and gender of ownership; annual revenue; and other factors such as whether the business has been denied DBE certification in the past), for both NDOT and LPA Program contracts; and
- Continuing to track participation of certified DBEs on FHWA-funded NDOT and LPA Program contracts, per USDOT reporting requirements.

Other steps to evaluate how NDOT might better meet the overall annual goal. Analyzing the utilization of non-DBE-certified MBE/WBEs that could be certified is one step among many that NDOT might consider taking when examining any differences between DBE utilization and its overall annual DBE goal. Based on its comprehensive review, NDOT must establish specific steps and milestones to correct the problems it identifies in its analysis and to enable it to better meet its overall DBE goal in the future, per 49 CFR Part 26.47(c)(2).

Maximum Feasible Portion of Goal Met through Neutral Programs — 49 CFR Part 26.51(a)

As discussed in Chapter 11, NDOT must meet the maximum feasible portion of its overall annual DBE goal through the use of race- and gender-neutral means of facilitating DBE participation. NDOT must project the portion of its overall annual DBE goal that could be achieved through such means. The agency should consider the information and analytical approaches presented in Chapter 11 when making such projections.

Use of DBE Contract Goals— 49 CFR Part 26.51(d)

The Federal DBE Program requires agencies to establish contract goals to meet any portion of their overall DBE goals that they do not project being able to meet using race- and gender-neutral means, as noted in 49 CFR Part 26.51(d). NDOT should assess whether the use of DBE contract goals is necessary to meet any portion of its overall annual DBE goal, based on information from the disparity study and other available information.

USDOT guidance on DBE contract goals. USDOT guidelines on the use of DBE contract goals, which are presented in 49 CFR Part 26.51(e), include the following guidance:

- Contract goals may only be used on contracts that have subcontracting possibilities;
- Agencies are not required to set a contract goal on every FHWA-funded contract;
- Over the period covered by the overall DBE goal, an agency must set contract goals so that they will cumulatively result in meeting the portion of the overall goal that the agency projects being unable to meet through race- and gender-neutral means;
- An agency's contract goals must provide for participation by all DBE groups eligible for race- and gender-conscious measures and must not be subdivided into group-specific goals; and
- An agency must maintain and report data on DBE utilization separately for contracts that include and that do not include DBE goals.

If NDOT determines that it needs to continue the use of DBE contract goals, then it should also evaluate which DBE groups should be considered eligible to participate in any goals that may apply to FHWA-funded contracts (or other USDOT-funded contracts). If NDOT decides to include specific DBE groups (e.g., groups classified as "underutilized DBEs") but not other groups in a contract goals program, it must submit a waiver request to FHWA.

Reported abuse of the DBE contract goals program. In-depth interviews with owners and managers of MBE/WBEs and majority-owned companies, as well as information from trade associations, indicated frequent abuse of DBE contract goals programs in Nevada. This includes NDOT's program as well as similar programs operated by other agencies.

- Some individuals participating in in-depth interviews indicated that prime contractors devote time and energy to documenting that they have made good faith efforts to contact DBEs for subcontracting opportunities, but very little effort actually trying to ensure DBE participation on a contract. One interviewee referred to prime contractors' good faith efforts as "lip service."

- Some prime contractors explained that if they try to meet a DBE contract goal, which might raise their costs, they are at a disadvantage competing against another prime contractor that has no intention of meeting a goal and will only show good faith efforts.

- Other interviewees said that the DBE contract goals program was being abused through improper use of DBE trucking firms. Several interviewees said that prime contractors overuse trucking to meet goals and that you see DBEs that have a few trucks registered show up with eight or fifteen trucks on a job.

- Several interviewees said that use of DBE suppliers is abused. They reported that DBE goals create an artificial market for a company that does not actually provide any useful service and just acts as a pass-through.

- Several prime contractors said that it was difficult to find DBEs for certain types of work. They indicated that this made it hard to meet a high DBE goal on a contract. Several interviewees said that they resented that prime contractors were using DBEs from out of state to meet the goals.

- One interviewee said that she has heard of DBEs telling primes to go ahead and do the work that the DBE was intended to do, and that the DBE would bill them for it so the prime would get credit.

- One interviewee said that prime contractors will name a DBE as a subcontractor, but then abuse the subcontractor prior to executing the subcontract to the point that the subcontractor bows out of the contract. The prime contractor can then self-perform the work or use the subcontractor they want. He said that NDOT too easily approves substitutions on contracts and that it is complicit in the "theft" of work from DBEs. Another interviewee said that prime consultants do the same thing to her firm, squeezing her work to a point that she won't be able to complete the work to be done.

- Some interviewees said that prime contractors would list DBEs on contracts, but then they would never get any work.

Operation of DBE contract goals program for engineering-related contracts. Some representatives of engineering firms said that they did not know much about DBE contract goals since they are never set on NDOT engineering contracts. Others said that NDOT engineering staff members were not knowledgeable about how to include DBE participation on NDOT contracts. Some interviewees said that DBE contract goals were against the engineering code of ethics, and that work should go to the most competent firms. In sum, there appeared to be a lack of knowledge and experience, or outright resistance, to incorporation of the Federal DBE Program into NDOT consulting work.

NDOT might review such concerns further when evaluating ways to improve its current operation of the Federal DBE Program.

Flexible Use of any Race- and Gender-conscious Measures — 49 CFR Part 26.51(f)

State and local agencies must exercise flexibility in any use of race- and gender-conscious measures such as DBE contract goals. For example, if NDOT determines that its DBE utilization is exceeding its overall DBE goal in a particular fiscal year, it must reduce its use of DBE contract goals to the extent necessary. If it determines that it will fall short of the overall DBE goal in a particular fiscal year, then it must make appropriate modifications in the use of race- and gender-neutral and race- and gender-conscious measures to allow it to meet the overall goal.

Good Faith Effort Procedures — 49 CFR Part 26.53

USDOT has provided guidance for agencies to review good faith efforts, including materials in Appendix A of 49 CFR Part 26. NDOT's current implementation of the Federal DBE Program outlines the good faith efforts process that it uses for DBE contract goals. The Final Rule effective February 28, 2011 updated requirements for good faith efforts when agencies use DBE contract goals.

Use of good faith efforts. When federally-funded contracts have a DBE Program goal greater than 0 percent, prime contractors are required to submit the DBE commitment form (052-050) at the time of bid submittal. This form must list all of the certified DBE firms that will participate on the contract. Each DBE must submit on the DBE firm's letterhead a written confirmation letter stating they will perform the work listed for the amount listed.

A prime contractor who cannot meet the DBE goal assigned to the contract must provide Good Faith Effort (GFE) documents describing the efforts they made to meet the DBE goal. These forms must be submitted by 5:00 pm on the next working day after bid opening. The GFE documents will be evaluated by a NDOT External Civil Rights staff member, who will either accept or reject the bidder's explanation. The details are spelled out in the NDOT Disadvantaged Business Enterprise Program.

Counting DBE and MBE/WBE Participation — 49 CFR Part 26.55

Section 26.55 of 49 CFR describes how agencies should count DBE participation and evaluate whether bidders have met DBE contract goals. Federal regulations also give specific guidance for counting the participation of different types of DBE suppliers and trucking companies. Section 26.11 discusses the Uniform Report of DBE Awards or Commitments and Payments.

Potential abuse of trucking and suppliers in meeting contract goals. Chapter 8 indicated that about 40 percent of the use of DBEs on NDOT and LPA Program contracts from 2011 through June 2012 was as truckers. As explained elsewhere in Chapter 12, in-depth interviews with individuals knowledgeable about the industry indicated abuse of how DBE trucking firms and suppliers were counted toward DBE contract goals.

- NDOT may need to explore changes to how it credits work by DBE truckers, perhaps eliminating or further limiting use of leased or borrowed trucks. (See 49 CFR 26.55 (4) and (5).)

- NDOT might also further explore whether certain suppliers are actually regular dealers rather than brokers. (See 49 CFR 26.55(e).)

Ongoing data collection, tracking, analysis and reporting. As discussed above, Keen Independent recommends that NDOT should consider developing procedures and databases to consistently track participation of all firms, including MBE/WBEs and potential DBEs, in FHWA- and state-funded contracts that NDOT and local agencies award. Such measures will help NDOT track the effectiveness of race- and gender-neutral programs in encouraging MBE/WBE/DBE participation. If applicable, NDOT should also consider collecting important information regarding any shortfalls

in annual DBE participation, including preparing utilization reports for all MBE/WBEs (not just those that are DBE-certified).[6]

NDOT should work with B2GNow to establish comprehensive information collection, entry and tracking procedures for NDOT and LPA Program contracts and agreements, including ongoing contracts. This must not be limited to large construction contracts, but should capture District construction contracts and engineering agreements as well.

DBE certification — 49 CFR Part 26 Subpart D

NDOT is one certifying agency in Nevada. It has designed its DBE certification process to comply with 49 CFR Part 26 Subpart D.

Interviewees had a variety of opinions on the ease of becoming DBE-certified through NDOT.

- A number of interviewees said that the DBE certification process was reasonable and some reported that it was relatively easy.
- Many interviewees reported difficulties with the DBE certification process. Some interviewees reported that the process was so difficult as to be detrimental to legitimate DBEs. A few interviewees reported extreme dissatisfaction with their experiences attempting to be DBE certified with NDOT.
- A few interviewees said that they knew of front companies. They often reported that husbands and wives, siblings or other family members would set up a business where a male would control the business but it would be set up as a woman-owned company. One interviewee complained about companies that would have 51 percent minority ownership and 49 percent ownership from a wealthy non-minority.
- Other interviewees said it was not worth the effort to become certified, or that there would be a negative stigma to DBE certification.

Appendix J provides perceptions of business owners that have considered DBE certification or that have gone through the certification process, as well as those who reported existence of front companies and that the certification process had been abused.

NDOT might consider more effectively communicating information about the Federal DBE Program, particularly information about the benefits of DBE certification. Although NDOT appears to follow federal regulations concerning DBE certification, which requires collecting and reviewing considerable information from program applicants, the agency might research other ways to make the certification process easier for potential DBEs.

Even so, the potential abuse of DBE certification by front companies requires substantial research into actual control of an applicant business.

[6] Including self-identified MBE/WBEs.

Monitoring Changes to the Federal DBE Program

Federal regulations related to the Federal DBE Program change periodically, and USDOT also issues new guidance concerning implementation of the program. NDOT should continue to monitor such developments. Other transportation agencies' implementation of the Federal DBE Program is under review in federal district courts. NDOT should continue to monitor court decisions in those and other relevant cases.

NDOT's State-funded Contracts

In 2013, the State of Nevada authorized NDOT to operate a DBE Program for its state-funded contracts. Improvements to NDOT's implementation of the Federal DBE Program should also be incorporated into NDOT's operation of the program for state-funded contracts.

APPENDIX A.
Definition of Terms

Appendix A provides explanations and definitions useful to understanding the NDOT disparity study report. The following definitions are only relevant in the context of this report.

Anecdotal evidence. Anecdotal evidence includes personal accounts and perceptions of incidents — including any incidents of discrimination — told from each individual interviewee's or participant's perspective.

Availability analysis. The availability analysis examines the number of minority-, women-owned and majority-owned businesses ready, willing, and able to perform transportation-related construction and engineering work for NDOT or local agencies in Nevada.

"Availability" is often expressed as the percentage of contract dollars that might be expected to go to minority- or women-owned firms if based on analysis of the specific type, location, size and timing of each NDOT prime contract and subcontract and the relative number of minority- and women-owned firms available for that work.

Business. A business is a for-profit company, including all of its establishments (synonymous with "firm").

Business listing. A business listing is a record in the Dun & Bradstreet database (or other database) of business information. A Dun & Bradstreet record is just a "listing" until the study team determines it to actually be a business establishment with a working phone number.

Business establishment. A business establishment (or simply, "establishment") is a place of business with an address and working phone number. One business can have many business establishments.

Contract. A contract is a legally binding relationship between the seller of goods or services and a buyer.

Contract element. A contract element is either a prime contract or subcontract that the study team included in its analyses.

Contractor. A contractor is a business performing construction contracts.

Controlled. Control means exercising management and executive authority for a company.

Disadvantaged Business Enterprise (DBE). A small business 51 percent or more owned and controlled by one or more individuals who are both socially and economically disadvantaged according to the guidelines in the Federal DBE Program (49 CFR Part 26). Membership in certain race and ethnic groups identified under "minority-owned business enterprise" in this appendix may meet the presumption of socially and economically disadvantaged. Women are also presumed to be socially and economically disadvantaged. Examination of economic disadvantage also includes

investigating the three-year average gross revenues and the business owner's personal net worth (maximum of $1.32 million excluding equity in a home and in the business).

Some minority- and women-owned businesses do not qualify as DBEs because of gross revenue or net worth requirements.

A business owned by a non-minority male can be certified as a DBE if the enterprise meets the requirements in 49 CFR Part 26.

Disparity. A disparity is a difference or gap between an actual outcome and a reference point or benchmark. For example, a difference between an outcome for one racial/ethnic group and an outcome for non-Hispanic whites may constitute a disparity.

Disparity analysis. A disparity analysis compares actual outcomes with what might be expected based on other data. Analysis of whether there is a "disparity" between the utilization and availability of minority- and women-owned businesses is one tool in examining whether there is evidence consistent with discrimination against such businesses.

Disparity index. A disparity index is computed by dividing percent utilization by percent availability and then multiplying the result by 100. A disparity index of 100 indicates "parity." Smaller disparity indices indicate larger disparities.

Dun & Bradstreet (D&B). D&B is the leading global provider of lists of business establishments and other business information (see www.dnb.com). Hoover's is the D&B company that provides these lists.

Employer firms. Employer firms are firms with paid employees other than the business owner and family members.

Enterprise. An enterprise is an economic unit that could be a for-profit business or business establishment; not-for-profit organization; or public sector organization.

Establishment. See "business establishment."

Federal Aviation Administration (FAA). The FAA is an agency of the United States Department of Transportation that administers federal funding to support all aspects of civil aviation in the United States including airports and air traffic control centers.

Federal Disadvantaged Business Enterprise (DBE) Program. Federal DBE Program refers to the Disadvantaged Business Enterprise program established by the United States Department of Transportation after enactment of the Transportation Equity Act for the 21st Century (TEA-21) as amended in 1998. The regulations for the Federal DBE Program are set forth in 49 CFR Part 26.

Federal Highway Administration (FHWA). The FHWA is an agency of the United States Department of Transportation that works with state and local governments to construct, preserve, and improve the National Highway System, other roads eligible for federal aid, and certain roads on federal and tribal lands.

Federal Transit Administration (FTA). The FTA is an agency of the United States Department of Transportation that administers federal funding to support local public transportation systems including buses, subways, light rail, passenger ferry boats, and other forms of transportation.

Firm. See "business."

Federally-funded contract. A federally-funded contract is any contract or project funded in whole or in part (a dollar or more) with United States Department of Transportation financial assistance, including loans. As used in this study, it is synonymous with "USDOT-funded contract."

Industry. An industry is a broad classification for businesses providing related goods or services.

Local agency. A local agency is any city, county, regional transportation commission or other local government receiving money through NDOT.

Majority-owned business. A majority-owned business is a for-profit business that is not owned and controlled by minorities or women (see definition of "minorities" below).

MBE. See minority-owned business.

Minorities. Minorities are individuals who belong to one of the racial/ethnic groups identified in the federal regulations in 49 CFR Section 26.5:

Black Americans (or "African Americans" in this study), which include persons having origins in any of the black racial groups of Africa;

Hispanic Americans, which include persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;

Native Americans, which include persons who are American Indians, Eskimos, Aleuts or Native Hawaiians;

Asian-Pacific Americans, which include persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, Hong Kong, and other countries and territories in the Pacific set forth in 49 CFR Section 26.5; and

Subcontinent Asian Americans, which include persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka.

Minority-owned business (MBE). An MBE is a business with at least 51 percent ownership and control by minorities. Minority groups in this study are those listed in 49 CFR Section 26.5. For purposes of this study, a business need not be certified as such to be counted as a minority-owned business. Businesses owned by minority women are also counted as MBEs in this study (where that information is available).

North American Industry Classification System (NAICS) codes. NAICS codes identify the primary line of business of a business enterprise. See http://www.census.gov/epcd/www/naics.html.

Non-DBEs. Non-DBEs are firms that are not certified as DBEs, regardless of the race/ethnicity or gender of the owner.

Non-response bias. Non-response bias occurs when the observed responses to a survey question differ from what would have been obtained if all individuals in a population, including non-respondents, had answered the question.

Owned. Owned indicates at least 51 percent ownership of a company. For example, a "minority-owned" business is at least 51 percent owned by one or more minorities.

Potential DBE. A potential DBE is a minority- or woman-owned business that is DBE-certified or appears that it could be DBE-certified (regardless of actual DBE certification) based on revenue requirements specified as part of the Federal DBE Program.

Prime consultant. A prime consultant is a professional services firm that performed a prime contract for an end user, such as NDOT.

Prime contract. A prime contract is a contract between a prime contractor or a prime consultant and the end user, such as NDOT.

Prime contractor. A prime contractor is a construction firm that performs a prime contract for an end user, such as NDOT.

Project. A project refers to an NDOT or local agency transportation construction and/or engineering endeavor. A project could include one or multiple prime contracts and corresponding subcontracts.

Race-and gender-conscious measures. Race-and gender-conscious measures are programs in which businesses owned by some racial/ethnic groups may participate but non-minority-owned firms may not, or that apply to businesses owned by women but not men. A DBE contract goal is one example of a race- and gender-conscious measure.

Note that the term is more accurately "race-, ethnicity-, and gender-conscious measures." However, for ease of communication, the study team has shortened the term to "race- and gender-conscious measures."

Race- and gender-neutral measures. Race and gender-neutral measures apply to businesses regardless of the race/ethnicity or gender of firm ownership. Race- and gender-neutral measures may include assistance in overcoming bonding and financing obstacles, simplifying bidding procedures, providing technical assistance, establishing programs to assist start-up firms, and other methods open to all businesses or any disadvantaged business regardless of race or gender of ownership. (A broader list of examples can be found in 49 CFR Section 26.51(b).)

Note that the term is more accurately "race, ethnicity, and gender-neutral measures. However, for ease of communication, the study team has shortened the term to "race- and gender-neutral measures."

Relevant geographic market area. The relevant geographic market area is the geographic area in which the businesses receiving most NDOT and local agency contracting dollars are located. The relevant geographic market area is also referred to as the "local marketplace." Case law related to MBE/WBE programs requires disparity analyses to focus on the "relevant geographic market area." [1]

Remedy. A remedy is a contracting program measure that is designed to address barriers to full participation of a particular group of businesses.

Small business. A small business is a business with low revenues or size (based on revenue or number of employees) relative to other businesses in the industry. "Small business" does not necessarily mean that the business is certified as such.

Small Business Administration (SBA). The SBA refers to the United States Small Business Administration, which is an independent agency of the United States government that assists small businesses.

State-funded contract. A state-funded contract is any contract or project that is funded with State of Nevada or other local funds. Those contracts do not include federal funds.

Statistically significant difference. A statistically significant difference refers to a quantitative difference for which there is a 0.95 probability that chance can be correctly rejected as a reasonable explanation for the difference (meaning that there is a 0.05 probability that chance in the sampling process could correctly account for the difference).

Subconsultant. A subconsultant is a professional services firm that performed services for a prime consultant as part of a larger contract.

Subcontract. A subcontract is a contract between a prime contractor or prime consultant and another business selling goods or services to the prime contractor or prime consultant as part of a larger contract.

Subcontractor. A subcontractor is a construction firm that performed services for a prime contractor as part of a larger project.

Subrecipient. A subrecipient is a local agency receiving financial assistance from the United States Department of Transportation through NDOT.

Supplier. A supplier is a firm that sold supplies to a prime contractor as part of a larger project.

United States Departments of Transportation (USDOT). USDOT refers to the United States Department of Transportation, which includes the Federal Highway Administration, the Federal Transit Administration, and the Federal Aviation Administration.

Utilization. Utilization refers to the percentage of total contracting dollars of a particular type of

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[1] *See*, e.g., *Croson*, 448 U.S. at 509; 49 CFR Section 26.35; *Rothe*, 545 F.3d at 1041-1042; *N. Contracting*, 473 F.3d at 718, 722-23; *Western States Paving*, 407 F.3d at 995.

work going to a specific group of businesses (e.g., DBEs).

Nevada Department of Transportation (NDOT). NDOT is the steward of the State of Nevada's transportation system. NDOT is responsible for building, maintaining, and operating the state highway system. In addition, NDOT works with various partners to maintain and improve local transportation infrastructure. The department also provides other transportation services such as transportation safety.

WBE. See women-owned business.

Women-owned business (WBE). A WBE is a business with at least 51 percent ownership and control by non-minority women. A business need not be certified as such to be included as a WBE in this study. For this study, businesses owned and controlled by minority women are counted as minority-owned businesses.

APPENDIX B.
LEGAL FRAMEWORK AND ANALYSIS
Prepared by Holland & Knight LLP

A. Introduction

In this appendix, Holland & Knight LLP analyzes recent cases regarding the Transportation Equity Act for the 21st Century (TEA-21) as amended and reauthorized ("MAP-21," "SAFETEA" and "SAFETEA-LU"),[1] and the United States Department of Transportation ("USDOT" or "DOT") regulations promulgated to implement TEA-21 known as the Federal Disadvantaged Business Enterprise ("DBE") Program,[2] and local minority and women-owned business enterprise ("MBE/WBE") programs to provide a summary of the legal framework for the disparity study as applicable to Nevada DOT.

Appendix B begins with a review of the landmark United States Supreme Court decision in *City of Richmond v. J.A. Croson*.[3] *Croson* sets forth the strict scrutiny constitutional analysis applicable in the legal framework for conducting a disparity study. This section also notes the United States Supreme Court decision in *Adarand Constructors, Inc. v. Pena*,[4] ("*Adarand I*"), which applied the strict scrutiny analysis set forth in *Croson* to federal programs that provide federal assistance to a recipient of federal funds. The Supreme Court's decisions in *Adarand I* and *Croson*, and subsequent cases and authorities provide the basis for the legal analysis in connection with Nevada DOT's participation in the Federal DBE Program.

The legal framework then analyzes and reviews significant recent court decisions that have followed, interpreted, and applied *Croson* and *Adarand I* to the present and that are applicable to NDOT's disparity study and the strict scrutiny analysis. In particular, this analysis reviews the Ninth Circuit decisions in *Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation ("Caltrans"), et al.*[5] and *Western States Paving Co. v. Washington State DOT*[6].

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[1] Moving Ahead for Progress in the 21st Century Act ("MAP-21"), Pub L. 112-141, H.R. 4348, § 1101(b), July 6, 2012, 126 Stat 405.; preceded by Pub L. 109-59, Title I, § 1101(b), August 10, 2005, 119 Stat. 1156; preceded by Pub L. 105-178, Title I, § 1101(b), June 9, 1998, 112 Stat. 107.

[2] 49 CFR Part 26 (Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs ("Federal DBE Program").

[3] *City of Richmond v. J.A. Croson*, 488 U.S. 469 (1989).

[4] *Adarand Constructors, Inc. v. Pena*, 515 U.S. 200 (1995).

[5] *Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation, et al.*, _____ F. 3d _____, 2013 WL 1607239 (9th Cir. April 16, 2013); U.S.D.C., E.D. Cal, Civil Action No. S-09-1622, Slip Opinion Transcript (E.D. Cal. April 20, 2011), *appeal dismissed based on standing, on other grounds Ninth Circuit held Caltrans' DBE Program constitutional, Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation, et al.*, _____ F. 3d _____, 2013 WL 1607239 (9th Cir. April 16, 2013)

In *Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation ("Caltrans"), et al.*, ("*AGC, SDC v. Cal. DOT*"), the Ninth Circuit upheld the validity of the state DOT's implementation of the Federal DBE Program. In *Western States Paving*, the Ninth Circuit upheld the validity of the Federal DBE Program, but held that mere compliance with the Federal DBE Program by state recipients of federal funds, absent independent and sufficient state-specific evidence of discrimination in the state's transportation contracting industry marketplace, did not satisfy the strict scrutiny analysis.

In addition, the analysis reviews other recent federal cases that have considered the validity of the Federal DBE Program and a state government agency's or recipient's implementation of the DBE program, including *Northern Contracting, Inc. v. Illinois DOT,*[7] *Sherbrooke Turf, Inc. v. Minn DOT and Gross Seed v. Nebraska Department of Roads,*[8] *Adarand Construction, Inc. v. Slater*[9] *("Adarand VII")*, *Geod Corporation v. New Jersey Transit Corporation*[10], *South Florida Chapter of the A.G.C. v. Broward County, Florida*.[11]

The analyses of *AGC, SDC v. Cal. DOT*, *Western States Paving* and these other recent cases are instructive to NDOT and the disparity study because they are the most recent and significant decisions by federal courts setting forth the legal framework applied to the Federal DBE Program and its implementation by recipients of federal financial assistance governed by 49 CFR Part 26.[12] They also are applicable in terms of the preparation of its DBE Program by Nevada DOT submitted in compliance with the Federal DBE regulations.

Following *Western States Paving*, it is noteworthy that the USDOT, in particular for agencies in states in the Ninth Circuit Court of Appeals, recommended the use of disparity studies by recipients of Federal financial assistance to examine whether or not there is evidence of discrimination and its effects, and how remedies might be narrowly tailored in developing their DBE Program to comply with the Federal DBE Program.[13] The USDOT suggests consideration of both statistical and anecdotal evidence. The USDOT instructs that recipients should ascertain evidence for discrimination and its effects separately for each group presumed to be disadvantaged in 49 CFR Part

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[6] Western States Paving Co. v. Washington State DOT, 407 F.3d 983 (9th Cir. 2005), cert. denied, 546 U.S. 1170 (2006).

[7] 473 F.3d 715 (7th Cir. 2007).

[8] 345 F.3d 964 (8th Cir. 2003), *cert. denied*, 541 U.S. 1041 (2004).

[9] 228 F.3d 1147 (10th Cir. 2000) ("*Adarand VII*").

[10] 766 F. Supp.2d 642, (D. N.J. 2010).

[11] 544 F. Supp.2d 1336 (S.D. Fla. 2008).

[12] See *Northern Contracting, Inc. v. Illinois DOT*, 473 F.3d 715 (7th Cir. 2007); *Western States Paving*, 407 F.3d 983 (9th Cir. 2005); *Sherbrooke Turf, Inc. v. Minn. DOT*, 345 F.3d 964 (8th Cir. 2003), *cert. denied*, 541 U.S. 1041 (2004); *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147 (10th Cir. 2000) ("*Adarand VII*").

[13] Questions and Answers Concerning Response to *Western States Paving Company v. Washington State Department of Transportation* (January 2006) [hereinafter USDOT Guidance], *available at* 71 Fed. Reg. 14,775 and http://www.fhwa.dot.gov/civilrights/dbe_memo_a5.htm; *see* 49 CFR § 26.9; *see also* 49 C.F.R. Section 26.45.

26.[14] The USDOT's Guidance provides that recipients should consider evidence of discrimination and its effects.[15]

The USDOT's Guidance is recognized by the federal regulations as "valid and binding, and constitutes the official position of the Department of Transportation"[16] for states in the Ninth Circuit.

In *Western States Paving*, the United States intervened to defend the Federal DBE Program's facial constitutionality, and, according to the Court, stated "that [the Federal DBE Program's] race conscious measures can be constitutionally applied only in those states where the effects of discrimination are present."[17] Accordingly, the USDOT has advised federal aid recipients that any use of race-conscious measures must be predicated on evidence that the recipient has concerning discrimination or its effects within the local transportation contracting marketplace.[18]

Recently in the Ninth Circuit, the United States District Court for the Eastern District of California in *AGC, San Diego Chapter, Inc. v. California DOT, et al.* held in April 2011 that Caltrans' current implementation of the Federal DBE Program is constitutional.[19] The Ninth Circuit held that Caltrans' DBE Program implementing the Federal DBE Program was constitutional and survived strict scrutiny by: (1) having a strong basis in evidence of discrimination within the California transportation contracting industry based in substantial part on the evidence from the Disparity Study conducted for Caltrans; and (2) being "narrowly tailored" to benefit only those groups that have actually suffered discrimination. The District Court had held that the "Caltrans DBE Program is based on substantial statistical and anecdotal evidence of discrimination in the California contracting industry," satisfied the strict scrutiny standard, and is "clearly constitutional" and "narrowly tailored" under *Western States Paving* and the Supreme Court cases.[20]

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[14] DOT Guidance, available at http://www.fhwa.dot.gov/civilrights/dbe_memo_a5.htm (January 2006)

[15] *Id.*

[16] *Id.*, 49 C.F.R. § 26.9.

[17] *Western States Paving*, 407 F.3d at 996; *see also* Br. for the United States, at 28 (April 19, 2004).

[18] DOT Guidance, available at 71 Fed. Reg. 14,775 and http://www.fhwa.dot.gov/civilrights/dbe_memo_a5.htm (January 2006).

[19] *Associated General Contractors of America, San Diego Chapter, Inc. v. California DOT,* _____ F. 3d _____, 2013 WL 1607239 (9th Cir. April 16, 2013); *Associated General Contractor of America, San Diego Chapter, Inc. v. California DOT,* U.S.D.C. E.D. Cal., Civil Action No.S:09-cv-01622, Slip Opinion (E.D. Cal. April 20, 2011) *appeal dismissed based on standing*, on other grounds Ninth Circuit held Caltrans' DBE Program constitutional. Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation, et al., _____ F. 3d _____, 2013 WL 1607239 (9th Cir. April 16, 2013).

[20] *Id.*, *Associated General Contractors of America, San Diego Chapter, Inc. v. California DOT,* Slip Opinion Transcript of U.S. District Court at 42-56.

B. U.S. Supreme Court Cases

1. *City of Richmond v. J.A. Croson Co., 488 U.S. 469 (1989)*

In *Croson*, the U.S. Supreme Court struck down the City of Richmond's "set-aside" program as unconstitutional because it did not satisfy the strict scrutiny analysis applied to "race-based" governmental programs. J.A. Croson Co. ("Croson") challenged the City of Richmond's minority contracting preference plan, which required prime contractors to subcontract at least 30 percent of the dollar amount of contracts to one or more Minority Business Enterprises ("MBE"). In enacting the plan, the City cited past discrimination and an intent to increase minority business participation in construction projects as motivating factors.

The Supreme Court held the City of Richmond's "set-aside" action plan violated the Equal Protection Clause of the Fourteenth Amendment. The Court applied the "strict scrutiny" standard, generally applicable to any race-based classification, which requires a governmental entity to have a "compelling governmental interest" in remedying past identified discrimination and that any program adopted by a local or state government must be "narrowly tailored" to achieve the goal of remedying the identified discrimination.

The Court determined that the plan neither served a "compelling governmental interest" nor offered a "narrowly tailored" remedy to past discrimination. The Court found no "compelling governmental interest" because the City had not provided "a strong basis in evidence for its conclusion that [race-based] remedial action was necessary." The Court held the City presented no direct evidence of any race discrimination on its part in awarding construction contracts or any evidence that the City's prime contractors had discriminated against minority-owned subcontractors. The Court also found there were only generalized allegations of societal and industry discrimination coupled with positive legislative motives. The Court concluded that this was insufficient evidence to demonstrate a compelling interest in awarding public contracts on the basis of race.

Similarly, the Court held the City failed to demonstrate that the plan was "narrowly tailored" for several reasons, including because there did not appear to have been any consideration of race-neutral means to increase minority business participation in city contracting, and because of the over inclusiveness of certain minorities in the "preference" program (for example, Aleuts) without any evidence they suffered discrimination in Richmond.

The Court further found "if the City could show that it had essentially become a 'passive participant' in a system of racial exclusion practiced by elements of the local construction industry, … [i]t could take affirmative steps to dismantle such a system." The Court held that "[w]here there is a significant statistical disparity between the number of qualified minority contractors willing and able to perform a particular service and the number of such contractors actually engaged by the locality or the locality's prime contractors, an inference of discriminatory exclusion could arise." The Supreme Court noted that it did not intend its decision to preclude a state or local government from "taking action to rectify the effects of identified discrimination within its jurisdiction."

2. Adarand Constructors, Inc. v. Pena ("Adarand I"), 515 U.S. 200 (1995)

In *Adarand I*, the U.S. Supreme Court extended the holding in *Croson* and ruled that all federal government programs that use racial or ethnic criteria as factors in procurement decisions must pass a test of strict scrutiny in order to survive constitutional muster. The cases interpreting *Adarand I* are the most recent and significant decisions by federal courts setting forth the legal framework for disparity studies as well as the predicate to satisfy the constitutional strict scrutiny standard of review, which applies to the implementation of the Federal DBE Program by recipients of federal funds.

C. The Legal Framework Applied to the Federal DBE Program and State and Local Government MBE/WBE Programs

The following provides an analysis for the legal framework focusing on recent key cases regarding the Federal DBE Program and state and local MBE/WBE programs, and their implications for a disparity study. The recent decisions involving the Federal DBE Program are instructive to Nevada DOT and the disparity study because they concern the strict scrutiny analysis and legal framework in this area, and implementation of the DBE Program by recipients of federal financial assistance (like Nevada DOT) based on 49 C.F.R. Part 26.

1. The Federal DBE Program

After the *Adarand* decision, the U.S. Department of Justice in 1996 conducted a study of evidence on the issue of discrimination in government construction procurement contracts, which Congress relied upon as documenting a compelling governmental interest to have a federal program to remedy the effects of current and past discrimination in the transportation contracting industry for federally-funded contracts.[21] Subsequently, in 1998, Congress passed the Transportation Equity Act for the 21st Century ("TEA-21"), which authorized the United States Department of Transportation to expend funds for federal highway programs for 1998 - 2003. Pub.L. 105-178, Title I, § 1101(b), 112 Stat. 107, 113 (1998). The USDOT promulgated new regulations in 1999 contained at 49 C.F.R. Part 26 to establish the current Federal DBE Program. The TEA-21 was subsequently extended in 2003, 2005 and 2012. The reauthorization of TEA-21 in 2005 was for a five year period from 2005 to 2009. Pub.L. 109-59, Title I, § 1101(b), August 10, 2005, 119 Stat. 1153-57 ("SAFETEA"). In July 2012, Congress passed the Moving Ahead for Progress in the 21st Century Act ("MAP-21").[22]

The Federal DBE Program as amended changed certain requirements for federal aid recipients and accordingly changed how recipients of federal funds implemented the Federal DBE Program for federally-assisted contracts. The federal government determined that there is a compelling governmental interest for race- and gender-based programs at the national level, and that the program is narrowly tailored because of the federal regulations, including the flexibility in implementation provided to individual federal aid recipients by the regulations. State and local governments are not required to implement race- and gender-based measures where they are not

[21] *Appendix-The Compelling Interest for Affirmative Action in Federal Procurement*, 61 Fed. Reg. 26,050, 26,051-63 & nn. 1-136 (May 23, 1996) (hereinafter "The Compelling Interest"); *see Adarand VII*, 228 F.3d at 1167-1176, *citing The Compelling Interest.*

[22] *Pub* L. 112-141, H.R. 4348, § 1101(b), July 6, 2012, 126 Stat 405.

necessary to achieve DBE goals and those goals may be achieved by race- and gender-neutral measures.[23]

The Federal DBE Program established responsibility for implementing the DBE Program to state and local government recipients of federal funds. A recipient of federal financial assistance must set an annual DBE goal specific to conditions in the relevant marketplace. Even though an overall annual 10 percent aspirational goal applies at the federal level, it does not affect the goals established by individual state or local governmental recipients. The Federal DBE Program outlines certain steps a state or local government recipient can follow in establishing a goal, and USDOT considers and must approve the goal and the recipient's DBE program. The implementation of the Federal DBE Program is substantially in the hands of the state or local government recipient and is set forth in detail in the federal regulations, including 49 C.F.R. § 26.45.

Provided in 49 C.F.R. § 26.45 are instructions as to how recipients of federal funds should set the overall goals for their DBE programs. In summary, the recipient establishes a base figure for relative availability of DBEs.[24] This is accomplished by determining the relative number of ready, willing, and able DBEs in the recipient's market.[25] Second, the recipient must determine an appropriate adjustment, if any, to the base figure to arrive at the overall goal.[26] There are many types of evidence considered when determining if an adjustment is appropriate, according to 49 C.F.R. § 26.45(d). These include, among other types, the current capacity of DBEs to perform work on the recipient's contracts as measured by the volume of work DBEs have performed in recent years. If available, recipients consider evidence from related fields that affect the opportunities for DBEs to form, grow, and compete, such as statistical disparities between the ability of DBEs to obtain financing, bonding, and insurance, as well as data on employment, education, and training.[27] This process, based on the federal regulations, aims to establish a goal that reflects a determination of the level of DBE participation one would expect absent the effects of discrimination. [28]

Further, the Federal DBE Program requires state and local government recipients of federal funds to assess how much of the DBE goal can be met through race- and gender-neutral efforts and what percentage, if any, should be met through race- and gender-based efforts. [29]

A state or local government recipient is responsible for seriously considering and determining race- and gender-neutral measures that can be implemented.[30] A recipient of federal funds must establish a contract clause requiring prime contractors to promptly pay subcontractors in the Federal DBE Program (42 C.F.R. § 26.29). The Federal DBE Program also established certain record-keeping

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[23] 49 C.F.R. § 26.51.

[24] 49 C.F.R. § 26.45(a), (b), (c).

[25] *Id.*

[26] *Id.* at § 26.45(d).

[27] *Id.*

[28] 49 C.F.R. § 26.45(b)-(d).

[29] 49 C.F.R. § 26.51.

[30] 49 C.F.R. § 26.51(b).

requirements, including maintaining a bidders list containing data on contractors and subcontractors seeking federally-assisted contracts from the agency (42 C.F.R. § 26.11). There are multiple administrative requirements that recipients must comply with in accordance with the regulations.[31]

Federal aid recipients are to certify DBEs according to their race/gender, size, net worth and other factors related to defining an economically and socially disadvantaged business as outlined in 49 C.F.R. §§ 26.61-26.73.

MAP-21 (July 2012).

In the 2012 Moving Ahead for Progress in the 21st Century Act (MAP-21), Congress provides "Findings" that "discrimination and related barriers" "merit the continuation of the" Federal DBE Program.[32] In MAP-21, Congress specifically finds as follows:

> "(A) while significant progress has occurred due to the establishment of the disadvantaged business enterprise program, discrimination and related barriers continue to pose significant obstacles for minority- and women-owned businesses seeking to do business in federally-assisted surface transportation markets across the United States;
>
> (B) the continuing barriers described in subparagraph (A) merit the continuation of the disadvantaged business enterprise program;
>
> (C) Congress has received and reviewed testimony and documentation of race and gender discrimination from numerous sources, including congressional hearings and roundtables, scientific reports, reports issued by public and private agencies, news stories, reports of discrimination by organizations and individuals, and discrimination lawsuits, which show that race- and gender-neutral efforts alone are insufficient to address the problem;
>
> (D) the testimony and documentation described in subparagraph (C) demonstrate that discrimination across the United States poses a barrier to full and fair participation in surface transportation-related businesses of women business owners and minority business owners and has impacted firm development and many aspects of surface transportation-related business in the public and private markets; and
>
> (E) the testimony and documentation described in subparagraph (C) provide a strong basis that there is a compelling need for the continuation of the disadvantaged business enterprise program to address race and gender discrimination in surface transportation-related business."[33]

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[31] 49 C.F.R. §§ 26.21-26.37.

[32] Pub L. 112-141, H.R. 4348, § 1101(b), July 6, 2012, 126 Stat 405.

[33] Pub L. 112-141, H.R. 4348, § 1101(b), July 6, 2012, 126 Stat 405.

Thus, Congress in MAP-21 determined based on testimony and documentation of race and gender discrimination that there is "a compelling need for the continuation of the" Federal DBE Program.[34]

U.S. DOT Final Rule, 76 Fed. Reg. 5083 (January 28, 2011).

The United States Department of Transportation promulgated a new Final Rule on January 28, 2011, effective February 28, 2011, 76 Fed. Reg. 5083 (January 28, 2011) ("Final Rule") amending the Federal DBE Program at 49 C.F.R. Part 26. According to the United States DOT, the Rule increases accountability for recipients with respect to meeting overall goals, modifies and updates certification requirements, adjusts the personal net worth threshold for inflation to $1.32 million dollars, provides for expedited interstate certification, adds provisions to foster small business participation, provides for additional post-award oversight and monitoring, and addresses other matters.[35]

In particular, the Final Rule provides that a recipient's DBE Program must include a monitoring and enforcement mechanism to ensure that work committed to DBEs at contract award or subsequently is actually performed by the DBEs to which the work was committed and that this mechanism must include a written certification that the recipient has reviewed contracting records and monitored work sites for this purpose.[36]

In addition, the Final Rule adds a Section 26.39 to Subpart B to provide for fostering small business participation.[37] The recipient's DBE program must include an element to structure contracting requirements to facilitate competition by small business concerns, which must be submitted to the appropriate DOT operating administration for approval by February 28, 2012.[38] The new Final Rule provides a list of "strategies" that may be included as part of the small business program, including establishing a race-neutral small business set-aside for prime contracts under a stated amount; requiring bidders on prime contracts to specify elements or specific subcontracts that are of a size that small businesses, including DBEs, can reasonably perform; requiring the prime contractor to provide subcontracting opportunities of a size that small businesses, including DBEs, can reasonably perform; and to meet the portion of the recipient's overall goal it projects to meet through race-neutral measures, ensuring that a reasonable number of prime contracts are of a size that small businesses, including DBEs, can reasonably perform and other strategies.[39] The new Final Rule provides that actively implementing program elements to foster small business participation is a requirement of good faith implementation of the recipient's DBE program.[40]

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[34] *Id.*

[35] 76 F.R. 5083-5101.

[36] *See* 49 C.F.R. § 26.37, 76 F.R. at 5097.

[37] 76 F.R. at 5097, January 28, 2011.

[38] *Id.*

[39] *Id.* at 5097, amending 49 C.F.R. § 26.39(b)(1)-(5).

[40] *Id.* at 5097, amending 49 C.F.R. § 26.39(c).

The Final Rule also provides that recipients must take certain specific actions if the awards and commitments shown on its Uniform Report of Awards or Commitments and Payments, at the end of any fiscal year, are less than the overall goal applicable to that fiscal year, in order to be regarded by the DOT as implementing its DBE program in good faith.[41] The Final Rule sets out what action the recipient must take in order to be regarded as implementing its DBE program in good faith, including analyzing the reasons for the difference between the overall goal and its awards and commitments, establishing specific steps and milestones to correct the problems identified, and submitting at the end of the fiscal year a timely analysis and corrective actions to the appropriate operating administration for approval, and additional actions.[42] The Final Rule provides a list of acts or omissions that DOT will regard the recipient as being in non-compliance for failing to implement its DBE program in good faith, including not submitting its analysis and corrective actions, disapproval of its analysis or corrective actions, or if it does not fully implement the corrective actions.[43]

The Department states in the Final Rule with regard to disparity studies and in calculating goals, that it agrees "it is reasonable, in calculating goals and in doing disparity studies, to consider potential DBEs (*e.g.*, firms apparently owned and controlled by minorities or women that have not been certified under the DBE program) as well as certified DBEs. This is consistent with good practice in the field as well as with DOT guidance."[44]

The United States DOT in the Final Rule states that there is a continuing compelling need for the DBE program.[45] The DOT concludes that, as court decisions have noted, the DOT's DBE regulations and the statutes authorizing them, "are supported by a compelling need to address discrimination and its effects."[46] The DOT says that the "basis for the program has been established by Congress and applies on a nationwide basis…", notes that both the House and Senate Federal Aviation Administration ("FAA") Reauthorization Bills contained findings reaffirming the compelling need for the program, and references additional information presented to the House of Representatives in a March 26, 2009 hearing before the Transportation and Infrastructure Committee, and a Department of Justice document entitled "The Compelling Interest for Race- and Gender-Conscious Federal Contracting Programs: A Decade Later An Update to the May 23, 1996 Review of Barriers for Minority- and Women-Owned Businesses."[47] This information, the DOT states, "confirms the continuing compelling need for race- and gender-conscious programs such as the DOT DBE program."[48]

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[41] 76 F.R. at 5098, amending 49 C.F.R. § 26.47(c).

[42] *Id.*, amending 49 C.F.R. § 26.47(c)(1)-(5).

[43] *Id.*, amending 49 C.F.R. § 26.47(c)(5).

[44] 76 F.R. at 5092.

[45] 76 F.R. at 5095.

[46] 76 F.R. at 5095.

[47] *Id.*

[48] *Id.*

Notice of Proposed Rulemaking (NPRM) for the Disadvantaged Business Enterprise:

Program Implementation Modifications for 49 CFR Part 26 (September 6, 2012). On September 6, 2012, the Department of Transportation published a Notice of Proposed Rulemaking (NPRM) entitled, "Disadvantaged Business Enterprise: Program Implementation Modifications" in the Federal Register at 77 Fed. Reg. 54952.[49] On October 25, 2012, the USDOT issued an extension of time for the Comment Period to comment on the NPRM, by extending the Comment Period until December 24, 2012.[50]

This Notice of Proposed Rulemaking proposes three categories of changes that the Department indicates will improve implementation of the DOT's Federal DBE Program. First, the NPRM proposes revisions to personal net worth, application, and reporting forms. Second, the NPRM proposes modifications to certification-related provisions of the rule. Third, the NPRM would modify several other provisions of the rule, including concerning such subjects as good faith efforts, transit vehicle manufacturers and counting of trucking companies. [51]

The USDOT notes the DBE Program was recently reauthorized in the Moving Ahead for Progress in the 21st Century Act ("MAP-21"), Public Law 112-141 (enacted July 6, 2012), and that the Department believes this reauthorization is intended to maintain the status quo of the DBE Program and does not include any significant substantive changes to the Program.[52]

The Notice of Proposed Rulemaking proposes changes to the Personal Net Worth Form and related requirements of 49 CFR 26.67; certification provisions at Section 26.65; what rules govern determinations of ownership at Section 26.69; what rules govern determinations concerning control at Section 26.71; what are other rules affecting certification at Section 26.73; what procedures do recipients follow in making certification decisions at Section 26.83; what rules govern recipients' denials of initial requests for certification at Section 26.86; what procedures does a recipient use to remove a DBE's eligibility at Section 26.87; summary suspension of certification at Section 26.88; and what is the process for certification appeals to the USDOT at Section 26.89.[53]

In addition, other provisions that are proposed to be amended include: what are the objectives of this Part at Section 26.1; specific definitions at Section 26.5 adding eight new definitions for the following words or phrases: "assets;" "business, business concern, or business enterprise;" "contingent liability;" "days;" "immediate family member;" "liabilities;" "non-disadvantaged individual;" "principal place of business;" and "transit vehicle manufacturer (TVM)."[54]

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[49] 77 F.R. 54952-55024 (September 6, 2012).

[50] 77 F.R. 65164 (October 25, 2012).

[51] 77 F.R. 54952.

[52] *Id.* at 54952.

[53] *Id.* at 54952-54960.

[54] *Id.* at 54960.

Also, additional provisions proposed to be amended include: what records do recipients keep and report at Section 26.11; who must have a DBE Program at Section 26.21; how are overall goals established for transit vehicle manufacturers at Section 26.49; what means do recipients use to meet overall goals at Section 26.51; what are the rules governing information, confidentiality, cooperation, and intimidation or retaliation at Section 26.109.[55]

The NPRM proposes adding language to Appendix A - Good Faith Efforts, including recommending that recipients scrutinize the documented good faith efforts by contractors, and at a minimum, review the performance of other bidders in meeting the contract goal; propose mirroring language added in Section 26.53 revisions that recipients require contractors to submit all subcontractor quotes in order to review whether DBE prices were substantially higher; require recipients to contact the DBEs listed on a contractor's solicitation to inquire as to whether they were, in fact, contacted by the prime; and language stating that pro forma mailings to DBEs requesting bids are not alone sufficient to satisfy good faith efforts under the rule.[56]

The NPRM proposed various modifications of the DBE Program, including four proposed modifications to existing and/or new information collections, including modifications to the Uniform Report of DBE Commitment/Awards and Payments Form found in Appendix B of 49 CFR Part 26.[57]

As part of the Rulemaking the Department intends to reinstate the information collection entitled, "Uniform Report of DBE Commitment/Rewards and Payments," consistent with the changes proposed in the NPRM.[58] This information collection requires that DOT Form 4630 be submitted by each recipient and is used to enable DOT to conduct program oversight and recipients' DBE Programs.[59] In this NPRM, the Department proposes to modify certain aspects of this information collection in response to issues raised by stakeholders, including: (1) Creating separate forms for routine DBE reporting and for transit vehicle manufacturers and mega projects; (2) amending and clarifying the report's instructions to better explain how to fill out the form; and (3) changing the forms to better capture the desired DBE data on a more continuous basis.[60]

It should be noted that because this is a Notice of Proposed Rulemaking, which the Comment Period has been extended to December 24, 2012, at the time of this report it is not known whether any or all of these proposed rules actually will be promulgated as a Final Rule, which most likely would occur in 2013. It also is possible, based on the comments received by the USDOT, that there will be changes to the proposed amended language to these rules when they are published in the Final Rule.

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[55] *Id.* at 54960-54965.

[56] *Id.* at 54965-54966.

[57] *Id.* at 54976-54978.

[58] *Id.* at 54966-54967; 77 F.R. 65165 (October 25, 2012).

[59] *Id.*

[60] 77 F.R. 65165 (October 25, 2012).

2. *Strict Scrutiny Analysis*

A race- and ethnicity-based program implemented by a state or local government is subject to the strict scrutiny constitutional analysis.[61] Nevada DOT's implementation of the Federal DBE Program also is subject to the strict scrutiny analysis if it utilizes race- and ethnicity-based efforts. The strict scrutiny analysis is comprised of two prongs:

- The program must serve an established compelling governmental interest; and
- The program must be narrowly tailored to achieve that compelling government interest.[62]

a. The Compelling Governmental Interest Requirement

The first prong of the strict scrutiny analysis requires a governmental entity to have a "compelling governmental interest" in remedying past identified discrimination in order to implement a race- and ethnicity-based program. State and local governments cannot rely on national statistics of discrimination in an industry to draw conclusions about the prevailing market conditions in their own regions.[63] Rather, state and local governments must measure discrimination in their state or local market. However, that is not necessarily confined by the jurisdiction's boundaries.[64]

The federal courts have held that, with respect to the Federal DBE Program, recipients of federal funds do not need to independently satisfy this prong because Congress has satisfied the compelling interest test of the strict scrutiny analysis.[65] The federal courts have held that Congress had ample evidence of discrimination in the transportation contracting industry to justify the Federal DBE Program (TEA-21), and the federal regulations implementing the program (49 C.F.R. Part 26).[66]

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[61] C*roson*, 448 U.S. at 492-493; *Adarand Constructors, Inc. v. Pena* (*Adarand I*), 515 U.S. 200, 227 (1995).

[62] Adarand I, 515 U.S. 200, 227 (1995); Northern Contracting, 473 F.3d at 721; Western States Paving, 407 F.3d at 991; Sherbrooke Turf, 345 F.3d at 969; Adarand VII, 228 F.3d at 1176.; Associated Gen. Contractors of Ohio, Inc. v. Drabik ("Drabik II"), 214 F.3d 730 (6th Cir. 2000); Eng'g Contractors Ass'n of South Florida, Inc. v. Metro. Dade County, 122 F.3d 895 (11th Cir. 1997); Contractors Ass'n of E. Pa. v. City of Philadelphia ("CAEP I"), 6 F.3d 990 (3d Cir. 1993).

[63] See e.g., Concrete Works, Inc. v. City and County of Denver ("Concrete Works I"), 36 F.3d 1513, 1520 (10th Cir. 1994).

[64] *Id.*

[65] *N. Contracting*, 473 F.3d at 721; *Western States Paving*, 407 F.3d at 991; *Sherbrooke Turf*, 345 F.3d at 969; *Adarand VII*, 228 F.3d at 1176.

[66] *Id.* In the case of *Rothe Dev. Corp. v. U.S. Dept. of Defense*, 545 F.3d 1023 (Fed. Cir. 2008), the Federal Circuit Court of Appeals pointed out it had questioned in its earlier decision whether the evidence of discrimination before Congress was in fact so "outdated" so as to provide an insufficient basis in evidence for the Department of Defense program (*i.e.*, whether a compelling interest was satisfied). 413 F.3d 1327 (Fed. Cir. 2005). The Federal Circuit Court of Appeals after its 2005 decision remanded the case to the district court to rule on this issue. *Rothe* considered the validity of race- and gender-conscious Department of Defense ("DOD") regulations (2006 Reauthorization of the 1207 Program). The decisions in *N. Contracting*, *Sherbrooke Turf*, *Adarand VII*, and *Western States Paving* held the evidence of discrimination nationwide in transportation contracting was sufficient to find the Federal DBE Program on its face was constitutional. On remand, the district court in *Rothe* on August 10, 2007 issued its order denying plaintiff *Rothe's* Motion for Summary Judgment and granting Defendant United States Department of Defense's Cross-Motion for Summary Judgment, holding the 2006 Reauthorization of the 1207 DOD Program constitutional. *Rothe Devel. Corp. v. U.S. Dept. of Defense*, 499 F.Supp.2d 775 (W.D. Tex. Aug 10, 2007). The district court found the data contained in the Appendix (The Compelling Interest, 61 Fed.

Specifically, the federal courts found Congress "spent decades compiling evidence of race discrimination in government highway contracting, of barriers to the formation of minority-owned construction businesses, and of barriers to entry."[67] The evidence found to satisfy the compelling interest standard included numerous congressional investigations and hearings, and outside studies of statistical and anecdotal evidence (*e.g.*, disparity studies).[68] The evidentiary basis on which Congress relied to support its finding of discrimination includes:

- **Barriers to minority business formation.** Congress found that discrimination by prime contractors, unions, and lenders has woefully impeded the formation of qualified minority business enterprises in the subcontracting market nationwide, noting the existence of "good ol' boy" networks, from which minority firms have traditionally been excluded, and the race-based denial of access to capital, which affects the formation of minority subcontracting enterprise.[69]

- **Barriers to competition for existing minority enterprises.** Congress found evidence showing systematic exclusion and discrimination by prime contractors, private sector customers, business networks, suppliers, and bonding companies precluding minority enterprises from opportunities to bid. When minority firms are permitted to bid on subcontracts, prime contractors often resist working with them. Congress found evidence of the same prime contractor using a minority business enterprise on a government contract not using that minority business enterprise on a private contract, despite being satisfied with that subcontractor's work. Congress found that informal, racially exclusionary business networks dominate the subcontracting construction industry.[70]

- **Local disparity studies.** Congress found that local studies throughout the country tend to show a disparity between utilization and availability of minority-owned firms, raising an inference of discrimination.[71]

- **Results of removing affirmative action programs.** Congress found evidence that when race-conscious public contracting programs are struck down or discontinued, minority business

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Reg. 26050 (1996)), the Urban Institute Report, and the Benchmark Study – relied upon in part by the courts in *Sherbrooke Turf*, *Adarand VII*, and *Western States Paving* in upholding the constitutionality of the Federal DBE Program – was "stale" as applied to and for purposes of the 2006 Reauthorization of the 1207 DOD Program. This district court finding was not appealed or considered by the Federal Circuit Court of Appeals. 545 F.3d 1023, 1037. The Federal Circuit Court of Appeals reversed the district court decision in part and held invalid the DOD Section 1207 program as enacted in 2006. 545 F.3d 1023, 1050. See the discussion of the 2008 Federal Circuit Court of Appeals decision in *Rothe* below in Section G. *See also* the discussion below in Section G of the 2012 district court decision in *DynaLantic Corp. v. U.S. Department of Defense, et al*, ___ F.Supp.2d ____, 2012 WL 3356813 (D.D.C. Aug. 15, 2012).

[67] *Sherbrooke Turf*, 345 F.3d at 970, (*citing Adarand VII*, 228 F.3d at 1167 – 76); *Western States Paving*, 407 F.3d at 992-93.

[68] *See*, *e.g.*, *Adarand VII*, 228 F.3d at 1167– 76; *see also Western States Paving*, 407 F.3d at 992 (Congress "explicitly relied upon" the Department of Justice study that "documented the discriminatory hurdles that minorities must overcome to secure federally funded contracts").

[69] *Adarand VII*, 228 F.3d. at 1168-70; *Western States Paving*, 407 F.3d at 992; *see DynaLantic,* ___ F.Supp.2d ___, 2012 WL 3356813.

[70] *Adarand VII.* at 1170-72; *see DynaLantic,* ___ F.Supp.2d ___, 2012 WL 3356813.

[71] *Id.* at 1172-74; *see DynaLantic,* ___ F.Supp.2d ___, 2012 WL 3356813.

participation in the relevant market drops sharply or even disappears, which courts have found strongly supports the government's claim that there are significant barriers to minority competition, raising the specter of discrimination.[72]

- **MAP-21.** Recently, in July 2012, Congress passed MAP-21 (see above), which made "Findings" that "discrimination and related barriers continue to pose significant obstacles for minority- and women-owned businesses seeking to do business in federally-assisted surface transportation markets," and that the continuing barriers "merit the continuation" of the Federal DBE Program.[73] Congress also found that it received and reviewed testimony and documentation of race and gender discrimination which "provide a strong basis that there is a compelling need for the continuation of the" Federal DBE Program.[74]

Burden of proof. Under the strict scrutiny analysis, and to the extent a state or local governmental entity has implemented a race- and gender-conscious program, the governmental entity has the initial burden of showing a strong basis in evidence (including statistical and anecdotal evidence) to support its remedial action.[75] If the government makes its initial showing, the burden shifts to the challenger to rebut that showing.[76] The challenger bears the ultimate burden of showing that the governmental entity's evidence "did not support an inference of prior discrimination."[77]

Statistical evidence. Statistical evidence of discrimination is a primary method used to determine whether or not a strong basis in evidence exists to develop, adopt and support a remedial program (i.e., to prove a compelling governmental interest), or in the case of a recipient complying with the Federal DBE Program, to prove narrow tailoring of program implementation at the state recipient level.[78] "Where gross statistical disparities can be shown, they alone in a proper case may constitute prima facie proof of a pattern or practice of discrimination."[79]

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[72] *Id.* at 1174-75.

[73] Pub L. 112-141, H.R. 4348, § 1101(b), July 6, 2012, 126 Stat 405.

[74] Id. at § 1101(b)(1).

[75] See Rothe Development Corp. v. Department of Defense, 545 F.3d 1023, 1036 (Fed. Cir. 2008); N. Contracting, Inc. Illinois, 473 F.3d at 715, 721 (7th Cir. 2007) (Federal DBE Program); Western States Paving Co. v. Washington State DOT, 407 F.3d 983, 991 (9th Cir. 2005) (Federal DBE Program); Sherbrooke Turf, Inc. v. Minnesota DOT, 345 F.3d 964, 969 (8th Cir. 2003) (Federal DBE Program); Adarand Constructors Inc. v. Slater ("Adarand VII"), 228 F.3d 1147, 1166 (10th Cir. 2000) (Federal DBE Program); Eng'g Contractors Ass'n, 122 F.3d at 916; Monterey Mechanical Co. v. Wilson, 125 F.3d 702, 713 (9th Cir. 1997); DynaLantic, ___ F.Supp.2d ___, 2012 WL 3356813; Hershell Gill Consulting Engineers, Inc. v. Miami Dade County, 333 F. Supp.2d 1305, 1316 (S.D. Fla. 2004).

[76] *Adarand VII*, 228 F.3d at 1166; *Eng'g Contractors Ass'n*, 122 F.3d at 916.

[77] *See, e.g.*, *Adarand VII*, 228 F.3d at 1166; *Eng'g Contractors Ass'n*, 122 F.3d at 916; *see also Sherbrooke Turf*, 345 F.3d at 971; *N. Contracting*, 473 F.3d at 721.

[78] *See, e.g.*, *Croson*, 488 U.S. at 509; *N. Contracting*, 473 F.3d at 718-19, 723-24; *Western States Paving*, 407 F.3d at 991; *Adarand VII*, 228 F.3d at 1166.

[79] *Croson*, 488 U.S. at 501, *quoting Hazelwood School Dist. v. United States*, 433 U.S. 299, 307-08 (1977).

One form of statistical evidence is the comparison of a government's utilization of MBE/WBEs compared to the relative availability of qualified, willing and able MBE/WBEs.[80] The federal courts have held that a significant statistical disparity between the utilization and availability of minority- and women-owned firms may raise an inference of discriminatory exclusion.[81] However, a small statistical disparity, standing alone, may be insufficient to establish discrimination.[82]

Other considerations regarding statistical evidence include:

- **Availability analysis.** A disparity index requires an availability analysis. MBE/WBE and DBE availability measures the relative number of MBE/WBEs and DBEs among all firms ready, willing and able to perform a certain type of work within a particular geographic market area.[83] There is authority that measures of availability may be approached with different levels of specificity and the practicality of various approaches must be considered,[84] "An analysis is not devoid of probative value simply because it may theoretically be possible to adopt a more refined approach."[85]

- **Utilization analysis.** Courts have accepted measuring utilization based on the proportion of an agency's contract dollars going to MBE/WBEs and DBEs.[86]

- **Disparity index.** An important component of statistical evidence is the "disparity index."[87] A disparity index is defined as the ratio of the percent utilization to the percent availability times 100. A disparity index below 80 has been accepted as evidence of adverse impact. This has been referred to as "The Rule of Thumb" or "The 80 percent Rule."[88]

- **Two standard deviation test.** The standard deviation figure describes the probability that the measured disparity is the result of mere chance. Some courts have held that a statistical disparity

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[80] *Croson*, 448 U.S. at 509; *see Rothe*, 545 F.3d at 1041-1042; *Concrete Works of Colo., Inc. v. City and County of Denver* ("*Concrete Works II*"), 321 F.3d 950, 959 (10th Cir. 2003); *Drabik II*, 214 F.3d 730, 734-736.

[81] *See*, *e.g.*, *Croson*, 488 U.S. at 509; *Rothe*, 545 F.3d at 1041; *Concrete Works II*, 321 F.3d at 970; *see Western States Paving*, 407 F.3d at 1001.

[82] *Western States Paving*, 407 F.3d at 1001.

[83] *See*, *e.g.*, *Croson*, 448 U.S. at 509; 49 C.F.R. § 26.35; *Rothe*, 545 F.3d at 1041-1042; *N. Contracting*, 473 F.3d at 718, 722-23; *Western States Paving*, 407 F.3d at 995.

[84] Contractors Ass'n of Easton Pennsylvania, Inc. v. City of Philadelphia ("CAEP II"), 91 F.3d 586, 603 (3d Cir. 1996).

[85] *Id.*

[86] *See Eng'g Contractors Ass'n*, 122 F.3d at 912; *N. Contracting*, 473 F.3d at 717-720; *Sherbrooke Turf*, 345 F.3d at 973.

[87] Eng'g Contractors Ass'n, 122 F.3d at 914; W.H. Scott Constr. Co. v. City of Jackson, 199 F.3d 206, 218 (5th Cir. 1999); Contractors Ass'n of Eastern Pennsylvania, Inc. v. City of Philadelphia, 6 F.3d 990 at 1005 (3rd Cir. 1993).

[88] *See*, *e.g.*, *Ricci v. DeStefano*, ___ U.S. ___, 129 S.Ct. 2658, 2678 (2009); *Rothe*, 545 F.3d at 1041; *Eng'g Contractors Ass'n*, 122 F.3d at 914, 923; *Concrete Works I*, 36 F.3d at 1524.

corresponding to a standard deviation of less than two is not considered statistically significant.[89]

Anecdotal evidence.

Anecdotal evidence includes personal accounts of incidents, including of discrimination, told from the witness' perspective. Anecdotal evidence of discrimination, standing alone, generally is insufficient to show a systematic pattern of discrimination.[90] But personal accounts of actual discrimination may complement empirical evidence and play an important role in bolstering statistical evidence.[91] It has been held that anecdotal evidence of a local or state government's institutional practices that exacerbate discriminatory market conditions are often particularly probative.[92]

Examples of anecdotal evidence may include:

- Testimony of MBE/WBE or DBE owners regarding whether they face difficulties or barriers;
- Descriptions of instances in which MBE/WBE or DBE owners believe they were treated unfairly or were discriminated against based on their race, ethnicity, or gender or believe they were treated fairly without regard to race, ethnicity, or gender;
- Statements regarding whether firms solicit, or fail to solicit, bids or price quotes from MBE/WBEs or DBEs on non-goal projects; and
- Statements regarding whether there are instances of discrimination in bidding on specific contracts and in the financing and insurance markets.[93]

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[89] *Eng'g Contractors Ass'n*, 122 F.3d at 914, 917, 923. The Eleventh Circuit found that a disparity greater than two or three standard deviations has been held to be statistically significant and may create a presumption of discriminatory conduct.; *Peightal v. Metropolitan Eng'g Contractors Ass'n*, 26 F.3d 1545, 1556 (11th Cir. 1994). The Seventh Circuit Court of Appeals in *Kadas v. MCI Systemhouse Corp*., 255 F.3d 359 (7th Cir. 2001), raised questions as to the use of the standard deviation test alone as a controlling factor in determining the admissibility of statistical evidence to show discrimination. Rather, the Court concluded it is for the judge to say, on the basis of the statistical evidence, whether a particular significance level, in the context of a particular study in a particular case, is too low to make the study worth the consideration of judge or jury. 255 F.3d at 363.

[90] Eng'g Contractors Ass'n, 122 F.3d at 924-25; Coral Constr. Co. v. King County, 941 F.2d 910, 919 (9th Cir. 1991); O'Donnel Constr. Co. v. District of Columbia, 963 F.2d 420, 427 (D.C. Cir. 1992).

[91] *See, e.g.*, *Eng'g Contractors Ass'n*, 122 F.3d at 925-26; *Concrete Works*, 36 F.3d at 1520; *Contractors Ass'n*, 6 F.3d at 1003; *Coral Constr. Co. v. King County*, 941 F.2d 910, 919 (9th Cir. 1991).

[92] *Concrete Works I*, 36 F.3d at 1520.

[93] *See*, *Northern Contracting*, 2005 WL 2230195, at 13-15 (N.D. Ill. 2005), *affirmed*, 473 F.3d 715 (7th Cir. 2007); *e.g.*, *Concrete Works*, 321 F.3d at 989; *Adarand VII*, 228 F.3d at 1166-76. For additional examples of anecdotal evidence, *see Eng'g Contractors Ass'n*, 122 F.3d at 924; *Concrete Works*, 36 F.3d at 1520; *Cone Corp. v. Hillsborough County*, 908 F.2d 908, 915 (11th Cir. 1990); *DynaLantic,* ___ F.Supp.2d ___, 2012 WL 3356813; *Florida A.G.C. Council, Inc. v. State of Florida*, 303 F. Supp.2d 1307, 1325 (N.D. Fla. 2004).

Courts have accepted and recognize that anecdotal evidence is the witness' narrative of incidents told from his or her perspective, including the witness' thoughts, feelings, and perceptions, and thus anecdotal evidence need not be verified.[94]

b. The Narrow Tailoring Requirement

The second prong of the strict scrutiny analysis requires that a race- or ethnicity-based program or legislation implemented to remedy past identified discrimination in the relevant market be "narrowly tailored" to reach that objective.

The narrow tailoring requirement has several components and the courts analyze several criteria or factors in determining whether a program or legislation satisfies this requirement including:

- The necessity for the relief and the efficacy of alternative race-, ethnicity-, and gender-neutral remedies;
- The flexibility and duration of the relief, including the availability of waiver provisions;
- The relationship of numerical goals to the relevant labor market; and
- The impact of a race-, ethnicity-, or gender-conscious remedy on the rights of third parties.[95]

The second prong of the strict scrutiny analysis requires the implementation of the Federal DBE Program by recipients of federal funds be "narrowly tailored" to remedy identified discrimination in the particular recipient's contracting and procurement market.[96] The narrow tailoring requirement has several components.

It should be pointed out that in the *Northern Contracting* decision (2007) the Seventh Circuit Court of Appeals cited its earlier precedent in *Milwaukee County Pavers v. Fielder* to hold "that a state is insulated from [a narrow tailoring] constitutional attack, absent a showing that the state exceeded its federal authority. IDOT [Illinois DOT] here is acting as an instrument of federal policy and Northern Contracting (NCI) cannot collaterally attack the federal regulations through a challenge to IDOT's program."[97] The Seventh Circuit Court of Appeals distinguished both the Ninth Circuit Court of Appeals decision in *Western States Paving* and the Eighth Circuit Court of Appeals decision in *Sherbrooke Turf*, relating to an as-applied narrow tailoring analysis.

The Seventh Circuit Court of Appeals held that the state DOT's [Illinois DOT] application of a federally mandated program is limited to the question of whether the state exceeded its grant of

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[94] *See*, *e.g.*, *Concrete Works II*, 321 F.3d at 989; *Eng'g Contractors Ass'n*, 122 F.3d at 924-26; *Cone Corp.*, 908 F.2d at 915; *Northern Contracting, Inc. v. Illinois*, 2005 WL 2230195 at *21, N. 32 (N.D. Ill. Sept. 8, 2005), *aff'd* 473 F.3d 715 (7th Cir. 2007).

[95] *See*, *e.g.*, *Rothe*, 545 F.3d at 1036; *Western States Paving*, 407 F3d at 993-995; *Sherbrooke Turf*, 345 F.3d at 971; *Adarand VII*, 228 F.3d at 1181; *Eng'g Contractors Ass'n*, 122 F.3d at 927 (internal quotations and citations omitted).

[96] *Western States Paving*, 407 F3d at 995-998; *Sherbrooke Turf*, 345 F.3d at 970-71.

[97] 473 F.3d at 722.

federal authority under the Federal DBE Program.[98] The Seventh Circuit Court of Appeals analyzed IDOT's compliance with the federal regulations regarding calculation of the availability of DBEs, adjustment of its goal based on local market conditions and its use of race-neutral methods set forth in the federal regulations.[99] The court held NCI failed to demonstrate that IDOT did not satisfy compliance with the federal regulations (49 C.F.R. Part 26).[100] Accordingly, the Seventh Circuit Court of Appeals affirmed the district court's decision upholding the validity of IDOT's DBE program.[101] See the discussion of the *Northern Contracting* decision below in Section E.

In *Western States Paving*, the Ninth Circuit held the recipient of federal funds must have independent evidence of discrimination within the recipient's own transportation contracting and procurement marketplace in order to determine whether or not there is the need for race-, ethnicity-, or gender-conscious remedial action.[102] Thus, the Ninth Circuit held in *Western States Paving* that mere compliance with the Federal DBE Program does not satisfy strict scrutiny.[103]

In *Western States Paving*, the Court found that even where evidence of discrimination is present in a recipient's market, a narrowly tailored program must apply only to those minority groups who have actually suffered discrimination. Thus, under a race- or ethnicity -conscious program, for each of the minority groups to be included in any race- or ethnicity-conscious elements in a recipient's implementation of the Federal DBE Program, there must be evidence that the minority group suffered discrimination within the recipient's marketplace.[104]

To satisfy the narrowly tailored prong of the strict scrutiny analysis in the context of the Federal DBE Program, the federal courts, which evaluated state DOT DBE Programs and their implementation of the Federal DBE Program, have held the following factors are pertinent:

- Evidence of discrimination or its effects in the state transportation contracting industry;
- Flexibility and duration of a race- or ethnicity-conscious remedy;
- Relationship of any numerical DBE goals to the relevant market;
- Effectiveness of alternative race- and ethnicity-neutral remedies;
- Impact of a race- or ethnicity-conscious remedy on third parties; and

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[98] *Id.* at 722.

[99] *Id.* at 723-24.

[100] *Id.*

[101] See, e.g., Geod Corp. v. New Jersey Transit Corp., et al., 746 F.Supp 2d 642 (D.N.J. 2010); South Florida Chapter of the A.G.C. v. Broward County, Florida, 544 F.Supp.2d 1336 (S.D. Fla. 2008).

[102] *Western States Paving*, 407 F.3d at 997-98, 1002-03.

[103] *Id.* at 995-1003. The Seventh Circuit Court of Appeals in *Northern Contracting* stated in a footnote that the court in *Western States Paving* "misread" the decision in *Milwaukee County Pavers*. 473 F.3d at 722, n. 5.

[104] 407 F.3d at 996-1000.

- Application of any race- or ethnicity-conscious program to only those minority groups who have actually suffered discrimination.[105]

The Eleventh Circuit described the "the essence of the 'narrowly tailored' inquiry [as] the notion that explicitly racial preferences … must only be a 'last resort' option."[106] Courts have found that "[w]hile narrow tailoring does not require exhaustion of every conceivable race-neutral alternative, it does require serious, good faith consideration of whether such alternatives could serve the governmental interest at stake."[107]

Similarly, the Sixth Circuit Court of Appeals in *Associated Gen. Contractors v. Drabik ("Drabik II")*, stated: "*Adarand* teaches that a court called upon to address the question of narrow tailoring must ask, "for example, whether there was 'any consideration of the use of race-neutral means to increase minority business participation' in government contracting … or whether the program was appropriately limited such that it 'will not last longer than the discriminatory effects it is designed to eliminate.'"[108]

The Supreme Court in *Parents Involved in Community Schools v. Seattle School District*[109] also found that race- and ethnicity-based measures should be employed as a last resort. The majority opinion stated: "Narrow tailoring requires 'serious, good faith consideration of workable race-neutral alternatives,' and yet in Seattle several alternative assignment plans—many of which would not have used express racial classifications—were rejected with little or no consideration."[110] The Court found that the District failed to show it seriously considered race-neutral measures.

The "narrowly tailored" analysis is instructive in terms of developing any potential legislation or programs that involve DBEs and implementing the Federal DBE Program, or in connection with determining appropriate remedial measures to achieve legislative objectives.

Race-, ethnicity-, and gender-neutral measures. To the extent a "strong basis in evidence" exists concerning discrimination in a local or state government's relevant contracting and procurement market, the courts analyze several criteria or factors to determine whether a state's implementation of a race- or ethnicity-conscious program is necessary and thus narrowly tailored to achieve remedying identified discrimination. One of the key factors discussed above is consideration of race-, ethnicity- and gender-neutral measures.

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[105] See, e.g., Western States Paving, 407 F.3d at 998; Sherbrooke Turf, 345 F.3d at 971; Adarand VII, 228 F.3d at 1181; Kornhass Construction, Inc. v. State of Oklahoma, Department of Central Services, 140 F.Supp.2d at 1247-1248.

[106] *Eng'g Contractors Ass'n*, 122 F.3d at 926 (internal citations omitted); *see also Virdi v. DeKalb County School District*, 135 Fed. Appx. 262, 264, 2005 WL 138942 (11th Cir. 2005) (unpublished opinion); *Webster v. Fulton County*, 51 F. Supp.2d 1354, 1380 (N.D. Ga. 1999), *aff'd per curiam* 218 F.3d 1267 (11th Cir. 2000).

[107] *See Grutter v. Bollinger*, 539 U.S. 306, 339 (2003); *Richmond v. J.A. Croson Co*., 488 U.S. 469, 509-10 (1989); *Western States Paving*, 407 F.3d at 993; *see also Adarand I*, 515 U.S. at 237-38.

[108] *Associated Gen. Contractors of Ohio, Inc. v. Drabik* ("Drabik II"), 214 F.3d 730, 738 (6th Cir. 2000).

[109] 551 U.S. 701, 734-37, 127 S.Ct. 2738, 2760-61 (2007)

[110] 551 U.S. 701, 734-37, 127 S.Ct. at 2760-61; *see also Grutter v. Bollinger*, 539 U.S. 305 (2003).

The courts require that a local or state government seriously consider race-, ethnicity- and gender-neutral efforts to remedy identified discrimination.[111] And the courts have held unconstitutional those race- and ethnicity-conscious programs implemented without consideration of race- and ethnicity-neutral alternatives to increase minority business participation in state and local contracting.[112]

The Court in *Croson* followed by decisions from federal courts of appeal found that local and state governments have at their disposal a "whole array of race-neutral devices to increase the accessibility of city contracting opportunities to small entrepreneurs of all races."[113]

The federal regulations and the courts require that recipients of federal financial assistance governed by 49 C.F.R. Part 26 implement or seriously consider race-, ethnicity-, and gender-neutral remedies prior to the implementation of race-, ethnicity-, and gender-conscious remedies.[114] The courts have also found "the regulations require a state to 'meet the maximum feasible portion of [its] overall goal by using race neutral means.[115]

Examples of race-, ethnicity-, and gender-neutral alternatives include, but are not limited to, the following:

- Providing assistance in overcoming bonding and financing obstacles;
- Relaxation of bonding requirements;
- Providing technical, managerial and financial assistance;
- Establishing programs to assist start-up firms;
- Simplification of bidding procedures;
- Training and financial aid for all disadvantaged entrepreneurs;

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[111] *See*, *e.g.*, *Western States Paving*, 407 F.3d at 993; *Sherbrooke Turf*, 345 F.3d at 972; *Adarand VII*, 228 F.3d at 1179; *Eng'g Contractors Ass'n*, 122 F.3d at 927; *Coral Constr.*, 941 F.2d at 923.

[112] *See Croson*, 488 U.S. at 507; *Drabik I*, 214 F.3d at 738 (citations and internal quotations omitted); *see also Eng'g Contractors Ass'n*, 122 F.3d at 927; *Virdi*, 135 Fed. Appx. At 268.

[113] *Croson*, 488 U.S. at 509-510.

[114] 49 C.F.R. § 26.51(a) requires recipients of federal funds to "meet the maximum feasible portion of your overall goal by using race-neutral means of facilitating DBE participation." *See*, *e.g.*, *Adarand VII*, 228 F.3d at 1179; *Western States Paving*, 407 F.3d at 993; *Sherbrooke Turf*, 345 F.3d at 972. Additionally, in September of 2005, the United States Commission on Civil Rights (the "Commission") issued its report entitled "Federal Procurement After *Adarand*" setting forth its findings pertaining to federal agencies' compliance with the constitutional standard enunciated in *Adarand*. United States Commission on Civil Rights: Federal Procurement After *Adarand* (Sept. 2005), available at http://www.usccr.gov. The Commission found that 10 years after the Court's *Adarand* decision, federal agencies have largely failed to narrowly tailor their reliance on race-conscious programs and have failed to seriously consider race-neutral measures that would effectively redress discrimination. See discussion of USCCR Report at Section G. below.

[115] *See*, *e.g.*, *Northern Contracting*, 473 F.3d at 723 – 724; *Western States Paving*, 407 F.3d at 993 (*citing* 49 C.F.R. § 26.51(a)).

- Non-discrimination provisions in contracts and in state law;
- Mentor-protégé programs and mentoring;
- Efforts to address prompt payments to smaller businesses;
- Small contract solicitations to make contracts more accessible to smaller businesses;
- Expansion of advertisement of business opportunities;
- Outreach programs and efforts;
- "How to do business" seminars;
- Sponsoring networking sessions throughout the state acquaint small firms with large firms;
- Creation and distribution of MBE/WBE and DBE directories; and
- Streamlining and improving the accessibility of contracts to increase small business participation.[116]

49 C.F.R. § 26.51(b) provides examples of race-, ethnicity-, and gender-neutral measures that should be seriously considered and utilized. The courts have held that while the narrow tailoring analysis does not require a governmental entity to exhaust every possible race-, ethnicity-, and gender-neutral alternative, it does "require serious, good faith consideration of workable race-neutral alternatives.[117]

Additional factors considered under narrow tailoring. In addition to the required consideration of the necessity for the relief and the efficacy of alternative remedies (race- and ethnicity-neutral efforts), the courts require evaluation of additional factors as listed above.[118] For example, to be considered narrowly tailored, courts have held that a MBE/WBE- or DBE-type program should include: (1) built-in flexibility;[119] (2) good faith efforts provisions;[120] (3) waiver provisions;[121] (4) a rational basis for goals;[122] (5) graduation provisions;[123] (6) remedies only for groups for which there

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[116] *See* 49 C.F.R. § 26.51(b); *see*, *e.g.*, *Croson*, 488 U.S. at 509-510; *N. Contracting*, 473 F.3d at 724; *Adarand VII*, 228 F.3d 1179; 49 C.F.R. § 26.51(b); *Eng'g Contractors Ass'n*, 122 F.3d at 927-29.

[117] Western States Paving, 407 F.3d at 993.

[118] Eng'g Contractors Ass'n, 122 F.3d at 927.

[119] CAEP I, 6 F.3d at 1009; Associated Gen. Contractors of Ca., Inc. v. Coalition for Economic Equality ("AGC of Ca."), 950 F.2d 1401, 1417 (9th Cir. 1991); Coral Constr. Co. v. King County, 941 F.2d 910, 923 (9th Cir. 1991); Cone Corp. v. Hillsborough County, 908 F.2d 908, 917 (11th Cir. 1990).

[120] *CAEP* I, 6 F.3d at 1019; *Cone Corp.*, 908 F.2d at 917.

[121] *CAEP* I, 6 F.3d at 1009; AGC of Ca., 950 F.2d at 1417; *Cone Corp.*, 908 F.2d at 917.

[122] *Id.*

[123] *Id.*

were findings of discrimination;[124] (7) sunset provisions;[125] and (8) limitation in its geographical scope to the boundaries of the enacting jurisdiction.[126]

3. Intermediate Scrutiny Analysis.

Certain Federal Courts of Appeal, including the Ninth Circuit Court of Appeals, apply intermediate scrutiny to gender-conscious programs.[127] The Ninth Circuit and other courts have interpreted this standard to require that gender-based classifications be:

1. Supported by both "sufficient probative" evidence or "exceedingly persuasive justification" in support of the stated rationale for the program; and

2. Substantially related to the achievement of that underlying objective.[128]

Under the traditional intermediate scrutiny standard, the court reviews a gender-conscious program by analyzing whether the state actor has established a sufficient factual predicate for the claim that female-owned businesses have suffered discrimination, and whether the gender-conscious remedy is an appropriate response to such discrimination. This standard requires the state actor to present "sufficient probative" evidence in support of its stated rationale for the program.[129]

Intermediate scrutiny, as interpreted by the Ninth Circuit and other federal circuit courts of appeal, requires a direct, substantial relationship between the objective of the gender preference and the means chosen to accomplish the objective. The measure of evidence required to satisfy intermediate scrutiny is less than that necessary to satisfy strict scrutiny. Unlike strict scrutiny, it has been held that the intermediate scrutiny standard does not require a showing of government involvement, active or passive, in the discrimination it seeks to remedy.[130] And the Eleventh Circuit has held that "[w]hen a gender-conscious affirmative action program rests on sufficient evidentiary foundation, the government is not required to implement the program only as a last resort …. Additionally, under

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[124] *Western States Paving*, 407 F.3d at 998; *AGC of Ca*., 950 F.2d at 1417.

[125] *Peightal*, 26 F.3d at 1559.

[126] *Coral Constr*., 941 F.2d at 925.

[127] *See generally*, *Western States Paving*, 407 F.3d at 990 n. 6; *Coral Constr. Co*., 941 F.2d at 931-932 (9th Cir. 1991); *Equal. Found. v. City of Cincinnati*, 128 F.3d 289 (6th Cir. 1997); *Eng'g Contractors Ass'n*, 122 F.3d at 905, 908, 910; *Ensley Branch N.A.A.C.P. v. Seibels*, 31 F.3d 1548 (11th Cir. 1994); *see also U.S. v. Virginia*, 518 U.S. 515, 532 and n. 6 (1996)("exceedingly persuasive justification.")

[128] *Id*.

[129] *Id*. The Seventh Circuit Court of Appeals, however, in *Builders Ass'n of Greater Chicago v. County of Cook, Chicago*, did not hold there is a different level of scrutiny for gender discrimination or gender based programs. 256 F.3d 642, 644-45 (7th Cir. 2001). The Court in *Builders Ass'n* rejected the distinction applied by the Eleventh Circuit in *Engineering Contractors*.

[130] *Coral Constr. Co*., 941 F.2d at 931-932; *See Eng'g Contractors Ass'n*, 122 F.3d at 910.

intermediate scrutiny, a gender-conscious program need not closely tie its numerical goals to the proportion of qualified women in the market."[131]

4. Pending Cases (at the time of this report).

There are pending cases in the federal courts, at the time of this report, that may potentially impact and be instructive to Nevada DOT as a recipient of federal funding under the Federal DBE Program, including the following:

Mountain West Holding Co., Inc. v. The State of Montana, et al. In Mountain West Holding Co., Inc. v. The State of Montana, Montana DOT, et al. Plaintiff Mountain West Holding Co., Inc. ("Mountain West"), alleges it is a contractor that provides construction-specific traffic planning and staffing for construction projects as well as the installation of signs, guardrails, and concrete barriers, sued the Montana Department of Transportation ("MDT") and the State of Montana, challenging their implementation of the Federal DBE Program. Mountain West brought this action alleging violation of the Equal Protection Clause of the Fourteenth Amendment of the United States Constitution, Title VI of the Civil Rights Act, 42 USC § 2000(d)(7), and 42 USC § 1983.

According to the First Amended Complaint, the State of Montana commissioned a disparity study in 2009. Based upon the disparity study, Mountain West alleges the State of Montana utilized race, national origin, and gender-conscious goals in highway construction contracts.

Mountain West claims the State did not have a strong basis in evidence to show there was past discrimination in the highway construction industry in Montana and that the implementation of race, gender, and national origin preferences were necessary or appropriate. Mountain West also alleges that Montana has instituted policies and practices which exceed the United States Department of Transportation DBE requirements.

Mountain West asserts that the 2009 study concluded all "relevant" minority groups were underutilized in "professional services" and Asian Pacific Americans and Hispanic Americans were underutilized in "business categories combined," but it also concluded that all "relevant" minority groups were significantly over-utilized in construction. Mountain West thus alleges that although the disparity study demonstrates that DBE groups are "significantly overrepresented" in the highway construction field, MDT has established preferences for DBE construction subcontractor firms over non-DBE construction subcontractor firms in the award of contracts.

Mountain West also asserts that the Montana DBE Program does not have a valid statistical basis for the establishment or inclusion of race, national origin, and gender conscious goals, that MDT inappropriately relies upon the 2009 study as the basis for its DBE Program, and that the study is flawed. Mountain West claims the Montana DBE Program is not narrowly tailored because it disregards large differences in DBE firm utilization in MDT contracts as among three different categories of subcontractors: business categories combined, construction, and professional services; the MDT DBE certification process does not require the applicant to specify any specific racial or ethnic prejudice or cultural bias that had a negative impact upon his or her business success; and the

[131] *Id.* at 929 (internal citations omitted.)

certification process does not require the applicant to certify that he or she was discriminated against in the State of Montana in highway construction.

The case, recently filed, is in the beginning stages of litigation at this time with dispositive motions scheduled to be filed by the end of September 2014. See *Mountain West Holding Co., Inc. v. The State of Montana, et al. In Mountain West Holding Co., Inc. v. The State of Montana, Montana DOT, et al.*, Case No. 1:13-CV-00049-DLC, United States District Court for the District of Montana, Billings Division.

Midwest Fence Corporation v. United States Department of Transportation and Federal Highway Administration, the Illinois Department of Transportation, the Illinois State Toll Highway Authority, et al. In *Midwest Fence Corporation v. USDOT, the FHWA, the Illinois DOT and the Illinois State Toll Highway Authority*, Case No. 1:10-3-CV-5627, United States District Court for the Northern District of Illinois, Eastern Division, Plaintiff Midwest Fence Corporation, which is a guardrail, bridge rail and fencing contractor owned and controlled by white males is challenging the constitutionality and the application of the USDOT, Disadvantaged Business Enterprise ("DBE") Program. In addition, Midwest Fence similarly challenges the IDOT's implementation of the Federal DBE Program for federally funded projects, IDOT's implementation of its own DBE Program for state-funded projects and the Illinois State Toll Highway Authority's separate DBE Program.

The federal district court has issued an Opinion and Order denying the Defendants' Motion to Dismiss for lack of standing, denying the federal Defendants' Motion to Dismiss certain Counts of the Complaint as a matter of law, granting IDOT Defendants' Motion to Dismiss certain Counts and granting the Tollway Defendants' Motion to Dismiss certain Counts, but giving leave to Midwest to replead subsequent to this Order. *Midwest Fence Corp. v. United States DOT, Illinois DOT, et al.*, 2011 WL 2551179 (N.D. Ill. June 27, 2011).

Midwest Fence in its Third Amended Complaint challenges the constitutionality of the Federal DBE Program on its face and as applied, and challenges the IDOT's implementation of the Federal DBE Program. Midwest Fence also seeks a declaration that the USDOT regulations have not been properly authorized by Congress and a declaration that SAFETEA-LU is unconstitutional. Midwest Fence seeks relief from the IDOT Defendants, including a declaration that state statutes authorizing IDOT's DBE Program for State-funded contracts are unconstitutional; a declaration that IDOT does not follow the USDOT regulations; a declaration that the IDOT DBE Program is unconstitutional and other relief against the IDOT. The remaining Counts seek relief against the Tollway Defendants, including that the Tollway's DBE Program is unconstitutional, and a request for punitive damages against the Tollway Defendants. The Court on September 27, 2012 granted the Tollway Defendants' Motion to Dismiss Midwest Fence's request for punitive damages.

This case, at the time of this report, is currently in the final expert witness discovery stage of the litigation to be followed by the dispositive motions and pretrial stage of the litigation.

Geyer Signal, Inc., et al. v. Minnesota DOT, the United States DOT, the Federal Highway Administration, et al. In *Geyer Signal, Inc., et al. v. Minnesota DOT, U.S. DOT, Federal Highway Administration, et al.*, Case No. 11-CV-321, United States District Court for the District Court of Minnesota, the Plaintiffs Geyer Signal, Inc. and its owner filed this lawsuit against the Minnesota DOT seeking a permanent injunction against enforcement and a declaration of unconstitutionality of the Federal DBE Program and Minnesota DOT's implementation of the DBE Program on its face

and as applied. Geyer Signal seeks an injunction against the Minnesota DOT prohibiting it from enforcing the DBE Program or, alternatively, from implementing the Program improperly; a declaratory judgment declaring that the DBE Program violates the Equal protection element of the Fifth Amendment of the United States Constitution and/or the Equal Protection clause of the Fourteenth Amendment to the United States Constitution and is unconstitutional, or, in the alternative that Minnesota DOT's implementation of the Program is an unconstitutional violation of the Equal Protection Clause, and/or that the Program is void for vagueness; and other relief.

Plaintiff Geyer Signal is a small, family-owned business that performs traffic control work generally on road construction projects. Geyer Signal is a majority-owned firm by a Caucasian male, who also is a named plaintiff.

Subsequent to the lawsuit filed by Geyer Signal, the USDOT and the Federal Highway Administration ("FHWA") filed their Motion to permit them to intervene as defendants in this case. The Federal Defendant-Intervenors requested intervention on the case in order to defend the constitutionality of the Federal DBE Program and the federal regulations at issue. The Federal Defendant-Intervenors and the Plaintiffs filed a Stipulation that the Federal Defendant-Intervenors have the right to intervene and should be permitted to intervene in the matter, and consequently the Plaintiffs did not contest the Federal Defendant-Intervenor's Motion for Intervention. The Court issued an Order that the Stipulation of Intervention, agreeing that the Federal Defendant-Intervenors may intervene in this lawsuit, be approved and that the Federal Defendant-Intervenors are permitted to intervene in this case.

At the time of this report, the case is pending in the Federal District Court of the District of Minnesota and currently is in the dispositive motions and pretrial stage of the litigation. Dispositive Motions for Summary Judgment by Defendant USDOT and Minnesota DOT have been filed and are pending. The Court held a hearing on the motions on September 23, 2013, and has taken the motions "Under Advisement."

Dunnet Bay Construction Company v. Gary Hannig, in its official capacity as Secretary of Transportation for the Illinois DOT and the Illinois DOT. In *Dunnet Bay Construction Company v. Gary Hannig, in its official capacity as Secretary of the Illinois DOT and the Illinois DOT*, Case No. 3:10-CV-3051, in the United States District Court for the Central District of Illinois, Springfield Division, plaintiff Dunnet Bay Construction Company brought a lawsuit against the Secretary of the IDOT in its official capacity and the IDOT challenging the IDOT DBE Program and its implementation of the Federal DBE Program, including an alleged unwritten "no waiver" policy, and that the IDOT's program is not narrowly tailored. The IDOT filed a Motion to Dismiss certain Counts of the Complaint. In an Order from the United States District Court, the Court granted the Motion to Dismiss Counts I, II and III against the IDOT primarily based on the defense of immunity under the Eleventh Amendment to the United States Constitution. The Opinion held that claims in Counts I and II against Secretary Hannig of the IDOT in his official capacity remain pending.

In addition, there are other Counts of the Complaint that remain in the case that are not subject to the Motion to Dismiss, which seek injunctive relief and damages based on the challenge to the IDOT DBE Program and its application by the IDOT. Plaintiff Dunnet Bay alleges the IDOT DBE Program is unconstitutional based on the unwritten no-waiver policy, requiring Dunnet Bay to meet DBE goals and denying Dunnet Bay a waiver of the goals despite its good faith efforts, and based on other allegations.

This case is currently pending in the discovery stage with dispositive Motions and a pretrial conference, at the time of this report, scheduled for December 2013. *See, Dunnet Bay Construction Company v. Hannig*, (Text Order by the Court dated October 4, 2013). A date for the jury trial will be set at the final pretrial conference. (Text Order, October 4, 2013). *See also, Dunnet Bay*, 2011 WL 5417123 (C.D. Ill. November 9, 2011) (Court Order denying Dunnet Bay's Motion to Compel Production).

This list of pending cases is not exhaustive, but is illustrative of current pending cases that may impact recipients of federal funds implementing the Federal DBE Program.

Ongoing review. The above represents a brief summary of the legal framework pertinent to implementation of DBE, MBE/WBE, or race-, ethnicity-, or gender-neutral programs. Because this is a dynamic area of the law, the framework is subject to ongoing review as the law continues to evolve. The following provides more detailed summaries of key recent decisions.

D. Recent Decisions Involving the Federal DBE Program and State or Local Government MBE/WBE Programs in the Ninth Circuit.

1. Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation, et al., _____ F. 3d _____, 2013 WL 1607239 (9th Cir. April 16, 2013)

The Associated General Contractors of America, Inc., San Diego Chapter, Inc. , ("AGC") sought declaratory and injunctive relief against the California Department of Transportation ("Caltrans") and its officers on the grounds that Caltrans' Disadvantaged Business initial Enterprise ("DBE") program unconstitutionally provided race -and sex-based preferences to African American, Native American-, Asian-Pacific American-, and women-owned firms on certain transportation contracts. The federal district court upheld the constitutionality of Caltrans' DBE program implementing the Federal DBE program and granted summary judgment to Caltrans. The district court held that Caltrans' DBE program implementing the Federal DBE Program satisfied strict scrutiny because Caltrans had a strong basis in evidence of discrimination in the California transportation contracting industry, and the program was narrowly tailored to those groups that actually suffered discrimination. The district court held that Caltrans' substantial statistical and anecdotal evidence from a disparity study conducted by BBC Research and Consulting, provided a strong basis in evidence of discrimination against the four named groups, and that the program was narrowly tailored to benefit only those groups. 2013 WL 1607239, at *1.

The AGC appealed the decision to the Ninth Circuit Court of Appeals. The Ninth Circuit initially held that because the AGC did not identify any of the members who have suffered or will suffer harm as a result of Caltrans' program, the AGC did not establish that it had associational standing to bring the lawsuit. *Id.* Most significantly, the Ninth Circuit held that even if the AGC could establish standing, its appeal failed because the Court found Caltrans' DBE program implementing the Federal DBE program is constitutional and satisfied the applicable level of strict scrutiny required by the Equal Protection Clause of the United States Constitution. *Id.* at **6-11.

Evidence gathering and the 2007 Disparity Study. On May 1, 2006, Caltrans ceased to use race- and gender-conscious measures in implementing their DBE program on federally assisted contracts while it gathered evidence in an effort to comply with the *Western States Paving* decision. *Id.* at *2. Caltrans commissioned a disparity study by BBC Research and Consulting to determine whether there was

evidence of discrimination in California's transportation contracting industry. *Id.* The Court noted that disparity analysis involves making a comparison between the availability of minority- and women-owned businesses and their actual utilization, producing a number called a "disparity index." *Id.* An index of 100 represents statistical parity between availability and utilization, and a number below 100 indicates underutilization. *Id.* An index below 80 is considered a substantial disparity that supports an inference of discrimination. *Id.*

The Court found the research firm and the disparity study gathered extensive data to calculate disadvantaged business availability in the California transportation contracting industry. *Id.* at *3. The Court stated: "Based on review of public records, interviews, assessments as to whether a firm could be considered available, for Caltrans contracts, as well as numerous other adjustments, the firm concluded that minority- and women-owned businesses should be expected to receive 13.5% of contact dollars from Caltrans administered federally assisted contracts." *Id.*

The Court said the research firm "examined over 10,000 transportation-related contracts administered by Caltrans between 2002 and 2006 to determine actual DBE utilization. The firm assessed disparities across a variety of contracts, separately assessing contracts based on funding source (state or federal), type of contract (prime or subcontract), and type of project (engineering or construction)." *Id.* at *3.

The Court pointed out a key difference between federally funded and state funded contracts is that race-conscious goals were in place for the federally funded contracts during the 2002–2006 period, but not for the state funded contracts. *Id.* at *3. Thus, the Court stated: "state funded contracts functioned as a control group to help determine whether previous affirmative action programs skewed the data." *Id.*

Moreover, the Court found the research firm measured disparities in all twelve of Caltrans' administrative districts, and computed aggregate disparities based on statewide data. *Id.* at *3. The firm evaluated statistical disparities by race and gender. The Court stated that within and across many categories of contracts, the research firm found substantial statistical disparities for African American, Asian–Pacific, and Native American firms. *Id.* However, the research firm found that there were not substantial disparities for these minorities in *every* subcategory of contract. *Id.* The Court noted that the disparity study also found substantial disparities in utilization of women-owned firms for some categories of contracts. *Id.* After publication of the disparity study, the Court pointed out the research firm calculated disparity indices for all women-owned firms, including female minorities, showing substantial disparities in the utilization of all women-owned firms similar to those measured for white women. *Id.*

The Court found that the disparity study and Caltrans also developed extensive anecdotal evidence, by (1) conducting twelve public hearings to receive comments on the firm's findings; (2) receiving letters from business owners and trade associations; and (3) interviewing representatives from twelve trade associations and 79 owners/managers of transportation firms. *Id.* at *4. The Court stated that some of the anecdotal evidence indicated discrimination based on race or gender. *Id.*

Caltrans' DBE Program. Caltrans concluded that the evidence from the disparity study supported an inference of discrimination in the California transportation contracting industry. *Id.* at *4. Caltrans concluded that it had sufficient evidence to make race- and gender-conscious goals for African

American-, Asian–Pacific American-, Native American-, and women-owned firms. *Id*. The Court stated that Caltrans adopted the recommendations of the disparity report and set an overall goal of 13.5% for disadvantaged business participation. Caltrans expected to meet one-half of the 13.5% goal using race-neutral measures. *Id*.

Caltrans submitted its proposed DBE program to the U.S. DOT for approval, including a request for a waiver to implement the program only for the four identified groups. *Id*. at *4. The Caltrans' DBE program included 66 race-neutral measures that Caltrans already operated or planned to implement, and subsequent proposals increased the number of race-neutral measures to 150. *Id*. The U.S. DOT granted the waiver, but initially did not approve Caltrans' DBE program until in 2009, the DOT approved Caltrans' DBE program for fiscal year 2009.

District Court proceedings. AGC then filed a complaint alleging that Caltrans' implementation of the Federal DBE Program violated the Fourteenth Amendment of the U.S. Constitution, Title VI of the Civil Rights Act, and other laws. Ultimately, the AGC only argued an as-applied challenge to Caltrans' DBE program. The district court on motions of summary judgment held that Caltrans' program was "clearly constitutional," as it "was supported by a strong basis in evidence of discrimination in the California contracting industry and was narrowly tailored to those groups which had actually suffered discrimination. *Id*. at *4.

Subsequent Caltrans Study and Program. While the appeal by the AGC was pending, Caltrans commissioned a new disparity study from BBC to update its DBE program as required by the federal regulations. *Id*. at *4. In August 2012, BBC published its second disparity report, and Caltrans concluded that the updated study provided evidence of continuing discrimination in the California transportation contracting industry against the same four groups and Hispanic Americans. *Id*. Caltrans submitted a modified DBE program that is nearly identical to the program approved in 2009, except that it now includes Hispanic Americans and sets an overall goal of 12.5%, of which 9.5% will be achieved through race- and gender-conscious measures. *Id*. The U.S. DOT approved Caltrans' updated program in November 2012. *Id*.

Jurisdiction Issue. Initially, the Ninth Circuit Court of Appeals considered whether it had jurisdiction over the AGC's appeal based on the doctrines of mootness and standing. The Court held that the appeal is not moot because Caltrans' new DBE program is substantially similar to the prior program and is alleged to disadvantage AGC's members "in the same fundamental way" as the previous program. *Id*. at *5.

The Court, however, held that the AGC did not establish associational standing. *Id*. at *5-*6: The Court found that the AGC did not identify any affected members by name nor has it submitted declarations by any of its members attesting to harm they have suffered or will suffer under Caltrans' program. *Id*. at *6. Because AGC failed to establish standing, the Court held it must dismiss the appeal due to lack of jurisdiction. *Id*. at *6.

Caltrans' DBE Program held constitutional on the merits. The Court then held that even if AGC could establish standing, its appeal would fail. *Id*. at *6. The Court held that Caltrans' DBE program is constitutional because it survives the applicable level of scrutiny required by the Equal Protection Clause and jurisprudence. *Id*. at **6-11.

The Court stated that race-conscious remedial programs must satisfy strict scrutiny and that although strict scrutiny is stringent, it is not "fatal in fact." *Id.* at *6 (quoting *Adarand Constructors, Inc. v. Peña,* 515 U.S. 200, 237 (1995) (*Adarand III*)). The Court quoted *Adarand III*: "The unhappy persistence of both the practice and the lingering effects of racial discrimination against minority groups in this country is an unfortunate reality, and government is not disqualified from acting in response to it." *Id. at *6 (*quoting *Adarand III*, 515 U.S. at 237.)

The Court pointed out that gender-conscious programs must satisfy intermediate scrutiny which requires that gender-conscious programs be supported by an 'exceedingly persuasive justification' and be substantially related to the achievement of that underlying objective. *Id.* at *6 (citing *Western States Paving,* 407 F.3d at 990 n. 6.).

The Court held that Caltrans' DBE program contains both race- and gender-conscious measures, and that the "entire program passes strict scrutiny." *Id.* at *6.

A. Application of Strict Scrutiny Standard Articulated in *Western States Paving*. The Court held that the framework for AGC's as-applied challenge to Caltrans' DBE program is governed by *Western States Paving.* The Ninth Circuit in *Western States Paving* devised a two-pronged test for narrow tailoring: (1) the state must establish the presence of discrimination within its transportation contracting industry, and (2) the remedial program must be "limited to those minority groups that have actually suffered discrimination." *Id.* at *7 (quoting *Western States Paving,* 407 F.3d at 997–99).

1. Evidence of discrimination in California contracting industry. The Court held that in Equal Protection cases, courts consider statistical and anecdotal evidence to identify the existence of discrimination. *Id.* at *7. The U.S. Supreme Court has suggested that a "significant statistical disparity" could be sufficient to justify race-conscious remedial programs. *Id.* at *7 (citing *City of Richmond v. J.A. Croson Co.,* 488 U.S. 469, 509 (1989)). The Court stated that although generally not sufficient, anecdotal evidence complements statistical evidence because of its ability to bring "the cold numbers convincingly to life." *Id.* at *7 (quoting *Int'l Bhd. of Teamsters v. United States,* 431 U.S. 324, 339 (1977)).

The Court pointed out that Washington DOT's DBE program in the *Western States Paving* case was held invalid because Washington DOT had performed no statistical studies and it offered no anecdotal evidence. *Id.* at *7. The Court also stated that the Washington DOT used an oversimplified methodology resulting in little weight being given by the Court to the purported disparity because Washington's data "did not account for the relative capacity of disadvantaged businesses to perform work, nor did it control for the fact that existing affirmative action programs skewed the prior utilization of minority businesses in the state." *Id.* at *7 (quoting *Western States Paving,* 407 F.3d at 999-1001). The Court said that it struck down Washington's program after determining that the record was devoid of any evidence suggesting that minorities currently suffer – or have ever suffered – discrimination in the Washington transportation contracting industry." *Id.* at *7.

Significantly, the Court held in this case as follows: "In contrast, Caltrans' affirmative action program is supported by substantial statistical and anecdotal evidence of discrimination in the California transportation contracting industry." *Id.* at *7. The Court noted that the disparity study documented disparities in many categories of transportation firms and the utilization of certain minority- and women-owned firms. *Id*. The Court found the disparity study "accounted for the factors mentioned

in *Western States Paving* as well as others, adjusting availability data based on capacity to perform work and controlling for previously administered affirmative action programs." Id. at *7 (citing *Western States,* 407 F.3d at 1000).

The Court also held: "Moreover, the statistical evidence from the disparity study is bolstered by anecdotal evidence supporting an inference of discrimination. The substantial statistical disparities alone would give rise to an inference of discrimination, *see Croson,* 488 U.S. at 509, and certainly Caltrans' statistical evidence combined with anecdotal evidence passes constitutional muster." *Id.* at *7.

The Court specifically rejected the argument by AGC that strict scrutiny requires Caltrans to provide evidence of "specific acts" of "deliberate" discrimination by Caltrans employees or prime contractors. *Id.* at *7-8. The Court found that the Supreme Court in *Croson* explicitly states that "[t]he degree of specificity required in the findings of discrimination … may vary." *Id.* at *8 (quoting *Croson*, 488 U.S. at 489). The Court concluded that a rule requiring a state to show specific acts of deliberate discrimination by identified individuals would run contrary to the statement in *Croson* that statistical disparities alone could be sufficient to support race-conscious remedial programs. *Id.* at *8 (citing *Croson*, 488 U.S. at 509). The Court rejected AGC's argument that Caltrans' program does not survive strict scrutiny because the disparity study does not identify individual acts of deliberate discrimination. *Id.* at *8.

The Court rejected a second argument by AGC that this study showed inconsistent results for utilization of minority businesses depending on the type and nature of the contract, and thus cannot support an inference of discrimination in the entire transportation contracting industry. *Id.* at *8. AGC argued that each of these subcategories of contracts must be viewed in isolation when considering whether an inference of discrimination arises, which the Court rejected. *Id.* The Court found that AGC's argument overlooks the rationale underpinning the constitutional justification for remedial race-conscious programs: they are designed to root out "patterns of discrimination." *Id.* at *8 *quoting Croson*, 488 U.S. at 504.

The Court stated that the issue is not whether Caltrans can show underutilization of disadvantaged businesses in *every* measured category of contract. But rather, the issue is whether Caltrans can meet the evidentiary standard required by *Western States Paving* if, looking at the evidence in its entirety, the data show substantial disparities in utilization of minority firms suggesting that public dollars are being poured into "a system of racial exclusion practiced by elements of the local construction industry." *Id.* at *8 *quoting Croson* 488 U.S. at 492.

The Court concluded that the disparity study and anecdotal evidence document a pattern of disparities for the four groups, and that the study found substantial underutilization of these groups in numerous categories of California transportation contracts, which the anecdotal evidence confirms. *Id.* at *8. The Court held this is sufficient to enable Caltrans to infer that these groups are systematically discriminated against in publicly-funded contracts. *Id.*

Third, the Court considered and rejected AGC's argument that the anecdotal evidence has little or no probative value in identifying discrimination because it is not verified. *Id.* at *9. The Court noted that the Fourth and Tenth Circuits have rejected the need to verify anecdotal evidence, and the Court stated the AGC made no persuasive argument that the Ninth Circuit should hold otherwise. *Id.*

The Court pointed out that AGC attempted to discount the anecdotal evidence because some accounts ascribe minority underutilization to factors other than overt discrimination, such as difficulties with obtaining bonding and breaking into the "good ole boy" network of contractors. *Id.* at *9. The Court held, however, that the federal courts and regulations have identified precisely these factors as barriers that disadvantage minority firms because of the lingering effects of discrimination. *Id.*, *citing Western States*, 407 and *AGCC II*, 950 F.2d at 1414.

The Court found that AGC ignores the many incidents of racial and gender discrimination presented in the anecdotal evidence. *Id.* at *9. The Court said that Caltrans does not claim, and the anecdotal evidence does not need to prove, that *every* minority-owned business is discriminated against. *Id.* at *9. The Court concluded: "It is enough that the anecdotal evidence supports Caltrans' statistical data showing a pervasive pattern of discrimination." *Id.* at *9. The individual accounts of discrimination offered by Caltrans, according to the Court, met this burden. *Id.*

Fourth, the Court rejected AGC's contention that Caltrans' evidence does not support an inference of discrimination against all women because gender-based disparities in the study are limited to white women. *Id.* at *9. AGC, the Court said, misunderstands the statistical techniques used in the disparity study, and that the study correctly isolates the effect of gender by limiting its data pool to white women, ensuring that statistical results for gender-based discrimination are not skewed by discrimination against minority women on account of their race. *Id.*

In addition, after AGC's early incorrect objections to the methodology, the research firm conducted a follow-up analysis of all women-owned firms that produced a disparity index of 59. *Id.* at *9. The Court held that this index is evidence of a substantial disparity that raises an inference of discrimination and is sufficient to support Caltrans' decision to include all women in its DBE program. *Id.* at *9.

2. Program tailored to groups who actually suffered discrimination. The Court pointed out that the second prong of the test articulated in *Western States Paving* requires that a DBE program be limited to those groups that actually suffered discrimination in the state's contracting industry. *Id.* at *9. The Court found Caltrans' DBE program is limited to those minority groups that have actually suffered discrimination. *Id.* at *10. The Court held that the 2007 disparity study showed systematic and substantial underutilization of African American-, Native American-, Asian-Pacific American-, and women-owned firms across a range of contract categories. *Id.* at *10. *Id.* These disparities, according to the Court, support an inference of discrimination against those groups. *Id.*

Caltrans concluded that the statistical evidence did not support an inference of a pattern of discrimination against Hispanic or Subcontinent Asian Americans. *Id.* at *10. California applied for and received a waiver from the US DOT in order to limit its 2009 program to African American, Native American, Asian-Pacific American, and women-owned firms. *Id.* The Court held that Caltrans' program "adheres precisely to the narrow tailoring requirements of *Western States*." *Id.*

The Court rejected the AGC contention that the DBE program is not narrowly tailored because it creates race-based preferences for all transportation-related contracts, rather than distinguishing between construction and engineering contracts. *Id.* at *10. The Court stated that AGC cited no case that requires a state preference program to provide separate goals for disadvantaged business participation on construction and engineering contracts. *Id.* The Court noted that to the contrary, the

federal guidelines for implementing the federal program instruct states *not* to separate different types of contracts. *Id.* The Court found there are "sound policy reasons to not require such parsing, including the fact that there is substantial overlap in firms competing for construction and engineering contracts, as prime *and* subcontractors." *Id.*

B. Consideration of race–neutral alternatives. The Court rejected the AGC assertion that Caltrans' program is not narrowly tailored because it failed to evaluate race-neutral measures before implementing the system of racial preferences, and stated the law imposes no such requirement. *Id.* at *10. The Court held that *Western States Paving* does not require states to independently meet this aspect of narrow tailoring, and instead focuses on whether the federal statute sufficiently considered race-neutral alternatives. *Id.* at *10.

Second, the Court found that even if this requirement does apply to Caltrans' program, narrow tailoring only requires "serious, good faith consideration of workable race-neutral alternatives." *Id.* at *10, citing *Grutter v. Bollinger,* 539 U.S. 306, 339 (2003). The Court found that the Caltrans program has considered an increasing number of race-neutral alternatives, and it rejected AGC's claim that Caltrans' program does not sufficiently consider race-neutral alternatives. *Id.* at *10.

C. Certification affidavits for Disadvantaged Business Enterprises. The Court rejected the AGC argument that Caltrans' program is not narrowly tailored because affidavits that applicants must submit to obtain certification as DBEs do not require applicants to assert they have suffered discrimination *in California. Id.* at *11. The Court held the certification process employed by Caltrans follows the process detailed in the federal regulations, and that this is an impermissible collateral attack on the facial validity of the Congressional Act authorizing the Federal DBE Program and the federal regulations promulgated by the U.S. DOT (The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, Pub.L.No. 109-59, § 1101(b), 119 Sect. 1144 (2005)). *Id.*

D. Application of program to mixed state- and federally-funded contracts. The Court also rejected AGC's challenge that Caltrans applies its program to transportation contracts funded by both federal and state money. *Id.* at *11. The Court held that this is another impermissible collateral attack on the federal program, which explicitly requires goals to be set for mix-funded contracts. *Id.*

Conclusion. The Court concluded that the AGC did not have standing, and that further, Caltrans' DBE program survives strict scrutiny by: 1) having a strong basis in evidence of discrimination within the California transportation contracting industry, and 2) being narrowly tailored to benefit only those groups that have actually suffered discrimination. *Id.* at *11. The Court then dismissed the appeal. *Id.*

2. Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation, et al., U.S.D.C., E.D. Cal. Civil Action No. S-09-1622, Slip Opinion (E.D. Cal. April 20, 2011), appeal dismissed based on standing, on other grounds Ninth Circuit held Caltrans' DBE Program constitutional, Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation, et al., _____ F. 3d _____, 2013 WL 1607239 (9th Cir. April 16, 2013)

This case involved a challenge by the Associated General Contractors of America, San Diego Chapter, Inc. ("AGC") against the California Department of Transportation ("Caltrans"), to the DBE program adopted by Caltrans implementing the Federal DBE Program at 49 C.F.R. Part 26. The AGC sought an injunction against Caltrans enjoining its use of the DBE program and declaratory relief from the court declaring the Caltrans DBE program to be unconstitutional.

Caltrans' DBE program set a 13.5 percent DBE goal for its federally-funded contracts. The 13.5 percent goal, as implemented by Caltrans, included utilizing half race-neutral means and half race-conscious means to achieve the goal. Slip Opinion Transcript at 42. Caltrans did not include all minorities in the race-conscious component of its goal, excluding Hispanic males and Subcontinent Asian American males. *Id.* at 42. Accordingly, the race-conscious component of the Caltrans DBE program applied only to African Americans, Native Americans, Asian Pacific Americans, and white women. *Id.*

Caltrans established this goal and its DBE program following a disparity study conducted by BBC Research & Consulting, which included gathering statistical and anecdotal evidence of race and gender disparities in the California construction industry. Slip Opinion Transcript at 42.

The parties filed motions for summary judgment. The district court issued its ruling at the hearing on the motions for summary judgment granting Caltrans' motion for summary judgment in support of its DBE program and denying the motion for summary judgment filed by the plaintiffs. Slip Opinion Transcript at 54. The court held Caltrans' DBE program applying and implementing the provisions of the Federal DBE Program is valid and constitutional. *Id.* at 56.

The district court analyzed Caltrans' implementation of the DBE program under the strict scrutiny doctrine and found the burden of justifying different treatment by ethnicity or gender is on the government. The district court applied the Ninth Circuit Court of Appeals ruling in *Western States Paving Company v. Washington State DOT*, 407 F.3d 983 (9th Cir. 2005). The court stated that the federal government has a compelling interest "in ensuring that its funding is not distributed in a manner that perpetuates the effects of either public or private discrimination within the transportation contracting industry." Slip Opinion Transcript at 43, *quoting Western States Paving*, 407 F.3d at 991, *citing City of Richmond v. J.A. Croson Company*, 488 U.S. 469 (1989).

The district court pointed out that the Ninth Circuit in *Western States Paving* and the Tenth Circuit Court of Appeals and the Eighth Circuit Court of Appeals have upheld the facial validity of the Federal DBE Program.

The district court stated that based on *Western States Paving*, the court is required to look at the Caltrans DBE program itself to see if there is a strong basis in evidence to show that Caltrans is acting for a proper purpose and if the program itself has been narrowly tailored. Slip Opinion Transcript at 45. The court concluded that narrow tailoring "does not require exhaustion of every conceivable race-neutral alternative, but it does require serious, good-faith consideration of workable race-neutral alternatives." Slip Opinion Transcript at 45.

The district court identified the issues as whether Caltrans has established a compelling interest supported by a strong basis in evidence for its program, and does Caltrans' race-conscious program meet the strict scrutiny required. Slip Opinion Transcript at 51-52. The court also phrased the issue as whether the Caltrans DBE program, "which does give preference based on race and sex, whether that program is narrowly tailored to remedy the effects of identified discrimination…", and whether Caltrans has complied with the Ninth Circuit's guidance in *Western States Paving*. Slip Opinion Transcript at 52.

The district court held "that Caltrans has done what the Ninth Circuit has required it to do, what the federal government has required it to do, and that it clearly has implemented a program which is supported by a strong basis in evidence that gives rise to a compelling interest, and that its race-conscious program, the aspect of the program that does implement race-conscious alternatives, it does under a strict-scrutiny standard meet the requirement that it be narrowly tailored as set forth in the case law." Slip Opinion Transcript at 52.

The court rejected the plaintiff's arguments that anecdotal evidence failed to identify specific acts of discrimination, finding "there are numerous instances of specific discrimination." Slip Opinion Transcript at 52. The district court found that after the *Western States Paving* case, Caltrans went to a racially neutral program, and the evidence showed that the program would not meet the goals of the federally-funded program, and the federal government became concerned about what was going on with Caltrans' program applying only race-neutral alternatives. *Id.* at 52-53. The court then pointed out that Caltrans engaged in an "extensive disparity study, anecdotal evidence, both of which is what was missing" in the *Western States Paving* case. *Id.* at 53.

The court concluded that Caltrans "did exactly what the Ninth Circuit required" and that Caltrans has gone "as far as is required." Slip Opinion Transcript at 53.

The court held that as a matter of law, the Caltrans DBE program is, under *Western States Paving* and the Supreme Court cases, "clearly constitutional," and "narrowly tailored." Slip Opinion Transcript at 56. The court found there are significant differences between Caltrans' program and the program in the *Western States Paving* case. *Id.* at 54-55. In *Western States Paving*, the court said there were no statistical studies performed to try and establish the discrimination in the highway contracting industry, and that Washington simply compared the proportion of DBE firms in the state with the percentage of contracting funds awarded to DBEs on race-neutral contracts to calculate a disparity. *Id.* at 55.

The district court stated that the Ninth Circuit in *Western States Paving* found this to be oversimplified and entitled to little weight "because it did not take into account factors that may affect the relative capacity of DBEs to undertake contracting work." Slip Opinion Transcript at 55. Whereas, the district court held the "disparity study used by Caltrans was much more comprehensive and

accounted for this and other factors." *Id.* at 55. The district noted that the State of Washington did not introduce any anecdotal information. The difference in this case, the district court found, "is that the disparity study includes both extensive statistical evidence, as well as anecdotal evidence gathered through surveys and public hearings, which support the statistical findings of the underutilization faced by DBEs without the DBE program. Add to that the anecdotal evidence submitted in support of the summary judgment motion as well. And this evidence before the Court clearly supports a finding that this program is constitutional." *Id.* at 56.

The court held that because "Caltrans' DBE program is based on substantial statistical and anecdotal evidence of discrimination in the California contracting industry and because the Court finds that it is narrowly tailored, the Court upholds the program as constitutional." Slip Opinion Transcript at 56.

The decision of the district court was appealed to the Ninth Circuit Court of Appeals. The Ninth Circuit dismissed the appeal based on lack of standing by the AGC, San Diego Chapter, but ruled on the merits on alternative grounds holding constitutional Caltrans' DBE Program. *See discussion above of AGC, SDC v. Cal. DOT.*

3. Western States Paving Co. v. Washington State DOT, 407 F.3d 983 (9th Cir. 2005), cert. denied, 546 U.S. 1170 (2006)

This case out of the Ninth Circuit struck down a state's implementation of the Federal DBE Program for failure to pass constitutional muster. In *Western States Paving*, the Ninth Circuit held that the State of Washington's implementation of the Federal DBE Program was unconstitutional because it did not satisfy the narrow tailoring element of the constitutional test. The Ninth Circuit held that the State must present its own evidence of past discrimination within its own boundaries in order to survive constitutional muster and could not merely rely upon data supplied by Congress. The United States Supreme Court denied certiorari. The analysis in the decision also is instructive in particular as to the application of the narrowly tailored prong of the strict scrutiny test.

Plaintiff Western States Paving Co. ("plaintiff") was a white male-owned asphalt and paving company. 407 F.3d 983, 987 (9th Cir. 2005). In July of 2000, plaintiff submitted a bid for a project for the City of Vancouver; the project was financed with federal funds provided to the Nevada DOT ("NDOT") under the Transportation Act for the 21st Century ("TEA-21"). *Id.*

Congress enacted TEA-21 in 1991 and after multiple renewals, it was set to expire on May 31, 2004. *Id.* at 988. TEA-21 established minimum minority-owned business participation requirements (10%) for certain federally-funded projects. *Id.* The regulations require each state accepting federal transportation funds to implement a DBE program that comports with the TEA-21. *Id.* TEA-21 indicates the 10 percent DBE utilization requirement is "aspirational," and the statutory goal "does not authorize or require recipients to set overall or contract goals at the 10 percent level, or any other particular level, or to take any special administrative steps if their goals are above or below 10 percent." *Id.*

TEA-21 sets forth a two-step process for a state to determine its own DBE utilization goal: (1) the state must calculate the relative availability of DBEs in its local transportation contracting industry (one way to do this is to divide the number of ready, willing and able DBEs in a state by the total number of ready, willing and able firms); and (2) the state is required to "adjust this base figure

upward or downward to reflect the proven capacity of DBEs to perform work (as measured by the volume of work allocated to DBEs in recent years) and evidence of discrimination against DBEs obtained from statistical disparity studies." *Id.* at 989 (citing regulation). A state is also permitted to consider discrimination in the bonding and financing industries and the present effects of past discrimination. *Id.* (citing regulation). TEA-21 requires a generalized, "undifferentiated" minority goal and a state is prohibited from apportioning their DBE utilization goal among different minority groups (*e.g.*, between Hispanics, blacks, and women). *Id.* at 990 (citing regulation).

"A state must meet the maximum feasible portion of this goal through race- [and gender-] neutral means, including informational and instructional programs targeted toward all small businesses." *Id.* (citing regulation). Race- and gender-conscious contract goals must be used to achieve any portion of the contract goals not achievable through race- and gender-neutral measures. *Id.* (citing regulation). However, TEA-21 does not require that DBE participation goals be used on every contract or at the same level on every contract in which they are used; rather, the overall effect must be to "obtain that portion of the requisite DBE participation that cannot be achieved through race- [and gender-] neutral means." *Id.* (citing regulation).

A prime contractor must use "good faith efforts" to satisfy a contract's DBE utilization goal. *Id.* (citing regulation). However, a state is prohibited from enacting rigid quotas that do not contemplate such good faith efforts. *Id.* (citing regulation).

Under the TEA-21 minority utilization requirements, the City set a goal of 14 percent minority participation on the first project plaintiff bid on; the prime contractor thus rejected plaintiff's bid in favor of a higher bidding minority-owned subcontracting firm. *Id.* at 987. In September of 2000, plaintiff again submitted a bid on a project financed with TEA-21 funds and was again rejected in favor of a higher bidding minority-owned subcontracting firm. *Id.* The prime contractor expressly stated that he rejected plaintiff's bid due to the minority utilization requirement. *Id.*

Plaintiff filed suit against the WSDOT, Clark County, and the City, challenging the minority preference requirements of TEA-21 as unconstitutional both facially and as applied. *Id.* The district court rejected both of plaintiff's challenges. The district court held the program was facially constitutional because it found that Congress had identified significant evidence of discrimination in the transportation contracting industry and the TEA-21 was narrowly tailored to remedy such discrimination. *Id.* at 988. The district court rejected the as-applied challenge concluding that Washington's implementation of the program comported with the federal requirements and the state was not required to demonstrate that its minority preference program independently satisfied strict scrutiny. *Id.* Plaintiff appealed to the Ninth Circuit Court of Appeals. *Id.*

The Ninth Circuit considered whether the TEA-21, which authorizes the use of race- and gender-based preferences in federally-funded transportation contracts, violated equal protection, either on its face or as applied by the State of Washington.

The court applied a strict scrutiny analysis to both the facial and as-applied challenges to TEA-21. *Id.* at 990-91. The court did not apply a separate intermediate scrutiny analysis to the gender-based classifications because it determined that it "would not yield a different result." *Id.* at 990, n. 6.

Facial challenge (Federal Government). The court first noted that the federal government has a compelling interest in "ensuring that its funding is not distributed in a manner that perpetuates the effects of either public or private discrimination within the transportation contracting industry." Id. at 991, citing *City of Richmond v. J.A. Croson Co*., 488 U.S. 469, 492 (1989) and *Adarand Constructors, Inc. v. Slater* ("Adarand VII"), 228 F.3d 1147, 1176 (10th Cir. 2000). The court found that "[b]oth statistical and anecdotal evidence are relevant in identifying the existence of discrimination." Id. at 991. The court found that although Congress did not have evidence of discrimination against minorities in every state, such evidence was unnecessary for the enactment of nationwide legislation. Id. However, citing both the Eighth and Tenth Circuits, the court found that Congress had ample evidence of discrimination in the transportation contracting industry to justify TEA-21. Id. The court also found that because TEA-21 set forth flexible race-conscious measures to be used only when race-neutral efforts were unsuccessful, the program was narrowly tailored and thus satisfied strict scrutiny. Id. at 992-93. The court accordingly rejected plaintiff's facial challenge. Id.

As-applied challenge (State of Washington). Plaintiff alleged TEA-21 was unconstitutional as-applied because there was no evidence of discrimination in Washington's transportation contracting industry. Id. at 995. The State alleged that it was not required to independently demonstrate that its application of TEA-21 satisfied strict scrutiny. Id. The United States intervened to defend TEA-21's facial constitutionality, and "unambiguously conceded that TEA-21's race conscious measures can be constitutionally applied only in those states where the effects of discrimination are present." Id. at 996; see also Br. for the United States at 28 (April 19, 2004) ("DOT's regulations … are designed to assist States in ensuring that race-conscious remedies are limited to only those jurisdictions where discrimination or its effects are a problem and only as a last resort when race-neutral relief is insufficient." (emphasis in original)).

The court found that the Eighth Circuit was the only other court to consider an as-applied challenge to TEA-21 in *Sherbrooke Turf, Inc. v. Minnesota DOT*, 345 F.3d 964 (8th Cir. 2003), *cert. denied* 124 S. Ct. 2158 (2004). *Id.* at 996. The Eighth Circuit did not require Minnesota and Nebraska to identify a compelling purpose for their programs independent of Congress's nationwide remedial objective. *Id.* However, the Eighth Circuit did consider whether the states' implementation of TEA-21 was narrowly tailored to achieve Congress's remedial objective. *Id.* The Eighth Circuit thus looked to the states' independent evidence of discrimination because "to be narrowly tailored, a *national* program must be limited to those parts of the country where its race-based measures are demonstrably needed." *Id.* (internal citations omitted). The Eighth Circuit relied on the states' statistical analyses of the availability and capacity of DBEs in their local markets conducted by outside consulting firms to conclude that the states satisfied the narrow tailoring requirement. *Id.* at 997.

The court concurred with the Eighth Circuit and found that Washington did not need to demonstrate a compelling interest for its DBE program, independent from the compelling nationwide interest identified by Congress. *Id.* However, the court determined that the district court erred in holding that mere compliance with the federal program satisfied strict scrutiny. *Id.* Rather, the court held that whether Washington's DBE program was narrowly tailored was dependent on the presence or absence of discrimination in Washington's transportation contracting industry. *Id.* at 997-98. "If no such discrimination is present in Washington, then the State's DBE program does not serve a remedial purpose; it instead provides an unconstitutional windfall to minority contractors solely on the basis of their race or sex." *Id.* at 998. The court held that a Sixth Circuit decision to the

contrary, *Tennessee Asphalt Co. v. Farris*, 942 F.2d 969, 970 (6th Cir. 1991), misinterpreted earlier case law. *Id.* at 997, n. 9.

The court found that moreover, even where discrimination is present in a state, a program is narrowly tailored only if it applies only to those minority groups who have actually suffered discrimination. *Id.* at 998, *citing Croson*, 488 U.S. at 478. The court also found that in *Monterey Mechanical Co. v. Wilson*, 125 F.3d 702, 713 (9th Cir. 1997), it had "previously expressed similar concerns about the haphazard inclusion of minority groups in affirmative action programs ostensibly designed to remedy the effects of discrimination." *Id.* In *Monterey Mechanical*, the court held that "the overly inclusive designation of benefited minority groups was a 'red flag signaling that the statute is not, as the Equal Protection Clause requires, narrowly tailored.'" *Id.*, *citing Monterey Mechanical*, 125 F.3d at 714. The court found that other courts are in accord. *Id.* at 998-99, *citing Builders Ass'n of Greater Chi. v. County of Cook*, 256 F.3d 642, 647 (7th Cir. 2001); *Associated Gen. Contractors of Ohio, Inc. v. Drabik*, 214 F.3d 730, 737 (6th Cir. 2000); *O'Donnell Constr. Co. v. District of Columbia*, 963 F.2d 420, 427 (D.C. Cir. 1992). Accordingly, the court found that each of the principal minority groups benefited by WSDOT's DBE program must have suffered discrimination within the State. *Id.* at 999.

The court found that WSDOT's program closely tracked the sample USDOT DBE program. *Id.* WSDOT calculated its DBE participation goal by first calculating the availability of ready, willing and able DBEs in the State (dividing the number of transportation contracting firms in the Washington State Office of Minority, Women and Disadvantaged Business Enterprises Directory by the total number of transportation contracting firms listed in the Census Bureau's Washington database, which equaled 11.17%). *Id.* WSDOT then upwardly adjusted the 11.17 percent base figure to 14 percent "to account for the proven capacity of DBEs to perform work, as reflected by the volume of work performed by DBEs [during a certain time period]." *Id.* Although DBEs performed 18 percent of work on State projects during the prescribed time period, Washington set the final adjusted figure at 14 percent because TEA-21 reduced the number of eligible DBEs in Washington by imposing more stringent certification requirements. *Id.* at 999, n. 11. WSDOT did not make an adjustment to account for discriminatory barriers in obtaining bonding and financing. *Id.* WSDOT similarly did not make any adjustment to reflect present or past discrimination "because it lacked any statistical studies evidencing such discrimination." *Id.*

WSDOT then determined that it needed to achieve 5 percent of its 14 percent goal through race-conscious means based on a 9 percent DBE participation rate on state-funded contracts that did not include affirmative action components (*i.e.*, 9% participation could be achieved through race-neutral means). *Id.* at 1000. The USDOT approved WSDOT goal-setting program and the totality of its 2000 DBE program. *Id.*

Washington conceded that it did not have statistical studies to establish the existence of past or present discrimination. *Id.* It argued, however, that it had evidence of discrimination because minority-owned firms had the capacity to perform 14 percent of the State's transportation contracts in 2000 but received only 9 percent of the subcontracting funds on contracts that did not include an affirmative action's component. *Id.* The court found that the State's methodology was flawed because the 14 percent figure was based on the earlier 18 percent figure, discussed *supra*, which included contracts with affirmative action components. *Id.* The court concluded that the 14 percent figure did

not accurately reflect the performance capacity of DBEs in a race-neutral market. *Id*. The court also found the State conceded as much to the district court. *Id.*

The court held that a disparity between DBE performance on contracts with an affirmative action component and those without "does not provide any evidence of discrimination against DBEs." *Id*. The court found that the only evidence upon which Washington could rely was the disparity between the proportion of DBE firms in the State (11.17%) and the percentage of contracts awarded to DBEs on race-neutral grounds (9%). *Id*. However, the court determined that such evidence was entitled to "little weight" because it did not take into account a multitude of other factors such as firm size. *Id.*

Moreover, the court found that the minimal statistical evidence was insufficient evidence, standing alone, of discrimination in the transportation contracting industry. *Id*. at 1001. The court found that WSDOT did not present any anecdotal evidence. *Id*. The court rejected the State's argument that the DBE applications themselves constituted evidence of past discrimination because the applications were not properly in the record, and because the applicants were not required to certify that they had been victims of discrimination in the contracting industry. *Id.* Accordingly, the court held that because the State failed to proffer evidence of discrimination within its own transportation contracting market, its DBE program was not narrowly tailored to Congress's compelling remedial interest. *Id.* at 1002-03.

The court affirmed the district court's grant on summary judgment to the United States regarding the facial constitutionality of TEA-21, reversed the grant of summary judgment to Washington on the as-applied challenge, and remanded to determine the State's liability for damages.

The dissent argued that where the State complied with TEA-21 in implementing its DBE program, it was not susceptible to an as-applied challenge.

4. Western States Paving Co. v. Washington DOT, US DOT & FHWA, 2006 WL 1734163 (W.D. Wash. June 23, 2006) (unpublished opinion)

This case was before the district court pursuant to the Ninth Circuit's remand order in *Western States Paving Co. Washington DOT, US DOT, and FHWA*, 407 F.3d 983 (9th Cir. 2005), *cert. denied*, 546 U.S. 1170 (2006). In this decision, the district court adjudicated cross Motions for Summary Judgment on plaintiff's claim for injunction and for damages under 42 U.S.C. §§1981, 1983, and §2000d.

Because the WSDOT voluntarily discontinued its DBE program after the Ninth Circuit decision, *supra*, the district court dismissed plaintiff's claim for injunctive relief as moot. The court found "it is absolutely clear in this case that WSDOT will not resume or continue the activity the Ninth Circuit found unlawful in *Western States*," and cited specifically to the informational letters WSDOT sent to contractors informing them of the termination of the program.

Second, the court dismissed Western States Paving's claims under 42 U.S.C. §§ 1981, 1983, and 2000d against Clark County and the City of Vancouver holding neither the City or the County acted with the requisite discriminatory intent. The court held the County and the City were merely implementing the WSDOT's unlawful DBE program and their actions in this respect were involuntary and required no independent activity. The court also noted that the County and the City were not parties to the precise discriminatory actions at issue in the case, which occurred due to the conduct of the "State defendants." Specifically, the WSDOT — and not the County or the City — developed the DBE program without sufficient anecdotal and statistical evidence, and improperly relied on the affidavits of contractors seeking DBE certification "who averred that they had been subject to 'general societal discrimination.'"

Third, the court dismissed plaintiff's 42 U.S.C. §§ 1981 and 1983 claims against WSDOT, finding them barred by the Eleventh Amendment sovereign immunity doctrine. However, the court allowed plaintiff's 42 U.S.C. §2000d claim to proceed against WSDOT because it was not similarly barred. The court held that Congress had conditioned the receipt of federal highway funds on compliance with Title VI (42 U.S.C. § 2000d et seq.) and the waiver of sovereign immunity from claims arising under Title VI. Section 2001 specifically provides that "a State shall not be immune under the Eleventh Amendment of the Constitution of the United States from suit in Federal court for a violation of … Title VI." The court held that this language put the WSDOT on notice that it faced private causes of action in the event of noncompliance.

The court held that WSDOT's DBE program was not narrowly tailored to serve a compelling government interest. The court stressed that discriminatory intent is an essential element of a plaintiff's claim under Title VI. The WSDOT argued that even if sovereign immunity did not bar plaintiff's §2000d claim, WSDOT could be held liable for damages because there was no evidence that WSDOT staff knew of or consciously considered plaintiff's race when calculating the annual utilization goal. The court held that since the policy was not "facially neutral" — and was in fact "specifically race conscious" — any resulting discrimination was therefore intentional, whether the reason for the classification was benign or its purpose remedial. As such, WSDOT's program was subject to strict scrutiny.

In order for the court to uphold the DBE program as constitutional, WSDOT had to show that the program served a compelling interest and was narrowly tailored to achieve that goal. The court found

that the Ninth Circuit had already concluded that the program was not narrowly tailored and the record was devoid of any evidence suggesting that minorities currently suffer or have suffered discrimination in the Washington transportation contracting industry. The court therefore denied WSDOT's Motion for Summary Judgment on the §2000d claim. The remedy available to Western States remains for further adjudication and the case is currently pending.

5. Monterey Mechanical v. Wilson, 125 F.3d 702 (9th Cir. 1997)

This case is instructive in that the Ninth Circuit analyzed and held invalid the enforcement of a MBE/WBE-type program. Although the program at issue utilized the term "goals" as opposed to "quotas," the Ninth Circuit rejected such a distinction, holding "[t]he relevant question is not whether a statute requires the use of such measures, but whether it authorizes or encourages them." The case also is instructive because it found the use of "goals" and the application of "good faith efforts" in connection with achieving goals to trigger strict scrutiny.

Monterey Mechanical Co. (the "plaintiff") submitted the low bid for a construction project for the California Polytechnic State University (the "University"). 125 F.3d 702, 704 (9th Cir. 1994). The University rejected the plaintiff's bid because the plaintiff failed to comply with a state statute requiring prime contractors on such construction projects to subcontract 23 percent of the work to MBE/WBEs or, alternatively, demonstrate good faith outreach efforts. *Id*. The plaintiff conducted good faith outreach efforts but failed to provide the requisite documentation; the awardee prime contractor did not subcontract any portion of the work to MBE/WBEs but did include documentation of good faith outreach efforts. *Id*.

Importantly, the University did not conduct a disparity study, and instead argued that because "the 'goal requirements' of the scheme '[did] not involve racial or gender quotas, set-asides or preferences,'" the University did not need a disparity study. *Id*. at 705. The plaintiff protested the contract award and sued the University's trustees, and a number of other individuals (collectively the "defendants") alleging the state law was violative of the Equal Protection Clause. *Id*. The district court denied the plaintiff's motion for an interlocutory injunction and the plaintiff appealed to the Ninth Circuit Court of Appeals. *Id*.

The defendants first argued that the statute was constitutional because it treated all general contractors alike, by requiring all to comply with the MBE/WBE participation goals. *Id*. at 708. The court held, however, that a minority or women business enterprise could satisfy the participation goals by allocating the requisite percentage of work to itself. *Id*. at 709. The court held that contrary to the district court's finding, such a difference was not *de minimis*. *Id*.

The defendant's also argued that the statute was not subject to strict scrutiny because the statute did not impose rigid quotas, but rather only required good faith outreach efforts. *Id*. at 710. The court rejected the argument finding that although the statute permitted awards to bidders who did not meet the percentage goals, "they are rigid in requiring precisely described and monitored efforts to attain those goals." *Id*. The court cited its own earlier precedent to hold that "the provisions are not immunized from scrutiny because they purport to establish goals rather than quotas … [T]he relevant question is not whether a statute requires the use of such measures, but whether it authorizes or encourages them." *Id*. at 710-11 (internal citations and quotations omitted). The court found that the

statute encouraged set asides and cited *Concrete Works of Colorado v. Denver*, 36 F.3d 1512 (10th Cir. 1994), as analogous support for the proposition. *Id.* at 711.

The court found that the statute treated contractors differently based upon their race, ethnicity and gender, and although "worded in terms of goals and good faith, the statute imposes mandatory requirements with concreteness." *Id.* The court also noted that the statute may impose additional compliance expenses upon non-MBE/WBE firms who are required to make good faith outreach efforts (*e.g.*, advertising) to MBE/WBE firms. *Id.* at 712.

The court then conducted strict scrutiny (race), and an intermediate scrutiny (gender) analyses. *Id.* at 712-13. The court found the University presented "no evidence" to justify the race- and gender-based classifications and thus did not consider additional issues of proof. *Id.* at 713. The court found that the statute was not narrowly tailored because the definition of "minority" was overbroad (*e.g.*, inclusion of Aleuts). *Id.* at 714, *citing Wygant v. Jackson Board of Education*, 476 U.S. 267, 284, n. 13 (1986) and *City of Richmond v. J.A. Croson, Co.*, 488 U.S. 469, 505-06 (1989). The court found "[a] broad program that sweeps in all minorities with a remedy that is in no way related to past harms cannot survive constitutional scrutiny." *Id.* at 714, *citing Hopwood v. State of Texas*, 78 F.3d 932, 951 (5th Cir. 1996). The court held that the statute violated the Equal Protection Clause.

6. Associated Gen. Contractors of California, Inc. v. Coalition for Econ. Equity ("AGCC"), 950 F.2d 1401 (9th Cir. 1991)

In *Associated Gen. Contractors of California, Inc. v. Coalition for Econ. Equity ("AGCC")*, the Ninth Circuit Court of Appeals denied plaintiffs request for preliminary injunction to enjoin enforcement of the city's bid preference program. 950 F.2d 1401 (9th Cir. 1991). Although an older case, *AGCC* is instructive as to the analysis conducted by the Ninth Circuit. The court discussed the utilization of statistical evidence and anecdotal evidence in the context of the strict scrutiny analysis. *Id.* at 1413-18.

The City of San Francisco adopted an ordinance in 1989 providing bid preferences to prime contractors who were members of groups found disadvantaged by previous bidding practices, and specifically provided a 5 percent bid preference for LBEs, WBEs and MBEs. 950 F.2d at 1405. Local MBEs and WBEs were eligible for a 10 percent total bid preference, representing the cumulative total of the five percent preference given Local Business Enterprises ("LBEs") and the 5 percent preference given MBEs and WBEs. *Id.* The ordinance defined "MBE" as an economically disadvantaged business that was owned and controlled by one or more minority persons, which were defined to include Asian, blacks and Latinos. "WBE" was defined as an economically disadvantaged business that was owned and controlled by one or more women. Economically disadvantaged was defined as a business with average gross annual receipts that did not exceed $14 million. *Id.*

The Motion for Preliminary Injunction challenged the constitutionality of the MBE provisions of the 1989 Ordinance insofar as it pertained to Public Works construction contracts. *Id.* at 1405. The district court denied the Motion for Preliminary Injunction on the AGCC's constitutional claim on the ground that AGCC failed to demonstrate a likelihood of success on the merits. *Id.* at 1412.

The Ninth Circuit Court of Appeals applied the strict scrutiny analysis following the decision of the U.S. Supreme Court in *City of Richmond v. Croson.* The court stated that according to the U.S. Supreme Court in *Croson*, a municipality has a compelling interesting in redressing, not only discrimination

committed by the municipality itself, but also discrimination committed by private parties within the municipalities' legislative jurisdiction, so long as the municipality in some way perpetuated the discrimination to be remedied by the program. *Id*. at 1412-13, *citing Croson* at 488 U.S. at 491-92, 537-38. To satisfy this requirement, "the governmental actor need not be an active perpetrator of such discrimination; passive participation will satisfy this sub-part of strict scrutiny review." *Id*. at 1413, *quoting Coral Construction Company v. King County*, 941 F.2d 910 at 916 (9th Cir. 1991). In addition, the [m]ere infusion of tax dollars into a discriminatory industry may be sufficient governmental involvement to satisfy this prong." *Id*. at 1413 *quoting Coral Construction*, 941 F.2d at 916.

The court pointed out that the City had made detailed findings of prior discrimination in construction and building within its borders, had testimony taken at more than ten public hearings and received numerous written submissions from the public as part of its anecdotal evidence. *Id*. at 1414. The City Departments continued to discriminate against MBEs and WBEs and continued to operate under the "old boy network" in awarding contracts, thereby disadvantaging MBEs and WBEs. *Id*. And, the City found that large statistical disparities existed between the percentage of contracts awarded to MBEs and the percentage of available MBEs. 950 F.2d at 1414. The court stated the City also found "discrimination in the private sector against MBEs and WBEs that is manifested in and exacerbated by the City's procurement practices." *Id*. at 1414.

The Ninth Circuit found the study commissioned by the City indicated the existence of large disparities between the award of city contracts to available non-minority businesses and to MBEs. *Id*. at 1414. Using the City and County of San Francisco as the "relevant market," the study compared the number of available MBE prime construction contractors in San Francisco with the amount of contract dollars awarded by the City to San Francisco-based MBEs for a particular year. *Id*. at 1414. The study found that available MBEs received far fewer city contracts in proportion to their numbers than their available non-minority counterparts. *Id*. Specifically, the study found that with respect to prime construction contracting, disparities between the number of available local Asian-, black- and Hispanic-owned firms and the number of contracts awarded to such firms were statistically significant and supported an inference of discrimination. *Id*. For example, in prime contracting for construction, although MBE availability was determined to be at 49.5 percent, MBE dollar participation was only 11.1 percent. *Id*. The Ninth Circuit stated than in its decision in *Coral Construction*, it emphasized that such statistical disparities are "an invaluable tool and demonstrating the discrimination necessary to establish a compelling interest. *Id*. at 1414, *citing* to *Coral Construction*, 941 F.2d at 918 and *Croson*, 488 U.S. at 509.

The court noted that the record documents a vast number of individual accounts of discrimination, which bring "the cold numbers convincingly to life. *Id*. at 1414, *quoting Coral Construction*, 941 F.2d at 919. These accounts include numerous reports of MBEs being denied contracts despite being the low bidder, MBEs being told they were not qualified although they were later found qualified when evaluated by outside parties, MBEs being refused work even after they were awarded contracts as low bidder, and MBEs being harassed by city personnel to discourage them from bidding on city contracts. *Id* at 1415. The City pointed to numerous individual accounts of discrimination, that an "old boy network" still exists, and that racial discrimination is still prevalent within the San Francisco construction industry. *Id*. The court found that such a "combination of convincing anecdotal and statistical evidence is potent." *Id*. at 1415 *quoting Coral Construction*, 941 F.2d at 919.

The court also stated that the 1989 Ordinance applies only to resident MBEs. The City, therefore, according to the court, appropriately confined its study to the city limits in order to focus on those whom the preference scheme targeted. *Id.* at 1415. The court noted that the statistics relied upon by the City to demonstrate discrimination in its contracting processes considered only MBEs located within the City of San Francisco. *Id.*

The court pointed out the City's findings were based upon dozens of specific instances of discrimination that are laid out with particularity in the record, as well as the significant statistical disparities in the award of contracts. The court noted that the City must simply demonstrate the existence of past discrimination with specificity, but there is no requirement that the legislative findings specifically detail each and every incidence that the legislative body has relied upon in support of this decision that affirmative action is necessary. *Id.* at 1416.

In its analysis of the "narrowly tailored" requirement, the court focused on three characteristics identified by the decision in *Croson* as indicative of narrow tailoring. First, an MBE program should be instituted either after, or in conjunction with, race-neutral means of increasing minority business participation in public contracting. *Id.* at 1416. Second, the plan should avoid the use of "rigid numerical quotas." *Id.* According to the Supreme Court, systems that permit waiver in appropriate cases and therefore require some individualized consideration of the applicants pose a lesser danger of offending the Constitution. *Id.* Mechanisms that introduce flexibility into the system also prevent the imposition of a disproportionate burden on a few individuals. *Id.* Third, "an MBE program must be limited in its effective scope to the boundaries of the enacting jurisdiction. *Id.* at 1416 *quoting Coral Construction*, 941 F.2d at 922.

The court found that the record showed the City considered, but rejected as not viable, specific race-neutral alternatives including a fund to assist newly established MBEs in meeting bonding requirements. The court stated that "while strict scrutiny requires serious, good faith consideration of race-neutral alternatives, strict scrutiny does not require exhaustion of every possible such alternative … however irrational, costly, unreasonable, and unlikely to succeed such alternative may be." *Id.* at 1417 *quoting Coral Construction*, 941 F2d at 923. The court found the City ten years before had attempted to eradicate discrimination in city contracting through passage of a race-neutral ordinance that prohibited city contractors from discriminating against their employees on the basis of race and required contractors to take steps to integrate their work force; and that the City made and continues to make efforts to enforce the anti-discrimination ordinance. *Id.* at 1417. The court stated inclusion of such race-neutral measures is one factor suggesting that an MBE plan is narrowly tailored. *Id.* at 1417.

The court also found that the Ordinance possessed the requisite flexibility. Rather than a rigid quota system, the City adopted a more modest system according to the court, that of bid preferences. *Id.* at 1417. The court pointed out that there were no goals, quotas, or set-asides and moreover, the plan remedies only specifically identified discrimination: the City provides preferences only to those minority groups found to have previously received a lower percentage of specific types of contracts than their availability to perform such work would suggest. *Id.* at 1417.

The court rejected the argument of AGCC that to pass constitutional muster any remedy must provide redress only to specific individuals who have been identified as victims of discrimination. *Id.* at 1417, n. 12. The Ninth Circuit agreed with the district court that an iron-clad requirement limiting

any remedy to individuals personally proven to have suffered prior discrimination would render any race-conscious remedy "superfluous," and would thwart the Supreme Court's directive in *Croson* that race-conscious remedies may be permitted in some circumstances. *Id.* at 1417, n. 12. The court also found that the burdens of the bid preferences on those not entitled to them appear "relatively light and well distributed." *Id.* at 1417. The court stated that the Ordinance was "limited in its geographical scope to the boundaries of the enacting jurisdiction. *Id.* at 1418, *quoting Coral Construction*, 941 F.2d at 925. The court found that San Francisco had carefully limited the ordinance to benefit only those MBEs located within the City's borders. *Id.* 1418.

7. Coral Construction Co. v. King County, 941 F.2d 910 (9th Cir. 1991)

In *Coral Construction Co. v. King County*, 941 F.2d 910 (9th Cir. 1991), the Ninth Circuit examined the constitutionality of King County, Washington's minority and women business set-aside program in light of the standard set forth in *City of Richmond v. J.A. Croson Co.* The court held that although the County presented ample anecdotal evidence of disparate treatment of MBE contractors and subcontractors, the total absence of pre-program enactment statistical evidence was problematic to the compelling government interest component of the strict scrutiny analysis. The court remanded to the district court for a determination of whether the post-program enactment studies constituted a sufficient compelling government interest. Per the narrow tailoring prong of the strict scrutiny test, the court found that although the program included race-neutral alternative measures and was flexible (*i.e.*, included a waiver provision), the over breadth of the program to include MBEs outside of King County was fatal to the narrow tailoring analysis.

The court also remanded on the issue of whether the plaintiffs were entitled to damages under 42 U.S.C. §§ 1981 and 1983, and in particular to determine whether evidence of causation existed. With respect to the WBE program, the court held the plaintiff had standing to challenge the program, and applying the intermediate scrutiny analysis, held the WBE program survived the facial challenge.

In finding the absence of any statistical data in support of the County's MBE Program, the court made it clear that statistical analyses have served and will continue to serve an important role in cases in which the existence of discrimination is a disputed issue. 941 F.2d at 918. The court noted that it has repeatedly approved the use of statistical proof to establish a prima facie case of discrimination. *Id.* The court pointed out that the U.S. Supreme Court in *Croson* held that where "gross statistical disparities can be shown, they alone may in a proper case constitute prima facie proof of a pattern or practice of discrimination." *Id.* at 918, *quoting Hazelwood School Dist. v. United States*, 433 U.S. 299, 307-08, and *Croson*, 488 U.S. at 501.

The court points out that statistical evidence may not fully account for the complex factors and motivations guiding employment decisions, many of which may be entirely race-neutral. *Id.* at 919. The court noted that the record contained a plethora of anecdotal evidence, but that anecdotal evidence, standing alone, suffers the same flaws as statistical evidence. *Id.* at 919. While anecdotal evidence may suffice to prove individual claims of discrimination, rarely, according to the court, if ever, can such evidence show a systemic pattern of discrimination necessary for the adoption of an affirmative action plan. *Id.*

Nonetheless, the court held that the combination of convincing anecdotal and statistical evidence is potent. *Id.* at 919. The court pointed out that individuals who testified about their personal

experiences brought the cold numbers of statistics "convincingly to life." *Id*. at 919, *quoting International Brotherhood of Teamsters v. United States*, 431 U.S 324, 339 (1977). The court also pointed out that the Eleventh Circuit Court of Appeals, in passing upon a minority set aside program similar to the one in King County, concluded that the testimony regarding complaints of discrimination combined with the gross statistical disparities uncovered by the County studies provided more than enough evidence on the question of prior discrimination and need for racial classification to justify the denial of a Motion for Summary Judgment. *Id*. at 919, *citing Cone Corp. v. Hillsborough County*, 908 F.2d 908, 916 (11th Cir. 1990).

The court found that the MBE Program of the County could not stand without a proper statistical foundation. *Id*. at 919. The court addressed whether post-enactment studies done by the County of a statistical foundation could be considered by the court in connection with determining the validity of the County MBE Program. The court held that a municipality must have *some* concrete evidence of discrimination in a particular industry before it may adopt a remedial program. *Id*. at 920. However, the court said this requirement of *some* evidence does not mean that a program will be automatically struck down if the evidence before the municipality at the time of enactment does not completely fulfill both prongs of the strict scrutiny test. *Id*. Rather, the court held, the factual predicate for the program should be evaluated based upon all evidence presented to the district court, whether such evidence was adduced before or after enactment of the MBE Program. *Id*. Therefore, the court adopted a rule that a municipality should have before it some evidence of discrimination before adopting a race-conscious program, while allowing post-adoption evidence to be considered in passing on the constitutionality of the program. *Id*.

The court, therefore, remanded the case to the district court for determination of whether the consultant studies that were performed after the enactment of the MBE Program could provide an adequate factual justification to establish a "propelling government interest" for King County's adopting the MBE Program. *Id*. at 922.

The court also found that *Croson* does not require a showing of active discrimination by the enacting agency, and that passive participation, such as the infusion of tax dollars into a discriminatory industry, suffices. *Id*. at 922, *citing Croson*, 488 U.S. at 492. The court pointed out that the Supreme Court in *Croson* concluded that if the City had evidence before it, that non-minority contractors were systematically excluding minority businesses from subcontracting opportunities, it could take action to end the discriminatory exclusion. *Id*. at 922. The court points out that if the record ultimately supported a finding of systemic discrimination, the County adequately limited its program to those businesses that receive tax dollars, and the program imposed obligations upon only those businesses which voluntarily sought King County tax dollars by contracting with the County. *Id*.

The court addressed several factors in terms of the narrowly tailored analysis, and found that first, an MBE program should be instituted either after, or in conjunction with, race-neutral means of increasing minority business participation and public contracting. *Id*. at 922, *citing* Croson, 488 U.S. at 507. The second characteristic of the narrowly-tailored program, according to the court, is the use of minority utilization goals on a case-by-case basis, rather than upon a system of rigid numerical quotas. *Id*. Finally, the court stated that an MBE program must be limited in its effective scope to the boundaries of the enacting jurisdiction. *Id*.

Among the various narrowly tailored requirements, the court held consideration of race-neutral alternatives is among the most important. *Id*. at 922. Nevertheless, the court stated that while strict scrutiny requires serious, good faith consideration of race-neutral alternatives, strict scrutiny does not require exhaustion of every possible such alternative. *Id*. at 923. The court noted that it does not intend a government entity exhaust *every* alternative, however irrational, costly, unreasonable, and unlikely to succeed such alternative might be. *Id*. Thus, the court required only that a state exhausts race-neutral measures that the state is authorized to enact, and that have a reasonable possibility of being effective. *Id*. The court noted in this case the County considered alternatives, but determined that they were not available as a matter of law. *Id*. The County cannot be required to engage in conduct that may be illegal, nor can it be compelled to expend precious tax dollars on projects where potential for success is marginal at best. *Id*.

The court noted that King County had adopted some race-neutral measures in conjunction with the MBE Program, for example, hosting one or two training sessions for small businesses, covering such topics as doing business with the government, small business management, and accounting techniques. *Id*. at 923. In addition, the County provided information on assessing Small Business Assistance Programs. *Id*. The court found that King County fulfilled its burden of considering race-neutral alternative programs. *Id*.

A second indicator of a program's narrowly tailoring is program flexibility. *Id*. at 924. The court found that an important means of achieving such flexibility is through use of case-by-case utilization goals, rather than rigid numerical quotas or goals. *Id*. at 924. The court pointed out that King County used a "percentage preference" method, which is not a quota, and while the preference is locked at five percent, such a fixed preference is not unduly rigid in light of the waiver provisions. The court found that a valid MBE Program should include a waiver system that accounts for both the availability of qualified MBEs and whether the qualified MBEs have suffered from the effects of past discrimination by the County or prime contractors. *Id*. at 924. The court found that King County's program provided waivers in both instances, including where neither minority nor a woman's business is available to provide needed goods or services and where available minority and/or women's businesses have given price quotes that are unreasonably high. *Id*.

The court also pointed out other attributes of the narrowly tailored and flexible MBE program, including a bidder that does not meet planned goals, may nonetheless be awarded the contract by demonstrating a good faith effort to comply. *Id*. The actual percentages of required MBE participation are determined on a case-by-case basis. Levels of participation may be reduced if the prescribed levels are not feasible, if qualified MBEs are unavailable, or if MBE price quotes are not competitive. *Id*.

The court concluded that an MBE program must also be limited in its geographical scope to the boundaries of the enacting jurisdiction. *Id*. at 925. Here the court held that King County's MBE program fails this third portion of "narrowly tailored" requirement. The court found the definition of "minority business" included in the Program indicated that a minority-owned business may qualify for preferential treatment if the business has been discriminated against in the particular geographical areas in which it operates. The court held this definition as overly broad. *Id*. at 925. The court held that the County should ask the question whether a business has been discriminated against in King County. *Id*. This determination, according to the court, is not an insurmountable burden for the

County, as the rule does not require finding specific instances of discriminatory exclusion for each MBE. *Id*. Rather, if the County successfully proves malignant discrimination within the King County business community, an MBE would be presumptively eligible for relief if it had previously sought to do business in the County. *Id*.

In other words, if systemic discrimination in the County is shown, then it is fair to presume that an MBE was victimized by the discrimination. *Id*. at 925. For the presumption to attach to the MBE, however, it must be established that the MBE is, or attempted to become, an active participant in the County's business community. *Id*. Because King County's program permitted MBE participation even by MBEs that have no prior contact with King County, the program was overbroad to that extent. *Id*. Therefore, the court reversed the grant of summary judgment to King County on the MBE program on the basis that it was geographically overbroad.

The court considered the gender-specific aspect of the MBE program. The court determined the degree of judicial scrutiny afforded gender-conscious programs was intermediate scrutiny, rather than strict scrutiny. *Id*. at 930. Under intermediate scrutiny, gender-based classification must serve an important governmental objective, and there must be a direct, substantial relationship between the objective and the means chosen to accomplish the objective. *Id*. at 931.

In this case, the court concluded, that King County's WBE preference survived a facial challenge. *Id*. at 932. The court found that King County had a legitimate and important interest in remedying the many disadvantages that confront women business owners and that the means chosen in the program were substantially related to the objective. *Id*. The court found the record adequately indicated discrimination against women in the King County construction industry, noting the anecdotal evidence including an affidavit of the president of a consulting engineering firm. *Id*. at 933. Therefore, the court upheld the WBE portion of the MBE program and affirmed the district court's grant of summary judgment to King County for the WBE program.

E. Recent Decisions Involving the Federal DBE Program and its Implementation in Other Jurisdictions

There are several recent and pending cases involving challenges to the United States Federal DBE Program and its implementation by the states and their governmental entities for federally-funded projects. These cases could have a significant impact on the nature and provisions of contracting and procurement on federally-funded projects, including and relating to the utilization of DBEs. In addition, these cases provide an instructive analysis of the recent application of the strict scrutiny test to MBE/WBE- and DBE-type programs.

1. Northern Contracting, Inc. v. Illinois, 473 F.3d 715 (7th Cir. 2007)

In *Northern Contracting, Inc. v. Illinois*, the Seventh Circuit affirmed the district court decision upholding the validity and constitutionality of the Illinois Department of Transportation's ("IDOT") DBE Program. Plaintiff Northern Contracting Inc. ("NCI") was a white male-owned construction company specializing in the construction of guardrails and fences for highway construction projects in Illinois. 473 F.3d 715, 717 (7th Cir. 2007). Initially, NCI challenged the constitutionality of both the federal regulations and the Illinois statute implementing these regulations. *Id*. at 719. The district court granted the USDOT's Motion for Summary Judgment, concluding that the federal government

had demonstrated a compelling interest and that TEA-21 was sufficiently narrowly tailored. NCI did not challenge this ruling and thereby forfeited the opportunity to challenge the federal regulations. *Id.* at 720. NCI also forfeited the argument that IDOT's DBE program did not serve a compelling government interest. *Id*. The sole issue on appeal to the Seventh Circuit was whether IDOT's program was narrowly tailored. *Id.*

IDOT typically adopted a new DBE plan each year. *Id*. at 718. In preparing for Fiscal Year 2005, IDOT retained a consulting firm to determine DBE availability. *Id*. The consultant first identified the relevant geographic market (Illinois) and the relevant product market (transportation infrastructure construction). *Id*. The consultant then determined availability of minority- and women-owned firms through analysis of Dun & Bradstreet's Marketplace data. *Id*. This initial list was corrected for errors in the data by surveying the D&B list. *Id*. In light of these surveys, the consultant arrived at a DBE availability of 22.77 percent. *Id*. The consultant then ran a regression analysis on earnings and business information and concluded that in the absence of discrimination, relative DBE availability would be 27.5 percent. *Id*. IDOT considered this, along with other data, including DBE utilization on IDOTs "zero goal" experiment conducted in 2002 to 2003, in which IDOT did not use DBE goals on 5 percent of its contracts (1.5% utilization) and data of DBE utilization on projects for the Illinois State Toll Highway Authority which does not receive federal funding and whose goals are completely voluntary (1.6% utilization). *Id*. at 719. On the basis of all of this data, IDOT adopted a 22.77 percent goal for 2005. *Id.*

Despite the fact the NCI forfeited the argument that IDOT's DBE program did not serve a compelling state interest, the Seventh Circuit briefly addressed the compelling interest prong of the strict scrutiny analysis, noting that IDOT had satisfied its burden. *Id.* at 720. The court noted that, post-*Adarand*, two other circuits have held that a state may rely on the federal government's compelling interest in implementing a local DBE plan. *Id*. at 720-21, *citing Western States Paving Co., Inc. v. Washington State DOT*, 407 F.3d 983, 987 (9th Cir. 2005), *cert. denied*, 126 S.Ct. 1332 (Feb. 21, 2006) and *Sherbrooke Turf, Inc. v. Minnesota DOT*, 345 F.3d 964, 970 (8th Cir. 2003), *cert. denied*, 541 U.S. 1041 (2004). The court stated that NCI had not articulated any reason to break ranks from the other circuits and explained that "[i]nsofar as the state is merely complying with federal law it is acting as the agent of the federal government …. If the state does exactly what the statute expects it to do, and the statute is conceded for purposes of litigation to be constitutional, we do not see how the state can be thought to have violated the Constitution." *Id*. at 721, *quoting Milwaukee County Pavers Association v. Fielder*, 922 F.2d 419, 423 (7th Cir. 1991). The court did not address whether IDOT had an independent interest that could have survived constitutional scrutiny.

In addressing the narrowly tailored prong with respect to IDOT's DBE program, the court held that IDOT had complied. *Id.* The court concluded its holding in *Milwaukee* that a state is insulated from a constitutional attack absent a showing that the state exceeded its federal authority remained applicable. *Id.* at 721-22. The court noted that the Supreme Court in *Adarand Constructors v. Pena*, 515 U.S. 200 (1995) did not seize the opportunity to overrule that decision, explaining that the Court did not invalidate its conclusion that a challenge to a state's application of a federally mandated program must be limited to the question of whether the state exceeded its authority. *Id.* at 722.

The court further clarified the *Milwaukee* opinion in light of the interpretations of the opinions offered in by the Ninth Circuit in *Western States* and Eighth Circuit in *Sherbrooke. Id.* The court stated

that the Ninth Circuit in *Western States* misread the *Milwaukee* decision in concluding that *Milwaukee* did not address the situation of an as-applied challenge to a DBE program. *Id.* at 722, n. 5. Relatedly, the court stated that the Eighth Circuit's opinion in *Sherbrooke* (that the *Milwaukee* decision was compromised by the fact that it was decided under the prior law "when the 10 percent federal set-aside was more mandatory") was unconvincing since all recipients of federal transportation funds are still required to have compliant DBE programs. *Id.* at 722. Federal law makes more clear now that the compliance could be achieved even with no DBE utilization if that were the result of a good faith use of the process. *Id.* at 722, n. 5. The court stated that IDOT in this case was acting as an instrument of federal policy and NCI's collateral attack on the federal regulations was impermissible. *Id.* at 722.

The remainder of the court's opinion addressed the question of whether IDOT exceeded its grant of authority under federal law, and held that all of NCI's arguments failed. *Id.* First, NCI challenged the method by which the local base figure was calculated, the first step in the goal-setting process. *Id.* NCI argued that the number of registered and prequalified DBEs in Illinois should have simply been counted. *Id.* The court stated that while the federal regulations list several examples of methods for determining the local base figure, *Id.* at 723, these examples are not intended as an exhaustive list. The court pointed out that the fifth item in the list is entitled "Alternative Methods," and states: "You may use other methods to determine a base figure for your overall goal. Any methodology you choose must be based on demonstrable evidence of local market conditions and be designated to ultimately attain a goal that is rationally related to the relative availability of DBEs in your market." *Id.* (*citing* 49 C.F.R. § 26.45(c)(5)). According to the court, the regulations make clear that "relative availability" means "the availability of ready, willing and able DBEs relative to all business ready, willing, and able to participate" on DOT contracts. *Id.* The court stated NCI pointed to nothing in the federal regulations that indicated that a recipient must so narrowly define the scope of the ready, willing, and available firms to a simple count of the number of registered and prequalified DBEs. *Id.* The court agreed with the district court that the remedial nature of the federal scheme militates in favor of a method of DBE availability calculation that casts a broader net. *Id.*

Second, NCI argued that the IDOT failed to properly adjust its goal based on local market conditions. *Id.* The court noted that the federal regulations do not require any adjustments to the base figure, but simply provide recipients with authority to make such adjustments if necessary. *Id.* According to the court, NCI failed to identify any aspect of the regulations requiring IDOT to separate prime contractor availability from subcontractor availability, and pointed out that the regulations require the local goal to be focused on overall DBE participation. *Id.*

Third, NCI contended that IDOT violated the federal regulations by failing to meet the maximum feasible portion of its overall goal through race-neutral means of facilitating DBE participation. *Id.* at 723-24. NCI argued that IDOT should have considered DBEs who had won subcontracts on goal projects where the prime contractor did not consider DBE status, instead of only considering DBEs who won contracts on no-goal projects. *Id.* at 724. The court held that while the regulations indicate that where DBEs win subcontracts on goal projects strictly through low bid this can be counted as race-neutral participation, the regulations did not require IDOT to search for this data, for the purpose of calculating past levels of race-neutral DBE participation. *Id.* According to the court, the record indicated that IDOT used nearly all the methods described in the regulations to maximize the portion of the goal that will be achieved through race-neutral means. *Id.*

The court affirmed the decision of the district court upholding the validity of the IDOT DBE program and found that it was narrowly tailored to further a compelling governmental interest. *Id.*

2. Northern Contracting, Inc. v. Illinois, 2005 WL 2230195 (N.D. Ill. Sept. 8, 2005), aff'd 473 F.3d 715 (7th Cir. 2007)

This decision is the district court's order that was affirmed by the Seventh Circuit Court of Appeals. This decision is instructive in that it is one of the recent cases to address the validity of the Federal DBE Program and local and state governments' implementation of the program as recipients of federal funds. The case also is instructive in that the court set forth a detailed analysis of race-, ethnicity-, and gender-neutral measures as well as evidentiary data required to satisfy constitutional scrutiny.

The district court conducted a trial after denying the parties' Motions for Summary Judgment in *Northern Contracting, Inc. v. State of Illinois, Illinois DOT, and USDOT*, 2004 WL 422704 (N.D. Ill. March 3, 2004), discussed *infra.* The following summarizes the opinion of the district court.

Northern Contracting, Inc. (the "plaintiff"), an Illinois highway contractor, sued the State of Illinois, the Illinois DOT, the United States DOT, and federal and state officials seeking a declaration that federal statutory provisions, the federal implementing regulations ("TEA-21"), the state statute authorizing the DBE program, and the Illinois DBE program itself were unlawful and unconstitutional. 2005 WL 2230195 at *1 (N.D. Ill. Sept, 8, 2005).

Under TEA-21, a recipient of federal funds is required to meet the "maximum feasible portion" of its DBE goal through race-neutral means. *Id.* at *4 (citing regulations). If a recipient projects that it cannot meet its overall DBE goal through race-neutral means, it must establish contract goals to the extent necessary to achieve the overall DBE goal. *Id.* (citing regulation). [The court provided an overview of the pertinent regulations including compliance requirements and qualifications for DBE status.]

Statistical evidence. To calculate its 2005 DBE participation goals, IDOT followed the two-step process set forth in TEA-21: (1) calculation of a base figure for the relative availability of DBEs, and (2) consideration of a possible adjustment of the base figure to reflect the effects of the DBE program and the level of participation that would be expected but for the effects of past and present discrimination. *Id.* at *6. IDOT engaged in a study to calculate its base figure and conduct a custom census to determine whether a more reliable method of calculation existed as opposed to its previous method of reviewing a bidder's list. *Id.*

In compliance with TEA-21, IDOT used a study to evaluate the base figure using a six-part analysis: (1) the study identified the appropriate and relevant geographic market for its contracting activity and its prime contractors; (2) the study identified the relevant product markets in which IDOT and its prime contractors contract; (3) the study sought to identify all available contractors and subcontractors in the relevant industries within Illinois using Dun & Bradstreet's *Marketplace*; (4) the study collected lists of DBEs from IDOT and 20 other public and private agencies; (5) the study attempted to correct for the possibility that certain businesses listed as DBEs were no longer qualified or, alternatively, businesses not listed as DBEs but qualified as such under the federal regulations; and (6) the study attempted to correct for the possibility that not all DBE businesses

were listed in the various directories. *Id.* at *6-7. The study utilized a standard statistical sampling procedure to correct for the latter two biases. *Id.* at *7. The study thus calculated a weighted average base figure of 22.7 percent. *Id.*

IDOT then adjusted the base figure based upon two disparity studies and some reports considering whether the DBE availability figures were artificially low due to the effects of past discrimination. *Id.* at *8. One study examined disparities in earnings and business formation rates as between DBEs and their white male-owned counterparts. *Id.* Another study included a survey reporting that DBEs are rarely utilized in non-goals projects. *Id.*

IDOT considered three reports prepared by expert witnesses. *Id.* at *9. The first report concluded that minority- and women-owned businesses were underutilized relative to their capacity and that such underutilization was due to discrimination. *Id.* The second report concluded, after controlling for relevant variables such as credit worthiness, "that minorities and women are less likely to form businesses, and that when they do form businesses, those businesses achieve lower earnings than did businesses owned by white males." *Id.* The third report, again controlling for relevant variables (education, age, marital status, industry and wealth), concluded that minority- and female-owned businesses' formation rates are lower than those of their white male counterparts, and that such businesses engage in a disproportionate amount of government work and contracts as a result of their inability to obtain private sector work. *Id.*

IDOT also conducted a series of public hearings in which a number of DBE owners who testified that they "were rarely, if ever, solicited to bid on projects not subject to disadvantaged-firm hiring goals." *Id.* Additionally, witnesses identified 20 prime contractors in IDOT District 1 alone who rarely or never solicited bids from DBEs on non-goals projects. *Id.* The prime contractors did not respond to IDOT's requests for information concerning their utilization of DBEs. *Id.*

Finally, IDOT reviewed unremediated market data from four different markets (the Illinois State Toll Highway Authority, the Missouri DOT, Cook County's public construction contracts, and a "non-goals" experiment conducted by IDOT between 2001 and 2002), and considered past utilization of DBEs on IDOT projects. *Id.* at *11. After analyzing all of the data, the study recommended an upward adjustment to 27.51 percent. However, IDOT decided to maintain its figure at 22.77 percent. *Id.*

IDOT's representative testified that the DBE program was administered on a "contract-by-contract basis." *Id.* She testified that DBE goals have no effect on the award of prime contracts but that contracts are awarded exclusively to the "lowest responsible bidder." IDOT also allowed contractors to petition for a waiver of individual contract goals in certain situations (*e.g.*, where the contractor has been unable to meet the goal despite having made reasonable good faith efforts). *Id.* at *12. Between 2001 and 2004, IDOT received waiver requests on 8.53 percent of its contracts and granted three out of four; IDOT also provided an appeal procedure for a denial from a waiver request. *Id.*

IDOT implemented a number of race- and gender-neutral measures both in its fiscal year 2005 plan and in response to the district court's earlier summary judgment order, including:

1. A "prompt payment provision" in its contracts, requiring that subcontractors be paid promptly after they complete their work, and prohibiting prime contractors from delaying such payments;

2. An extensive outreach program seeking to attract and assist DBE and other small firms enter and achieve success in the industry (including retaining a network of consultants to provide management, technical and financial assistance to small businesses, and sponsoring networking sessions throughout the state to acquaint small firms with larger contractors and to encourage the involvement of small firms in major construction projects);

3. Reviewing the criteria for prequalification to reduce any unnecessary burdens;

4. "Unbundling" large contracts; and

5. Allocating some contracts for bidding only by firms meeting the SBA's definition of small businesses.

Id. (internal citations omitted). IDOT was also in the process of implementing bonding and financing initiatives to assist emerging contractors obtain guaranteed bonding and lines of credit, and establishing a mentor-protégé program. *Id*.

The court found that IDOT attempted to achieve the "maximum feasible portion" of its overall DBE goal through race- and gender-neutral measures. *Id*. at *13. The court found that IDOT determined that race- and gender-neutral measures would account for 6.43 percent of its DBE goal, leaving 16.34 percent to be reached using race- and gender-conscious measures. *Id*.

Anecdotal evidence. A number of DBE owners testified to instances of perceived discrimination and to the barriers they face. Id. The DBE owners also testified to difficulties in obtaining work in the private sector and "unanimously reported that they were rarely invited to bid on such contracts." Id. The DBE owners testified to a reluctance to submit unsolicited bids due to the expense involved and identified specific firms that solicited bids from DBEs for goals projects but not for non-goals projects. Id. A number of the witnesses also testified to specific instances of discrimination in bidding, on specific contracts, and in the financing and insurance markets. Id. at *13-14. One witness acknowledged that all small firms face difficulties in the financing and insurance markets, but testified that it is especially burdensome for DBEs who "frequently are forced to pay higher insurance rates due to racial and gender discrimination." Id. at *14. The DBE witnesses also testified they have obstacles in obtaining prompt payment. *Id*.

The plaintiff called a number of non-DBE business owners who unanimously testified that they solicit business equally from DBEs and non-DBEs on non-goals projects. *Id*. Some non-DBE firm owners testified that they solicit bids from DBEs on a goals project for work they would otherwise complete themselves absent the goals; others testified that they "occasionally award work to a DBE that was not the low bidder in order to avoid scrutiny from IDOT." *Id*. A number of non-DBE firm owners accused of failing to solicit bids from DBEs on non-goals projects testified and denied the allegations. *Id*. at *15.

Strict scrutiny. The court applied strict scrutiny to the program as a whole (including the gender-based preferences). Id. at *16. The court, however, set forth a different burden of proof, finding that

the government must demonstrate identified discrimination with specificity and must have a "'strong basis in evidence' to conclude that remedial action was necessary, before it embarks on an affirmative action program … If the government makes such a showing, the party challenging the affirmative action plan bears the 'ultimate burden' of demonstrating the unconstitutionality of the program." Id. The court held that challenging party's burden "can only be met by presenting credible evidence to rebut the government's proffered data." Id. at *17.

To satisfy strict scrutiny, the court found that IDOT did not need to demonstrate an independent compelling interest; however, as part of the narrowly tailored prong, IDOT needed to show "that there is a demonstrable need for the implementation of the Federal DBE Program within its jurisdiction." *Id.* at *16.

The court found that IDOT presented "an abundance" of evidence documenting the disparities between DBEs and non-DBEs in the construction industry. *Id.* at *17. The plaintiff argued that the study was "erroneous because it failed to limit its DBE availability figures to those firms … registered and pre-qualified with IDOT." *Id.* The plaintiff also alleged the calculations of the DBE utilization rate were incorrect because the data included IDOT subcontracts and prime contracts, despite the fact that the latter are awarded to the lowest bidder as a matter of law. *Id.* Accordingly, the plaintiff alleged that IDOT's calculation of DBE availability and utilization rates was incorrect. *Id.*

The court found that other jurisdictions had utilized the custom census approach without successful challenge. *Id.* at *18. Additionally, the court found "that the remedial nature of the federal statutes counsels for the casting of a broader net when measuring DBE availability." *Id.* at *19. The court found that IDOT presented "an array of statistical studies concluding that DBEs face disproportionate hurdles in the credit, insurance, and bonding markets." *Id.* at *21. The court also found that the statistical studies were consistent with the anecdotal evidence. *Id.* The court did find, however, that "there was no evidence of even a single instance in which a prime contractor failed to award a job to a DBE that offered the low bid. This … is [also] supported by the statistical data … which shows that at least at the level of subcontracting, DBEs are generally utilized at a rate in line with their ability." *Id.* at *21, n. 31. Additionally, IDOT did not verify the anecdotal testimony of DBE firm owners who testified to barriers in financing and bonding. However, the court found that such verification was unnecessary. *Id.* at *21, n. 32.

The court further found:

That such discrimination indirectly affects the ability of DBEs to compete for prime contracts, despite the fact that they are awarded solely on the basis of low bid, cannot be doubted: '[E]xperience and size are not race- and gender-neutral variables … [DBE] construction firms are generally smaller and less experienced *because* of industry discrimination.'

Id. at *21, *citing Concrete Works of Colorado, Inc. v. City and County of Denver,* 321 F.3d 950 (10th Cir. 2003).

The parties stipulated to the fact that DBE utilization goals exceed DBE availability for 2003 and 2004. *Id.* at *22. IDOT alleged, and the court so found, that the high utilization on goals projects was due to the success of the DBE program, and not to an absence of discrimination. *Id.* The court found that the statistical disparities coupled with the anecdotal evidence indicated that IDOT's fiscal

year 2005 goal was a "'plausible lower-bound estimate' of DBE participation in the absence of discrimination." *Id*. The court found that the plaintiff did not present persuasive evidence to contradict or explain IDOT's data. *Id*.

The plaintiff argued that even if accepted at face value, IDOT's marketplace data did not support the imposition of race- and gender-conscious remedies because there was no evidence of direct discrimination by prime contractors. *Id*. The court found first that IDOT's indirect evidence of discrimination in the bonding, financing, and insurance markets was sufficient to establish a compelling purpose. *Id*. Second, the court found:

[M]ore importantly, Plaintiff fails to acknowledge that, in enacting its DBE program, IDOT acted not to remedy its own prior discriminatory practices, but pursuant to federal law, which both authorized and required IDOT to remediate the effects of *private* discrimination on federally-funded highway contracts. This is a fundamental distinction … [A] state or local government need not independently identify a compelling interest when its actions come in the course of enforcing a federal statute.

Id. at *23. The court distinguished *Builders Ass'n of Greater Chicago v. County of Cook*, 123 F. Supp.2d 1087 (N.D. Ill. 2000), *aff'd* 256 F.3d 642 (7th Cir. 2001), noting that the program in that case was not federally-funded. *Id*. at *23, n. 34.

The court also found that "IDOT has done its best to maximize the portion of its DBE goal" through race- and gender-neutral measures, including anti-discrimination enforcement and small business initiatives. *Id*. at *24. The anti-discrimination efforts included: an internet website where a DBE can file an administrative complaint if it believes that a prime contractor is discriminating on the basis of race or gender in the award of sub-contracts; and requiring contractors seeking prequalification to maintain and produce solicitation records on all projects, both public and private, with and without goals, as well as records of the bids received and accepted. *Id*. The small business initiative included: "unbundling" large contracts; allocating some contracts for bidding only by firms meeting the SBA's definition of small businesses; a "prompt payment provision" in its contracts, requiring that subcontractors be paid promptly after they complete their work, and prohibiting prime contractors from delaying such payments; and an extensive outreach program seeking to attract and assist DBE and other small firms DBE and other small firms enter and achieve success in the industry (including retaining a network of consultants to provide management, technical and financial assistance to small businesses, and sponsoring networking sessions throughout the state to acquaint small firms with larger contractors and to encourage the involvement of small firms in major construction projects). *Id*.

The court found "[s]ignificantly, Plaintiff did not question the efficacy or sincerity of these race- and gender-neutral measures." *Id*. at *25. Additionally, the court found the DBE program had significant flexibility in that utilized contract-by-contract goal setting (without a fixed DBE participation minimum) and contained waiver provisions. *Id*. The court found that IDOT approved 70 percent of waiver requests although waivers were requested on only 8 percent of all contracts. *Id*., *citing Adarand Constructors, Inc. v. Slater "Adarand VII"*, 228 F.3d 1147, 1177 (10th Cir. 2000) (citing for the proposition that flexibility and waiver are critically important).

The court held that IDOT's DBE plan was narrowly tailored to the goal of remedying the effects of racial and gender discrimination in the construction industry, and was therefore constitutional.

3. Northern Contracting, Inc. v. State of Illinois, Illinois DOT, and USDOT, 2004 WL 422704 (N.D. Ill. March 3, 2004)

This is the earlier decision in *Northern Contracting, Inc.*, 2005 WL 2230195 (N.D. Ill. Sept. 8, 2005), *see* above, which resulted in the remand of the case to consider the implementation of the Federal DBE Program by the IDOT. This case involves the challenge to the Federal DBE Program. The plaintiff contractor sued the IDOT and the USDOT challenging the facial constitutionality of the Federal DBE Program (TEA-21 and 49 C.F.R. Part 26) as well as the implementation of the Federal Program by the IDOT (*i.e.*, the IDOT DBE Program). The court held valid the Federal DBE Program, finding there is a compelling governmental interest and the federal program is narrowly tailored. The court also held there are issues of fact regarding whether IDOT's DBE Program is narrowly tailored to achieve the federal government's compelling interest. The court denied the Motions for Summary Judgment filed by the plaintiff and by IDOT, finding there were issues of material fact relating to IDOT's implementation of the Federal DBE Program.

The court in *Northern Contracting*, held that there is an identified compelling governmental interest for implementing the Federal DBE Program and that the Federal DBE Program is narrowly tailored to further that interest. Therefore, the court granted the Federal defendants' Motion for Summary Judgment challenging the validity of the Federal DBE Program. In this connection, the district court followed the decisions and analysis in *Sherbrooke Turf, Inc. v. Minnesota Department of Transportation*, 345 F.3d 964 (8th Cir. 2003) and *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147 (10th Cir. 2000) ("*Adarand VII*"), *cert. granted then dismissed as improvidently granted*, 532 U.S. 941, 534 U.S. 103 (2001). The court held, like these two Courts of Appeals that have addressed this issue, that Congress had a strong basis in evidence to conclude that the DBE Program was necessary to redress private discrimination in federally-assisted highway subcontracting. The court agreed with the *Adarand VII* and *Sherbrooke Turf* courts that the evidence presented to Congress is sufficient to establish a compelling governmental interest, and that the contractors had not met their burden of introducing credible particularized evidence to rebut the Government's initial showing of the existence of a compelling interest in remedying the nationwide effects of past and present discrimination in the federal construction procurement subcontracting market. 2004 WL422704 at *34, *citing Adarand VII*, 228 F.3d at 1175.

In addition, the court analyzed the second prong of the strict scrutiny test, whether the government provided sufficient evidence that its program is narrowly tailored. In making this determination, the court looked at several factors, such as the efficacy of alternative remedies; the flexibility and duration of the race-conscious remedies, including the availability of waiver provisions; the relationships between the numerical goals and relevant labor market; the impact of the remedy on third parties; and whether the program is over-or-under-inclusive. The narrow tailoring analysis with regard to the as-applied challenge focused on IDOT's implementation of the Federal DBE Program.

First, the court held that the Federal DBE Program does not mandate the use of race-conscious measures by recipients of federal dollars, but in fact requires only that the goal reflect the recipient's determination of the level of DBE participation it would expect absent the effects of the discrimination. 49 C.F.R. § 26.45(b). The court recognized, as found in the *Sherbrooke Turf* and

Adarand VII cases, that the Federal Regulations place strong emphasis on the use of race-neutral means to increase minority business participation in government contracting, that although narrow tailoring does not require exhaustion of every conceivable race-neutral alternative, it does require "serious, good faith consideration of workable race-neutral alternatives." 2004 WL422704 at *36, *citing* and *quoting Sherbrooke Turf*, 345 F.3d at 972, *quoting Grutter v. Bollinger*, 539 U.S. 306 (2003). The court held that the Federal regulations, which prohibit the use of quotas and severely limit the use of set-asides, meet this requirement. The court agreed with the *Adarand VII* and *Sherbrooke Turf* courts that the Federal DBE Program does require recipients to make a serious good faith consideration of workable race-neutral alternatives before turning to race-conscious measures.

Second, the court found that because the Federal DBE Program is subject to periodic reauthorization, and requires recipients of Federal dollars to review their programs annually, the Federal DBE scheme is appropriately limited to last no longer than necessary.

Third, the court held that the Federal DBE Program is flexible for many reasons, including that the presumption that women and minority are socially disadvantaged is deemed rebutted if an individual's personal net worth exceeds $750,000.00, and a firm owned by individual who is not presumptively disadvantaged may nevertheless qualify for such status if the firm can demonstrate that its owners are socially and economically disadvantaged. 49 C.F.R. § 26.67(b)(1)(d). The court found other aspects of the Federal Regulations provide ample flexibility, including recipients may obtain waivers or exemptions from any requirements. Recipients are not required to set a contract goal on every USDOT-assisted contract. If a recipient estimates that it can meet the entirety of its overall goals for a given year through race-neutral means, it must implement the Program without setting contract goals during the year. If during the course of any year in which it is using contract goals a recipient determines that it will exceed its overall goals, it must adjust the use of race-conscious contract goals accordingly. 49 C.F.R. § 26.51(e)(f). Recipients also administering a DBE Program in good faith cannot be penalized for failing to meet their DBE goals, and a recipient may terminate its DBE Program if it meets its annual overall goal through race-neutral means for two consecutive years. 49 C.F.R. § 26.51(f). Further, a recipient may award a contract to a bidder/offeror that does not meet the DBE Participation goals so long as the bidder has made adequate good faith efforts to meet the goals. 49 C.F.R. § 26.53(a)(2). The regulations also prohibit the use of quotas. 49 C.F.R. § 26.43.

Fourth, the court agreed with the *Sherbrooke Turf* court's assessment that the Federal DBE Program requires recipients to base DBE goals on the number of ready, willing and able disadvantaged business in the local market, and that this exercise requires recipients to establish realistic goals for DBE participation in the relevant labor markets.

Fifth, the court found that the DBE Program does not impose an unreasonable burden on third parties, including non-DBE subcontractors and taxpayers. The court found that the Federal DBE Program is a limited and properly tailored remedy to cure the effects of prior discrimination, a sharing of the burden by parties such as non-DBEs is not impermissible.

Finally, the court found that the Federal DBE Program was not over-inclusive because the regulations do not provide that every women and every member of a minority group is disadvantaged. Preferences are limited to small businesses with a specific average annual gross receipts over three fiscal years of $16.6 million or less (at the time of this decision), and businesses

whose owners' personal net worth exceed $750,000.00 are excluded. 49 C.F.R. § 26.67(b)(1). In addition, a firm owned by a white male may qualify as socially and economically disadvantaged. 49 C.F.R. § 26.67(d).

The court analyzed the constitutionality of the IDOT DBE Program. The court adopted the reasoning of the Eighth Circuit in *Sherbrooke Turf*, that a recipient's implementation of the Federal DBE Program must be analyzed under the narrow tailoring analysis but not the compelling interest inquiry. Therefore, the court agreed with *Sherbrooke Turf* that a recipient need not establish a distinct compelling interest before implementing the Federal DBE Program, but did conclude that a recipient's implementation of the Federal DBE Program must be narrowly tailored. The court found that issues of fact remain in terms of the validity of the IDOT's DBE Program as implemented in terms of whether it was narrowly tailored to achieve the Federal Government's compelling interest. The court, therefore, denied the contractor plaintiff's Motion for Summary Judgment and the Illinois DOT's Motion for Summary Judgment.

4. Sherbrooke Turf, Inc. v. Minnesota DOT, and Gross Seed Company v. Nebraska Department of Roads, 345 F.3d 964 (8th Cir. 2003), cert. denied, 541 U.S. 1041 (2004)

This case is instructive in its analysis of state DOT DBE-type programs and their evidentiary basis and implementation. This case also is instructive in its analysis of the narrowly tailored requirement for state DBE programs. In upholding the challenged Federal DBE Program at issue in this case the Eighth Circuit emphasized the race-, ethnicity- and gender-neutral elements, the ultimate flexibility of the Program, and the fact the Program was tied closely only to labor markets with identified discrimination.

In *Sherbrooke Turf, Inc. v. Minnesota DOT*, and *Gross Seed Company v. Nebraska Department of Roads,* the U.S. Court of Appeals for the Eighth Circuit upheld the constitutionality of the Federal DBE Program (49 C.F.R. Part 26). The court held the Federal Program was narrowly tailored to remedy a compelling governmental interest. The court also held the federal regulations governing the states' implementation of the Federal DBE Program were narrowly tailored, and the state DOT's implementation of the Federal DBE Program was narrowly tailored to serve a compelling government interest.

Sherbrooke and Gross Seed both contended that the Federal DBE Program on its face and as applied in Minnesota and Nebraska violated the Equal Protection component of the Fifth Amendment's Due Process Clause. The Eighth Circuit engaged in a review of the Federal DBE Program and the implementation of the Program by the Minnesota DOT and the Nebraska Department of Roads ("Nebraska DOR") under a strict scrutiny analysis and held that the Federal DBE Program was valid and constitutional and that the Minnesota DOT's and Nebraska DOR's implementation of the Program also was constitutional and valid. Applying the strict scrutiny analysis, the court first considered whether the Federal DBE Program established a compelling governmental interest, and found that it did. It concluded that Congress had a strong basis in evidence to support its conclusion that race-based measures were necessary for the reasons stated by the Tenth Circuit in *Adarand*, 228 F.3d at 1167-76. Although the contractors presented evidence that challenged the data, they failed to present affirmative evidence that no remedial action was necessary because minority-owned small businesses enjoy non-discriminatory access to participation in highway

contracts. Thus, the court held they failed to meet their ultimate burden to prove that the DBE Program is unconstitutional on this ground.

Finally, Sherbrooke and Gross Seed argued that the Minnesota DOT and Nebraska DOR must independently satisfy the compelling governmental interest test aspect of strict scrutiny review. The government argued, and the district courts below agreed, that participating states need not independently meet the strict scrutiny standard because under the DBE Program the state must still comply with the DOT regulations. The Eighth Circuit held that this issue was not addressed by the Tenth Circuit in *Adarand*. The Eighth Circuit concluded that neither side's position is entirely sound.

The court rejected the contention of the contractors that their facial challenges to the DBE Program must be upheld unless the record before Congress included strong evidence of race discrimination in construction contracting in Minnesota and Nebraska. On the other hand, the court held a valid race-based program must be narrowly tailored, and to be narrowly tailored, a national program must be limited to those parts of the country where its race-based measures are demonstrably needed to the extent that the federal government delegates this tailoring function, as a state's implementation becomes relevant to a reviewing court's strict scrutiny. Thus, the court left the question of state implementation to the narrow tailoring analysis.

The court held that a reviewing court applying strict scrutiny must determine if the race-based measure is narrowly tailored. That is, whether the means chosen to accomplish the government's asserted purpose are specifically and narrowly framed to accomplish that purpose. The contractors have the ultimate burden of establishing that the DBE Program is not narrowly tailored. *Id*. The compelling interest analysis focused on the record before Congress; the narrow-tailoring analysis looks at the roles of the implementing highway construction agencies.

For determining whether a race-conscious remedy is narrowly tailored, the court looked at factors such as the efficacy of alternative remedies, the flexibility and duration of the race-conscious remedy, the relationship of the numerical goals to the relevant labor market, and the impact of the remedy on third parties. *Id*. Under the DBE Program, a state receiving federal highway funds must, on an annual basis, submit to USDOT an overall goal for DBE participation in its federally-funded highway contracts. *See*, 49 C.F.R. § 26.45(f)(1). The overall goal "must be based on demonstrable evidence" as to the number of DBEs who are ready, willing, and able to participate as contractors or subcontractors on federally-assisted contracts. 49 C.F.R. § 26.45(b). The number may be adjusted upward to reflect the state's determination that more DBEs would be participating absent the effects of discrimination, including race-related barriers to entry. *See*, 49 C.F.R. § 26.45(d).

The state must meet the "maximum feasible portion" of its overall goal by race-neutral means and must submit for approval a projection of the portion it expects to meet through race-neutral means. *See*, 49 C.F.R. § 26.45(a), (c). If race-neutral means are projected to fall short of achieving the overall goal, the state must give preference to firms it has certified as DBEs. However, such preferences may not include quotas. 49 C.F.R. § 26.45(b). During the course of the year, if a state determines that it will exceed or fall short of its overall goal, it must adjust its use of race-conscious and race-neutral methods "[t]o ensure that your DBE program continues to be narrowly tailored to overcome the effects of discrimination." 49 C.F.R. § 26.51(f).

Absent bad faith administration of the program, a state's failure to achieve its overall goal will not be penalized. *See*, 49 C.F.R. § 26.47. If the state meets its overall goal for two consecutive years through race-neutral means, it is not required to set an annual goal until it does not meet its prior overall goal for a year. *See*, 49 C.F.R. § 26.51(f)(3). In addition, DOT may grant an exemption or waiver from any and all requirements of the Program. *See*, 49 C.F.R. § 26.15(b).

Like the district courts below, the Eighth Circuit concluded that the USDOT regulations, on their face, satisfy the Supreme Court's narrowing tailoring requirements. First, the regulations place strong emphasis on the use of race-neutral means to increase minority business participation in government contracting. 345 F.3d at 972. Narrow tailoring does not require exhaustion of every conceivable race-neutral alternative, but it does require serious good faith consideration of workable race-neutral alternatives. 345 F.3d at 971, *citing Grutter v. Bollinger*, 539 U.S. 306.

Second, the revised DBE program has substantial flexibility. A state may obtain waivers or exemptions from any requirements and is not penalized for a good faith effort to meet its overall goal. In addition, the program limits preferences to small businesses falling beneath an earnings threshold, and any individual whose net worth exceeds $750,000.00 cannot qualify as economically disadvantaged. *See*, 49 C.F.R. § 26.67(b). Likewise, the DBE program contains built-in durational limits. 345 F.3d at 972. A state may terminate its DBE program if it meets or exceeds its annual overall goal through race-neutral means for two consecutive years. *Id.*; 49 C.F.R. § 26.51(f)(3).

Third, the court found, the USDOT has tied the goals for DBE participation to the relevant labor markets. The regulations require states to set overall goals based upon the likely number of minority contractors that would have received federal assisted highway contracts but for the effects of past discrimination. *See*, 49 C.F.R. § 26.45(c)-(d)(Steps 1 and 2). Though the underlying estimates may be inexact, the exercise requires states to focus on establishing realistic goals for DBE participation in the relevant contacting markets. *Id.* at 972.

Finally, Congress and DOT have taken significant steps, the court held, to minimize the race-based nature of the DBE Program. Its benefits are directed at all small businesses owned and controlled by the socially and economically disadvantaged. While TEA-21 creates a presumption that members of certain racial minorities fall within that class, the presumption is rebuttable, wealthy minority owners and wealthy minority-owned firms are excluded, and certification is available to persons who are not presumptively disadvantaged that demonstrate actual social and economic disadvantage. Thus, race is made relevant in the Program, but it is not a determinative factor. 345 F.3d at 973. For these reasons, the court agreed with the district courts that the revised DBE Program is narrowly tailored on its face.

Sherbrooke and Gross Seed also argued that the DBE Program as applied in Minnesota and Nebraska is not narrowly tailored. Under the Federal Program, states set their own goals, based on local market conditions; their goals are not imposed by the federal government; nor do recipients have to tie them to any uniform national percentage. 345 F.3d at 973, citing 64 Fed. Reg. at 5102.

The court analyzed what Minnesota and Nebraska did in connection with their implementation of the Federal DBE Program. Minnesota DOT commissioned a disparity study of the highway contracting market in Minnesota. The study group determined that DBEs made up 11.4 percent of the prime contractors and subcontractors in a highway construction market. Of this number, 0.6

percent were minority-owned and 10.8 percent women-owned. Based upon its analysis of business formation statistics, the consultant estimated that the number of participating minority-owned business would be 34 percent higher in a race-neutral market. Therefore, the consultant adjusted its DBE availability figure from 11.4 percent to 11.6 percent. Based on the study, Minnesota DOT adopted an overall goal of 11.6 percent DBE participation for federally-assisted highway projects. Minnesota DOT predicted that it would need to meet 9 percent of that overall goal through race and gender-conscious means, based on the fact that DBE participation in State highway contracts dropped from 10.25 percent in 1998 to 2.25 percent in 1999 when its previous DBE Program was suspended by the injunction by the district court in an earlier decision in *Sherbrooke*. Minnesota DOT required each prime contract bidder to make a good faith effort to subcontract a prescribed portion of the project to DBEs, and determined that portion based on several individualized factors, including the availability of DBEs in the extent of subcontracting opportunities on the project.

The contractor presented evidence attacking the reliability of the data in the study, but it failed to establish that better data were available or that Minnesota DOT was otherwise unreasonable in undertaking this thorough analysis and relying on its results. *Id*. The precipitous drop in DBE participation when no race-conscious methods were employed, the court concluded, supports Minnesota DOT's conclusion that a substantial portion of its overall goal could not be met with race-neutral measures. *Id*. On that record, the court agreed with the district court that the revised DBE Program serves a compelling government interest and is narrowly tailored on its face and as applied in Minnesota.

In Nebraska, the Nebraska DOR commissioned a disparity study also to review availability and capability of DBE firms in the Nebraska highway construction market. The availability study found that between 1995 and 1999, when Nebraska followed the mandatory 10 percent set-aside requirement, 9.95 percent of all available and capable firms were DBEs, and DBE firms received 12.7 percent of the contract dollars on federally assisted projects. After apportioning part of this DBE contracting to race-neutral contracting decisions, Nebraska DOR set an overall goal of 9.95 percent DBE participation and predicted that 4.82 percent of this overall goal would have to be achieved by race-and-gender conscious means. The Nebraska DOR required that prime contractors make a good faith effort to allocate a set portion of each contract's funds to DBE subcontractors. The Eighth Circuit concluded that Gross Seed, like Sherbrooke, failed to prove that the DBE Program is not narrowly tailored as applied in Nebraska. Therefore, the court affirmed the district courts' decisions in *Gross Seed* and *Sherbrooke*. (*See* district court opinions discussed *infra*.).

5. Sherbrooke Turf, Inc. v. Minnesota DOT, 2001 WL 1502841, No. 00-CV-1026 (D. Minn. 2001) (unpublished opinion), aff'd 345 F.3d 964 (8th Cir. 2003)

Sherbrooke involved a landscaping service contractor owned and operated by Caucasian males. The contractor sued the Minnesota DOT claiming the Federal DBE provisions of the TEA-21 are unconstitutional. *Sherbrooke* challenged the "federal affirmative action programs," the USDOT implementing regulations, and the Minnesota DOT's participation in the DBE Program. The USDOT and the FHWA intervened as Federal defendants in the case. *Sherbrooke*, 2001 WL 1502841 at *1.

The United States District Court in *Sherbrooke* relied substantially on the Tenth Circuit Court of Appeals decision in *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147 (10th Cir. 2000), in holding that

the Federal DBE Program is constitutional. The district court addressed the issue of "random inclusion" of various groups as being within the Program in connection with whether the Federal DBE Program is "narrowly tailored." The court held that Congress cannot enact a national program to remedy discrimination without recognizing classes of people whose history has shown them to be subject to discrimination and allowing states to include those people in its DBE Program.

The court held that the Federal DBE Program attempts to avoid the "potentially invidious effects of providing blanket benefits to minorities" in part,

> by restricting a state's DBE preference to identified groups actually appearing in the target state. In practice, this means Minnesota can only certify members of one or another group as potential DBEs if they are present in the local market. This minimizes the chance that individuals — simply on the basis of their birth — will benefit from Minnesota's DBE program. If a group is not present in the local market, or if they are found in such small numbers that they cannot be expected to be able to participate in the kinds of construction work TEA-21 covers, that group will not be included in the accounting used to set Minnesota's overall DBE contracting goal.

Sherbrooke, 2001 WL 1502841 at *10 (D. Minn.).

The court rejected plaintiff's claim that the Minnesota DOT must independently demonstrate how its program comports with *Croson's* strict scrutiny standard. The court held that the "Constitution calls out for different requirements when a state implements a federal affirmative action program, as opposed to those occasions when a state or locality initiates the Program." *Id.* at *11 (emphasis added). The court in a footnote ruled that TEA-21, being a federal program, "relieves the state of any burden to independently carry the strict scrutiny burden." *Id.* at *11 n. 3. The court held states that establish DBE programs under TEA-21 and 49 C.F.R. Part 26 are implementing a Congressionally-required program and not establishing a local one. As such, the court concluded that the state need not independently prove its DBE program meets the strict scrutiny standard. *Id.*

6. Gross Seed Co. v. Nebraska Department of Roads, Civil Action File No. 4:00CV3073 (D. Neb. May 6, 2002), aff'd 345 F.3d 964 (8th Cir. 2003)

The United States District Court for the District of Nebraska held in *Gross Seed Co. v. Nebraska* (with the USDOT and FHWA as Interveners), that the Federal DBE Program (codified at 49 C.F.R. Part 26) is constitutional. The court also held that the Nebraska Department of Roads ("Nebraska DOR") DBE Program adopted and implemented solely to comply with the Federal DBE Program is "approved" by the court because the court found that 49 C.F.R. Part 26 and TEA-21 were constitutional.

The court concluded, similar to the court in *Sherbrooke Turf*, that the State of Nebraska did not need to independently establish that its program met the strict scrutiny requirement because the Federal DBE Program satisfied that requirement, and was therefore constitutional. The court did not engage in a thorough analysis or evaluation of the Nebraska DOR Program or its implementation of the Federal DBE Program. The court points out that the Nebraska DOR Program is adopted in

compliance with the Federal DBE Program, and that the USDOT approved the use of Nebraska DOR's proposed DBE goals for fiscal year 2001, pending completion of USDOT's review of those goals. Significantly, however, the court in its findings does note that the Nebraska DOR established its overall goals for fiscal year 2001 based upon an independent availability/disparity study.

The court upheld the constitutionality of the Federal DBE Program by finding the evidence presented by the federal government and the history of the federal legislation are sufficient to demonstrate that past discrimination does exist "in the construction industry" and that racial and gender discrimination "within the construction industry" is sufficient to demonstrate a compelling interest in individual areas, such as highway construction. The court held that the Federal DBE Program was sufficiently "narrowly tailored" to satisfy a strict scrutiny analysis based again on the evidence submitted by the federal government as to the Federal DBE Program.

7. Adarand Constructors, Inc. v. Slater, 228 F.3d 1147 (10th Cir. 2000) cert. granted then dismissed as improvidently granted sub nom. Adarand Constructors, Inc. v. Mineta, 532 U.S. 941, 534 U.S. 103 (2001)

This is the *Adarand* decision by the United States Court of Appeals for the Tenth Circuit, which was on remand from the earlier Supreme Court decision applying the strict scrutiny analysis to any constitutional challenge to the Federal DBE Program. *See Adarand Constructors, Inc. v. Pena*, 515 U.S. 200 (1995). The decision of the Tenth Circuit in this case was considered by the United States Supreme Court, after that court granted certiorari to consider certain issues raised on appeal. The Supreme Court subsequently dismissed the writ of certiorari "as improvidently granted" without reaching the merits of the case. The court did not decide the constitutionality of the Federal DBE Program as it applies to state DOTs or local governments.

The Supreme Court held that the Tenth Circuit had not considered the issue before the Supreme Court on certiorari, namely whether a race-based program applicable to direct federal contracting is constitutional. This issue is distinguished from the issue of the constitutionality of the USDOT DBE Program as it pertains to procurement of federal funds for highway projects let by states, and the implementation of the Federal DBE Program by state DOTs. Therefore, the Supreme Court held it would not reach the merits of a challenge to federal laws relating to direct federal procurement.

Turning to the Tenth Circuit decision in *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147 (10th Cir. 2000), the Tenth Circuit upheld in general the facial constitutionality of the Federal DBE Program. The court found that the federal government had a compelling interest in not perpetuating the effects of racial discrimination in its own distribution of federal funds and in remediating the effects of past discrimination in government contracting, and that the evidence supported the existence of past and present discrimination sufficient to justify the Federal DBE Program. The court also held that the Federal DBE Program is "narrowly tailored," and therefore upheld the constitutionality of the Federal DBE Program.

It is significant to note that the court in determining the Federal DBE Program is "narrowly tailored" focused on the current regulations, 49 C.F.R. Part 26, and in particular § 26.1(a), (b), and (f). The court pointed out that the federal regulations instruct recipients as follows:

> [y]ou must meet the maximum feasible portion of your overall goal by using race-neutral means of facilitating DBE participation, 49 C.F.R. § 26.51(a)(2000); *see also* 49

> C.F.R. § 26.51(f)(2000) (if a recipient can meet its overall goal through race-neutral means, it must implement its program without the use of race-conscious contracting measures), and enumerate a list of race-neutral measures, see 49 C.F.R. § 26.51(b)(2000). The current regulations also outline several race-neutral means available to program recipients including assistance in overcoming bonding and financing obstacles, providing technical assistance, establishing programs to assist start-up firms, and other methods. See 49 C.F.R. § 26.51(b). We therefore are dealing here with revisions that emphasize the continuing need to employ non-race-conscious methods even as the need for race-conscious remedies is recognized. 228 F.3d at 1178-1179.

In considering whether the Federal DBE Program is narrowly tailored, the court also addressed the argument made by the contractor that the program is over- and under-inclusive for several reasons, including that Congress did not inquire into discrimination against each particular minority racial or ethnic group. The court held that insofar as the scope of inquiry suggested was a particular state's construction industry alone, this would be at odds with its holding regarding the compelling interest in Congress's power to enact nationwide legislation. *Id*. at 1185-1186. The court held that because of the "unreliability of racial and ethnic categories and the fact that discrimination commonly occurs based on much broader racial classifications," extrapolating findings of discrimination against the various ethnic groups "is more a question of nomenclature than of narrow tailoring." *Id*. The court found that the "Constitution does not erect a barrier to the government's effort to combat discrimination based on broad racial classifications that might prevent it from enumerating particular ethnic origins falling within such classifications." *Id*.

Finally, the Tenth Circuit did not specifically address a challenge to the letting of federally-funded construction contracts by state departments of transportation. The court pointed out that plaintiff Adarand "conceded that its challenge in the instant case is to 'the federal program, implemented by federal officials,' and not to the letting of federally-funded construction contracts by state agencies." 228 F.3d at 1187. The court held that it did not have before it a sufficient record to enable it to evaluate the separate question of Colorado DOT's implementation of race-conscious policies. *Id*. at 1187-1188.

8. Geod Corporation v. New Jersey Transit Corporation, et. al., 746 F. Supp.2d 642, 2010 WL 4193051 (D. N. J. October 19, 2010)

Plaintiffs, white male owners of Geod Corporation ("Geod"), brought this action against the New Jersey Transit Corporation ("NJT") alleging discriminatory practices by *NJT* in designing and implementing the Federal DBE program. 746 F. Supp 2d at 644. The Plaintiffs alleged that the NJT's DBE program violated the United States Constitution, 42 U.S.C. § 1981, Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000(d) and state law. The district court previously dismissed the Complaint against all Defendants except for NJT and concluded that a genuine issue material fact existed only as to whether the method used by NJT to determine its DBE goals during 2010 were sufficiently narrowly tailored, and thus constitutional. *Id*.

New Jersey Transit Program and Disparity Study. NJT relied on the analysis of consultants for the establishment of their goals for the DBE program. The study established the effects of past discrimination, the district court found, by looking at the disparity and utilization of DBEs compared to their availability in the market. Id. at 648. The study used several data sets and averaged the

findings in order to calculate this ratio, including: (1) the New Jersey DBE vendor List; (2) a Survey of Minority-Owned Business Enterprises (SMOBE) and a Survey of Women-Owned Enterprises (SWOBE) as determined by the U.S. Census Bureau; and (3) detailed contract files for each racial group. Id.

The court found the study determined an average annual utilization of 23 percent for DBEs, and to examine past discrimination, several analyses were run to measure the disparity among DBEs by race. *Id*. at 648. The Study found that all but one category was underutilized among the racial and ethnic groups. *Id.* All groups other than Asian DBEs were found to be underutilized. *Id.*

The court held that the test utilized by the study, "conducted to establish a pattern of discrimination against DBEs, proved that discrimination occurred against DBEs during the pre-qualification process and in the number of contracts that are awarded to DBEs. *Id*. at 649. The court found that DBEs are more likely than non-DBEs to be pre-qualified for small construction contracts, but are less likely to pre-qualify for larger construction projects. *Id.*

For fiscal year 2010, the study consultant followed the "three-step process pursuant to USDOT regulations to establish the NJT DBE goal." *Id*. at 649. First, the consultant determined "the base figure for the relative availability of DBEs in the specific industries and geographical market from which DBE and non-DBE contractors are drawn." *Id*. In determining the base figure, the consultant (1) defined the geographic marketplace, (2) identified "the relevant industries in which NJ Transit contracts," and (3) calculated "the weighted availability measure." *Id*. at 649.

The court found that the study consultant used political jurisdictional methods and virtual methods to pinpoint the location of contracts and/or contractors for NJT, and determined that the geographical market place for NJT contracts included New Jersey, New York and Pennsylvania. *Id.* at 649. The consultant used contract files obtained from NJT and data obtained from Dun & Bradstreet to identify the industries with which NJT contracts in these geographical areas. *Id*. The consultant then used existing and estimated expenditures in these particular industries to determine weights corresponding to NJT contracting patterns in the different industries for use in the availability analysis. *Id*.

The availability of DBEs was calculated by using the following data: Unified Certification Program Business Directories for the states of New Jersey, New York and Pennsylvania; NJT Vendor List; Dun & Bradstreet database; 2002 Survey of Small Business Owners; and NJT Pre-Qualification List. *Id*. at 649-650. The availability rates were then "calculated by comparing the number of ready, willing, and able minority and women-owned firms in the defined geographic marketplace to the total number of ready, willing, and able firms in the same geographic marketplace. *Id*. The availability rates in each industry were weighed in accordance with NJT expenditures to determine a base figure. *Id.*

Second, the consultant adjusted the base figure due to evidence of discrimination against DBE prime contractors and disparities in small purchases and construction pre-qualification. *Id*. at 650. The discrimination analysis examined discrimination in small purchases, discrimination in pre-qualification, two regression analyses, an Essex County disparity study, market discrimination, and previous utilization. *Id*. at 650.

The Final Recommendations Report noted that there were sizeable differences in the small purchases awards to DBEs and non-DBEs with the awards to DBEs being significantly smaller. *Id*. at 650. DBEs were also found to be less likely to be pre-qualified for contracts over $1 million in comparison to similarly situated non-DBEs. *Id*. The regression analysis using the dummy variable method yielded an average estimate of a discriminatory effect of -28.80 percent. *Id*. The discrimination regression analysis using the residual difference method showed that on average 12.2 percent of the contract amount disparity awarded to DBEs and non-DBEs was unexplained. *Id*.

The consultant also considered evidence of discrimination in the local market in accordance with 49 C.F.R. § 26.45(d). The Final Recommendations Report cited in the 2005 Essex County Disparity Study suggested that discrimination in the labor market contributed to the unexplained portion of the self-employment, employment, unemployment, and wage gaps in Essex County, New Jersey. *Id*. at 650.

The consultant recommended that NJT focus on increasing the number of DBE prime contractors. Because qualitative evidence is difficult to quantify, according to the consultant, only the results from the regression analyses were used to adjust the base goal. *Id*. The base goal was then adjusted from 19.74 percent to 23.79 percent. *Id*.

Third, in order to partition the DBE goal by race-neutral and race-conscious methods, the consultant analyzed the share of all DBE contract dollars won with no goals. *Id*. at 650. He also performed two different regression analyses: one involving predicted DBE contract dollars and DBE receipts if the goal was set at zero. *Id*. at 651. The second method utilized predicted DBE contract dollars with goals and predicted DBE contract dollars without goals to forecast how much firms with goals would receive had they not included the goals. *Id*. The consultant averaged his results from all three methods to conclude that the fiscal year 2010 NJT a portion of the race-neutral DBE goal should be 11.94 percent and a portion of the race-conscious DBE goal should be 11.84 percent. *Id*. at 651.

The district court applied the strict scrutiny standard of review. The district court already decided, in the course of the motions for summary judgment, that compelling interest was satisfied as New Jersey was entitled to adopt the federal government's compelling interest in enacting TEA-21 and its implementing regulations. *Id*. at 652, *citing Geod v. N.J. Transit Corp*., 678 F.Supp.2d 276, 282 (D.N.J. 2009). Therefore, the court limited its analysis to whether NJT's DBE program was narrowly tailored to further that compelling interest in accordance with "its grant of authority under federal law." *Id*. at 652 *citing Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715, 722 (7th Cir. 2007).

Applying *Northern Contracting v. Illinois.* The district court clarified its prior ruling in 2009 (see 678 F.Supp.2d 276) regarding summary judgment, that the court agreed with the holding in Northern Contracting, Inc. v. Illinois, that "a challenge to a state's application of a federally mandated program must be limited to the question of whether the state exceeded its authority." Id. at 652 quoting Northern Contracting, 473 F.3d at 721. The district court in Geod followed the Seventh Circuit explanation that when a state department of transportation is acting as an instrument of federal policy, a plaintiff cannot collaterally attack the federal regulations through a challenge to a state's program. Id. at 652, citing Northern Contracting, 473 F.3d at 722. Therefore, the district court held that the inquiry is limited to the question of whether the state department of transportation

"exceeded its grant of authority under federal law." Id. at 652-653, quoting Northern Contracting, 473 F.3d at 722 and citing also Tennessee Asphalt Co. v. Farris, 942 F.2d 969, 975 (6th Cir. 1991).

The district court found that the holding and analysis in *Northern Contracting* does not contradict the Eighth Circuit's analysis in *Sherbrooke Turf, Inc. v. Minnesota Department of Transportation*, 345 F.3d 964, 970-71 (8th Cir. 2003). *Id*. at 653. The court held that the Eighth Circuit's discussion of whether the DBE programs as implemented by the State of Minnesota and the State of Nebraska were narrowly tailored focused on whether the states were following the USDOT regulations. *Id*. at 653 *citing Sherbrooke Turf*, 345 F.3d 973-74. Therefore, "only when the state exceeds its federal authority is it susceptible to an as-applied constitutional challenge." *Id*. at 653 *quoting Western States Paving Co., Inc. v. Washington State Department of Transportation*, 407 F.3d 983 (9th Cir. 2005)(McKay, C.J.)(concurring in part and dissenting in part) and *citing South Florida Chapter of the Associated General Contractors v. Broward County*, 544 F.Supp.2d 1336, 1341 (S.D.Fla.2008).

The court held the initial burden of proof falls on the government, but once the government has presented proof that its affirmative action plan is narrowly tailored, the party challenging the affirmative action plan bears the ultimate burden of proving that the plan is unconstitutional. *Id*. at 653.

In analyzing whether NJT's DBE program was constitutionally defective, the district court focused on the basis of plaintiffs' argument that it was not narrowly tailored because it includes in the category of DBEs racial or ethnic groups as to which the plaintiffs alleged NJT had no evidence of past discrimination. *Id*. at 653. The court found that most of plaintiffs' arguments could be summarized as questioning whether NJT presented demonstrable evidence of the availability of ready, willing and able DBEs as required by 49 C.F.R. § 26.45. *Id*. The court held that NJT followed the goal setting process required by the federal regulations. *Id*. The court stated that NJT began this process with the 2002 disparity study that examined past discrimination and found that all of the groups listed in the regulations were underutilized with the exception of Asians. *Id*. at 654. In calculating the fiscal year 2010 goals, the consultant used contract files and data from Dun & Bradstreet to determine the geographical location corresponding to NJT contracts and then further focused that information by weighting the industries according to NJT's use. *Id*.

The consultant used various methods to calculate the availability of DBEs, including: the UCP Business Directories for the states of New Jersey, New York and Pennsylvania; NJT Vendor List; Dun & Bradstreet database; 2002 Survey of Small Business Owners; and NJT Pre-Qualification List. *Id*. at 654. The court stated that NJT only utilized one of the examples listed in 49 C.F.R. § 26.45(c), the DBE directories method, in formulating the fiscal year 2010 goals. *Id*.

The district court pointed out, however, the regulations state that the "examples are provided as a starting point for your goal setting process and that the examples are not intended as an exhaustive list. *Id*. at 654, *citing* 46 C.F.R. § 26.45(c). The court concluded the regulations clarify that other methods or combinations of methods to determine a base figure may be used. *Id*. at 654.

The court stated that NJT had used these methods in setting goals for prior years as demonstrated by the reports for 2006 and 2009. *Id*. at 654. In addition, the court noted that the Seventh Circuit held that a custom census, the Dun & Bradstreet database, and the IDOT's list of DBEs were an

acceptable combination of methods with which to determine the base figure for TEA-21 purposes. *Id*. at 654, *citing Northern Contracting*, 473 F.3d at 718.

The district court found that the expert witness for plaintiffs had not convinced the court that the data were faulty, and the testimony at trial did not persuade the court that the data or regression analyses relied upon by NJT were unreliable or that another method would provide more accurate results. *Id.* at 654-655.

The court in discussing step two of the goals setting process pointed out that the data examined by the consultant is listed in the regulations as proper evidence to be used to adjust the base figure. *Id*. at 655, *citing* 49 C.F.R. § 26.45(d). These data included evidence from disparity studies and statistical disparities in the ability of DBEs to get pre-qualification. *Id.* at 655. The consultant stated that evidence of societal discrimination was not used to adjust the base goal and that the adjustment to the goal was based on the discrimination analysis, which controls for size of firm and effect of having a DBE goal. *Id*. at 655.

The district court then analyzed NJT's division of the adjusted goal into race-conscious and race-neutral portions. *Id.* at 655. The court noted that narrowly tailoring does not require exhaustion of every conceivable race-neutral alternative, but instead requires serious, good faith consideration of workable race-neutral alternatives. *Id.* at 655. The court agreed with *Western States Paving* that only "when race-neutral efforts prove inadequate do these regulations authorize a State to resort to race-conscious measures to achieve the remainder of its DBE utilization goal." *Id.* at 655, *quoting Western States Paving*, 407 F.3d at 993-94.

The court found that the methods utilized by NJT had been used by it on previous occasions, which were approved by the USDOT. *Id*. at 655. The methods used by NJT, the court found, also complied with the examples listed in 49 C.F.R. § 26.51, including arranging solicitations, times for the presentation of bids, quantities, specifications, and delivery schedules in ways that facilitate DBE participation; providing pre-qualification assistance; implementing supportive services programs; and ensuring distribution of DBE directories. *Id*. at 655. The court held that based on these reasons and following the *Northern Contracting, Inc. v. Illinois* line of cases, NJT's DBE program did not violate the Constitution as it did not exceed its federal authority. *Id*. at 655.

However, the district court also found that even under the *Western States Paving Co., Inc. v. Washington State DOT* standard, the NJT program still was constitutional. *Id.* at 655. Although the court found that the appropriate inquiry is whether NJT exceeded its federal authority as detailed in *Northern Contracting, Inc. v. Illinois*, the court also examined the NJT DBE program under *Western States Paving Co. v. Washington State DOT*. *Id.* at 655-656. The court stated that under *Western States Paving*, a Court must "undertake an as-applied inquiry into whether [the state's] DBE program is narrowly tailored." *Id*. at 656, *quoting Western States Paving*, 407 F.3d at 997.

Applying *Western States Paving.* The district court then analyzed whether the NJT program was narrowly tailored applying Western States Paving. Under the first prong of the narrowly tailoring analysis, a remedial program is only narrowly tailored if its application is limited to those minority groups that have actually suffered discrimination. Id. at 656, citing Western States Paving, 407 F.3d at 998. The court acknowledged that according to the 2002 Final Report, the ratios of DBE utilization to DBE availability was 1.31. Id. at 656. However, the court found that the Plaintiffs' argument failed

as the facts in Western States Paving were distinguishable from those of NJT, because NJT did receive complaints, i.e., anecdotal evidence, of the lack of opportunities for Asian firms. Id. at 656. NJT employees testified that Asian firms informally and formally complained of a lack of opportunity to grow and indicated that the DBE program was assisting with this issue. Id. In addition, Plaintiff's expert conceded that Asian firms have smaller average contract amounts in comparison to non-DBE firms. Id.

The Plaintiff relied solely on the utilization rate as evidence that Asians are not discriminated against in NJT contracting. *Id*. at 656. The court held this was insufficient to overcome the consultant's determination that discrimination did exist against Asians, and thus this group was properly included in the DBE program. *Id*. at 656.

The district court rejected Plaintiffs' argument that the first step of the narrow tailoring analysis was not met because NJT focuses its program on sub-contractors when NJT's expert identified "prime contracting" as the area in which NJT procurements evidence discrimination. *Id*. at 656. The court held that narrow tailoring does not require exhaustion of every conceivable race-neutral alternative but it does require serious, good faith consideration of workable race-neutral alternatives. *Id*. at 656, *citing Sherbrook Turf*, 345 F.3d at 972 (*quoting Grutter v. Bollinger*, 539 U.S. 306, 339, (2003)). In its efforts to implement race-neutral alternatives, the court found NJT attempted to break larger contracts up in order to make them available to smaller contractors and continues to do so when logistically possible and feasible to the procurement department. *Id*. at 656-657.

The district court found NJT satisfied the third prong of the narrowly tailored analysis, the "relationship of the numerical goals to the relevant labor market." *Id*. at 657. Finally, under the fourth prong, the court addressed the impact on third-parties. *Id*. at 657. The court noted that placing a burden on third parties is not impermissible as long as that burden is minimized. *Id*. at 657, *citing Western States Paving*, 407 F.3d at 995. The court stated that instances will inevitably occur where non-DBEs will be bypassed for contracts that require DBE goals. However, TEA-21 and its implementing regulations contain provisions intended to minimize the burden on non-DBEs. *Id*. at 657, *citing Western States Paving*, 407 F.3d at 994-995.

The court pointed out the Ninth Circuit in *Western States Paving* found that inclusion of regulations allowing firms that were not presumed to be DBEs to demonstrate that they were socially and economically disadvantaged, and thus qualified for DBE programs, as well as the net worth limitations, were sufficient to minimize the burden on DBEs. *Id*. at 657, *citing Western States Paving*, 407 F.3d at 955. The court held that the Plaintiffs did not provide evidence that NJT was not complying with implementing regulations designed to minimize harm to third parties. *Id*.

Therefore, even if the district court utilized the as-applied narrow tailoring inquiry set forth in *Western States Paving*, NJT's DBE program would not be found to violate the Constitution, as the court held it was narrowly tailored to further a compelling governmental interest. *Id*. at 657.

9. Geod Corporation v. New Jersey Transit Corporation, et. seq. 678 F.Supp.2d 276, 2009 WL 2595607 (D.N.J. August 20, 2009)

Plaintiffs Geod and its officers, who are white males, sued the NJT and state officials seeking a declaration that NJT's DBE program was unconstitutional and in violation of the United States 5th and 14th Amendment to the United States Constitution and the Constitution of the State of New Jersey, and seeking a permanent injunction against NJT for enforcing or utilizing its DBE program. The NJT's DBE program was implemented in accordance with the Federal DBE Program and TEA-21 and 49 C.F.R. Part 26.

The parties filed cross Motions for Summary Judgment. The plaintiff Geod challenged the constitutionality of NJT's DBE program for multiple reasons, including alleging NJT could not justify establishing a program using race- and sex-based preferences; the NJT's disparity study did not provide a sufficient factual predicate to justify the DBE Program; NJT's statistical evidence did not establish discrimination; NJT did not have anecdotal data evidencing a "strong basis in evidence" of discrimination which justified a race- and sex-based program; NJT's program was not narrowly tailored and over-inclusive; NJT could not show an exceedingly persuasive justification for gender preferences; and that NJT's program was not narrowly tailored because race-neutral alternatives existed. In opposition, NJT filed a Motion for Summary Judgment asserting that its DBE program was narrowly tailored because it fully complied with the requirements of the Federal DBE Program and TEA-21.

The district court held that states and their agencies are entitled to adopt the federal governments' compelling interest in enacting TEA-21 and its implementing regulations. 2009 WL 2595607 at *4. The court stated that plaintiff's argument that NJT cannot establish the need for its DBE program was a "red herring, which is unsupported." The plaintiff did not question the constitutionality of the compelling interest of the Federal DBE Program. The court held that all states "inherit the federal governments' compelling interest in establishing a DBE program." *Id*.

The court found that establishing a DBE program "is not contingent upon a state agency demonstrating a need for same, as the federal government has already done so." *Id*. The court concluded that this reasoning rendered plaintiff's assertions that NJT's disparity study did not have sufficient factual predicate for establishing its DBE program, and that no exceedingly persuasive justification was found to support gender based preferences, as without merit. *Id*. The court held that NJT does not need to justify establishing its DBE program, as it has already been justified by the legislature. *Id*.

The court noted that both plaintiff's and defendant's arguments were based on an alleged split in the Federal Circuit Courts of Appeal. Plaintiff Geod relies on *Western States Paving Company v. Washington State DOT*, 407 F.3d 983(9th Cir. 2005) for the proposition that an as-applied challenge to the constitutionality of a particular DBE program requires a demonstration by the recipient of federal funds that the program is narrowly tailored. *Id* at *5. In contrast, the NJT relied primarily on *Northern Contracting, Inc. v. State of Illinois*, 473 F.3d 715 (7th Cir. 2007) for the proposition that if a DBE program complies with TEA-21, it is narrowly tailored. *Id*.

The court viewed the various Federal Circuit Court of Appeals decisions as fact specific determinations which have led to the parties distinguishing cases without any substantive difference in the application of law. *Id*.

The court reviewed the decisions by the Ninth Circuit in *Western States Paving* and the Seventh Circuit of *Northern Contracting*. In *Western States Paving*, the district court stated that the Ninth Circuit held for a DBE program to pass constitutional muster, it must be narrowly tailored; specifically, the recipient of federal funds must evidence past discrimination in the relevant market in order to utilize race conscious DBE goals. *Id*. at *5. The Ninth Circuit, according to district court, made a fact specific determination as to whether the DBE program complied with TEA-21 in order to decide if the program was narrowly tailored to meet the federal regulation's requirements. The district court stated that the requirement that a recipient must evidence past discrimination "is nothing more than a requirement of the regulation." *Id*.

The court stated that the Seventh Circuit in *Northern Contracting* held a recipient must demonstrate that its program is narrowly tailored, and that generally a recipient is insulated from this sort of constitutional attack absent a showing that the state exceeded its federal authority. *Id*., *citing Northern Contracting*, 473 F.3d at 721. The district court held that implicit in *Northern Contracting* is the fact one may challenge the constitutionality of a DBE program, as it is applied, to the extent that the program exceeds its federal authority. *Id*.

The court, therefore, concluded that it must determine first whether NJT's DBE program complies with TEA-21, then whether NJT exceeded its federal authority in its application of its DBE program. In other words, the district court stated it must determine whether the NJT DBE program complies with TEA-21 in order to determine whether the program, as implemented by NJT, is narrowly tailored. *Id*.

The court pointed out that the Eighth Circuit Court of Appeals in *Sherbrook Turf, Inc. v. Minnesota DOT*, 345 F.3d 964 (8th Cir. 2003) found Minnesota's DBE program was narrowly tailored because it was in compliance with TEA-21's requirements. The Eighth Circuit in *Sherbrook*, according to the district court, analyzed the application of Minnesota's DBE program to ensure compliance with TEA-21's requirements to ensure that the DBE program implemented by Minnesota DOT was narrowly tailored. *Id*. at *5.

The court held that TEA-21 delegates to each state that accepts federal transportation funds the responsibility of implementing a DBE program that comports with TEA-21. In order to comport with TEA-21, the district court stated a recipient must (1) determine an appropriate DBE participation goal, (2) examine all evidence and evaluate whether an adjustment, if any, is needed to arrive at their goal, and (3) if the adjustment is based on continuing effects of past discrimination, provide demonstrable evidence that is logically and directly related to the effect for which the adjustment is sought. *Id*. at *6, *citing Western States Paving Company*, 407 F.3d at 983, 988.

First, the district court stated a recipient of federal funds must determine, at the local level, the figure that would constitute an appropriate DBE involvement goal, based on their relative availability of DBEs. *Id*. at *6, *citing* 49 C.F.R. § 26.45(c). In this case, the court found that NJT did determine a base figure for the relative availability of DBEs, which accounted for demonstrable evidence of local market conditions and was designed to be rationally related to the relative availability of DBEs. *Id*.

The court pointed out that NJT conducted a disparity study, and the disparity study utilized NJT's DBE lists from fiscal years 1995-1999 and Census Data to determine its base DBE goal. The court noted that the plaintiffs' argument that the data used in the disparity study were stale was without merit and had no basis in law. The court found that the disparity study took into account the primary industries, primary geographic market, and race neutral alternatives, then adjusted its goal to encompass these characteristics. *Id.* at *6.

The court stated that the use of DBE directories and Census data are what the legislature intended for state agencies to utilize in making a base DBE goal determination. *Id.* Also, the court stated that "perhaps more importantly, NJT's DBE goal was approved by the USDOT every year from 2002 until 2008." *Id.* at *6. Thus, the court found NJT appropriately determined their DBE availability, which was approved by the USDOT, pursuant to 49 C.F.R. § 26.45(c). *Id.* at *6. The court held that NJT demonstrated its overall DBE goal is based on demonstrable evidence of the availability of ready, willing, and able DBEs relative to all businesses ready, willing, and able to participate in DOT assisted contracts and reflects its determination of the level of DBE participation it would expect absent the effects of discrimination. *Id.*

Also of significance, the court pointed out that plaintiffs did not provide any evidence that NJT did not set a DBE goal based upon 49 C.F. § 26.45(c). The court thus held that genuine issues of material fact remain only as to whether a reasonable jury may find that the method used by NJT to determine its DBE goal was sufficiently narrowly tailored. *Id.* at *6.

The court pointed out that to determine what adjustment to make, the disparity study examined qualitative data such as focus groups on the pre-qualification status of DBEs, working with prime contractors, securing credit, and its effect on DBE participation, as well as procurement officer interviews to analyze, and compare and contrast their relationships with non-DBE vendors and DBE vendors. *Id.* at *7. This qualitative information was then compared to DBE bids and DBE goals for each year in question. NJT's adjustment to its DBE goal also included an analysis of the overall disparity ratio, as well as, DBE utilization based on race, gender and ethnicity. *Id.* A decomposition analysis was also performed. *Id.*

The court concluded that NJT provided evidence that it, at a minimum, examined the current capacity of DBEs to perform work in its DOT-assisted contracting program, as measured by the volume of work DBEs have performed in recent years, as well as utilizing the disparity study itself. The court pointed out there were two methods specifically approved by 49 C.F.R. § 26.45(d). *Id.*

The court also found that NJT took into account race neutral measures to ensure that the greatest percentage of DBE participation was achieved through race and gender neutral means. The district court concluded that "critically," plaintiffs failed to provide evidence of another, more perfect, method that could have been utilized to adjust NJT's DBE goal. *Id.* at *7. The court held that genuine issues of material fact remain only as to whether NJT's adjustment to its DBE goal is sufficiently narrowly tailored and thus constitutional. *Id.*

NJT, the court found, adjusted its DBE goal to account for the effects of past discrimination, noting the disparity study took into account the effects of past discrimination in the pre-qualification process of DBEs. *Id.* at *7. The court quoted the disparity study as stating that it found non-trivial

and statistically significant measures of discrimination in contract amounts awarded during the study period. *Id*. at *8.

The court found, however, that what was "gravely critical" about the finding of the past effects of discrimination is that it only took into account six groups including American Indian, Hispanic, Asian, blacks, women and "unknown," but did not include an analysis of past discrimination for the ethnic group "Iraqi," which is now a group considered to be a DBE by the NJT. *Id*. Because the disparity report included a category entitled "unknown," the court held a genuine issue of material fact remains as to whether "Iraqi" is legitimately within NJT's defined DBE groups and whether a demonstrable finding of discrimination exists for Iraqis. Therefore, the court denied both plaintiffs' and defendants' Motions for Summary Judgment as to the constitutionality of NJT's DBE program.

The court also held that because the law was not clearly established at the time NJT established its DBE program to comply with TEA-21, the individual state defendants were entitled to qualified immunity and their Motion for Summary Judgment as to the state officials was granted. The court, in addition, held that plaintiff's Title VI claims were dismissed because the individual defendants were not recipients of federal funds, and that the NJT as an instrumentality of the State of New Jersey is entitled to sovereign immunity. Therefore, the court held that the plaintiff's claims based on the violation of 42 U.S.C. § 1983 were dismissed and NJT's Motion for Summary Judgment was granted as to that claim.

10. South Florida Chapter of the Associated General Contractors v. Broward County, Florida, 544 F. Supp.2d 1336 (S.D. Fla. 2008)

Plaintiff, the South Florida Chapter of the Associated General Contractors, brought suit against the Defendant, Broward County, Florida challenging Broward County's implementation of the Federal DBE Program and Broward County's issuance of contracts pursuant to the Federal DBE Program. Plaintiff filed a Motion for a Preliminary Injunction. The court considered only the threshold legal issue raised by Plaintiff in the Motion, namely whether or not the decision in *Western States Paving Company v. Washington State Department of Transportation*, 407 F.3d 983 (9th Cir. 2005) should govern the Court's consideration of the merits of Plaintiffs' claim. 544 F.Supp.2d at 1337. The court identified the threshold legal issue presented as essentially, "whether compliance with the federal regulations is all that is required of Defendant Broward County." *Id*. at 1338.

The Defendant County contended that as a recipient of federal funds implementing the Federal DBE Program, all that is required of the County is to comply with the federal regulations, relying on case law from the Seventh Circuit in support of its position. 544 F.Supp.2d at 1338, *citing Northern Contracting v. Illinois*, 473 F.3d 715 (7th Cir. 2007). The Plaintiffs disagreed, and contended that the County must take additional steps beyond those explicitly provided for in the federal regulations to ensure the constitutionality of the County's implementation of the Federal DBE Program, as administered in the County, *citing Western States Paving*, 407 F.3d 983. The court found that there was no case law on point in the Eleventh Circuit Court of Appeals. *Id*. at 1338.

Ninth Circuit Approach: *Western States*. The district court analyzed the Ninth Circuit Court of Appeals approach in Western States Paving and the Seventh Circuit approach in Milwaukee County Pavers Association v. Fiedler, 922 F.2d 419 (7th Cir. 1991) and Northern Contracting, 473 F.3d 715. The district court in Broward County concluded that the Ninth Circuit in Western States Paving held

that whether Washington's DBE program is narrowly tailored to further Congress's remedial objective depends upon the presence or absence of discrimination in the State's transportation contracting industry, and that it was error for the district court in Western States Paving to uphold Washington's DBE program simply because the state had complied with the federal regulations. 544 F.Supp.2d at 1338-1339. The district court in Broward County pointed out that the Ninth Circuit in Western States Paving concluded it would be necessary to undertake an as-applied inquiry into whether the state's program is narrowly tailored. 544 F.Supp.2d at 1339, citing Western States Paving, 407 F.3d at 997.

In a footnote, the district court in *Broward County* noted that the USDOT "appears not to be of one mind on this issue, however." 544 F.Supp.2d at 1339, n. 3. The district court stated that the "United States DOT has, in analysis posted on its Web site, implicitly instructed states and localities outside of the Ninth Circuit to ignore the *Western States Paving* decision, which would tend to indicate that this agency may not concur with the 'opinion of the United States' as represented in *Western States*." 544 F.Supp.2d at 1339, n. 3. The district court noted that the United States took the position in the *Western States Paving* case that the "state would have to have evidence of past or current effects of discrimination to use race-conscious goals." 544 F.Supp.2d at 1338, *quoting Western States Paving*.

The Court also pointed out that the Eighth Circuit Court of Appeals in *Sherbrooke Turf, Inc. v. Minnesota Department of Transportation*, 345 F.3d 964 (8th Cir. 2003) reached a similar conclusion as in *Western States Paving*. 544 F.Supp.2d at 1339. The Eighth Circuit in *Sherbrooke*, like the court in *Western States Paving*, "concluded that the federal government had delegated the task of ensuring that the state programs are narrowly tailored, and looked to the underlying data to determine whether those programs were, in fact, narrowly tailored, rather than simply relying on the states' compliance with the federal regulations." 544 F.Supp.2d at 1339.

Seventh Circuit Approach: Milwaukee County and Northern Contracting. The district court in Broward County next considered the Seventh Circuit approach. The Defendants in Broward County agreed that the County must make a local finding of discrimination for its program to be constitutional. 544 F.Supp.2d at 1339. The County, however, took the position that it must make this finding through the process specified in the federal regulations, and should not be subject to a lawsuit if that process is found to be inadequate. Id. In support of this position, the County relied primarily on the Seventh Circuit's approach, first articulated in Milwaukee County Pavers Association v. Fiedler, 922 F.2d 419 (7th Cir. 1991), then reaffirmed in Northern Contracting, 473 F.3d 715 (7th Cir. 2007). 544 F.Supp.2d at 1339.

Based on the Seventh Circuit approach, insofar as the state is merely doing what the statute and federal regulations envisage and permit, the attack on the state is an impermissible collateral attack on the federal statute and regulations. 544 F.Supp.2d at 1339-1340. This approach concludes that a state's role in the federal program is simply as an agent, and insofar "as the state is merely complying with federal law it is acting as the agent of the federal government and is no more subject to being enjoined on equal protection grounds than the federal civil servants who drafted the regulations." 544 F.Supp.2d at 1340, *quoting Milwaukee County Pavers*, 922 F.2d at 423.

The Ninth Circuit addressed the *Milwaukee County Pavers* case in *Western States Paving*, and attempted to distinguish that case, concluding that the constitutionality of the federal statute and regulations were not at issue in *Milwaukee County Pavers*. 544 F.Supp.2d at 1340. In 2007, the Seventh Circuit followed

up the critiques made in *Western States Paving* in the *Northern Contracting* decision. *Id*. The Seventh Circuit in *Northern Contracting* concluded that the majority in *Western States Paving* misread its decision in *Milwaukee County Pavers* as did the Eighth Circuit Court of Appeals in *Sherbrooke*. 544 F.Supp.2d at 1340, *citing Northern Contracting*, 473 F.3d at 722, n.5. The district court in Broward County pointed out that the Seventh Circuit in *Northern Contracting* emphasized again that the state DOT is acting as an instrument of federal policy, and a plaintiff cannot collaterally attack the federal regulations through a challenge to the state DOT's program. 544 F.Supp.2d at 1340, *citing Northern Contracting*, 473 F.3d at 722.

The district court in *Broward County* stated that other circuits have concurred with this approach, including the Sixth Circuit Court of Appeals decision in *Tennessee Asphalt Company v. Farris*, 942 F.2d 969 (6th Cir. 1991). 544 F.Supp.2d at 1340. The district court in *Broward County* held that the Tenth Circuit Court of Appeals took a similar approach in *Ellis v. Skinner*, 961 F.2d 912 (10th Cir. 1992). 544 F.Supp.2d at 1340. The district court in *Broward County* held that these Circuit Courts of Appeal have concluded that "where a state or county fully complies with the federal regulations, it cannot be enjoined from carrying out its DBE program, because any such attack would simply constitute an improper collateral attack on the constitutionality of the regulations." 544 F.Supp.2d at 1340-41.

The district court in *Broward County* held that it agreed with the approach taken by the Seventh Circuit Court of Appeals in *Milwaukee County Pavers* and *Northern Contracting* and concluded that "the appropriate factual inquiry in the instant case is whether or not Broward County has fully complied with the federal regulations in implementing its DBE program." 544 F.Supp.2d at 1341. It is significant to note that the Plaintiffs did not challenge the as-applied constitutionality of the federal regulations themselves, but rather focused their challenge on the constitutionality of Broward County's actions in carrying out the DBE program. 544 F.Supp.2d at 1341. The district court in *Broward County* held that this type of challenge is "simply an impermissible collateral attack on the constitutionality of the statute and implementing regulations." *Id*.

The district court concluded that it would apply the case law as set out in the Seventh Circuit Court of Appeals and concurring circuits, and that the trial in this case would be conducted solely for the purpose of establishing whether or not the County has complied fully with the federal regulations in implementing its DBE program. 544 F.Supp.2d at 1341.

Subsequently, there was a Stipulation of Dismissal filed by all parties in the district court, and an Order of Dismissal was filed without a trial of the case in November 2008.

11. Klaver Construction, Inc. v. Kansas DOT, 211 F. Supp.2d 1296 (D. Kan. 2002)

This is another case that involved a challenge to the USDOT Regulations that implement TEA-21 (49 C.F.R. Part 26), in which the plaintiff contractor sought to enjoin the Kansas Department of Transportation ("DOT") from enforcing its DBE Program on the grounds that it violates the Equal Protection Clause under the Fourteenth Amendment. This case involves a direct constitutional challenge to racial and gender preferences in federally-funded state highway contracts. This case concerned the constitutionality of the Kansas DOT's implementation of the Federal DBE Program, and the constitutionality of the gender-based policies of the federal government and the race- and gender-based policies of the Kansas DOT. The court granted the federal and state defendants' (USDOT and Kansas DOT) Motions to Dismiss based on lack of standing. The court held the

contractor could not show the specific aspects of the DBE Program that it contends are unconstitutional have caused its alleged injuries.

F. Recent Decisions Involving State or Local Government MBE/WBE Programs in Other Jurisdictions

Recent Decisions in Federal Circuit Courts of Appeal

1. H. B. Rowe Co., Inc. v. W. Lyndo Tippett, NCDOT, et al., 615 F.3d 233 (4th Cir. 2010)

The State of North Carolina enacted statutory legislation that required prime contractors to engage in good faith efforts to satisfy participation goals for minority and women subcontractors on state-funded projects. (See facts as detailed in the decision of the United States District Court for the Eastern District of North Carolina discussed below.). The plaintiff, a prime contractor, brought this action after being denied a contract because of its failure to demonstrate good faith efforts to meet the participation goals set on a particular contract that it was seeking an award to perform work with the North Carolina Department of Transportation ("NCDOT"). Plaintiff asserted that the participation goals violated the Equal Protection Clause and sought injunctive relief and money damages.

After a bench trial, the district court held the challenged statutory scheme constitutional both on its face and as applied, and the plaintiff prime contractor appealed. 615 F.3d 233 at 236. The Court of Appeals held that the State did not meet its burden of proof in all respects to uphold the validity of the state legislation. But, the Court agreed with the district court that the State produced a strong basis in evidence justifying the statutory scheme on its face, and as applied to African American and Native American subcontractors, and that the State demonstrated that the legislative scheme is narrowly tailored to serve its compelling interest in remedying discrimination against these racial groups. The Court thus affirmed the decision of the district court in part, reversed it in part and remanded for further proceedings consistent with the opinion. *Id*.

The Court found that the North Carolina statutory scheme "largely mirrored the federal Disadvantaged Business Enterprise ("DBE") program, with which every state must comply in awarding highway construction contracts that utilize federal funds." 615 F.3d 233 at 236. The Court also noted that federal courts of appeal "have uniformly upheld the Federal DBE Program against equal-protection challenges." *Id*., at footnote 1, *citing*, *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147 (10th Cir. 2000).

In 2004, the State retained a consultant to prepare and issue a third study of subcontractors employed in North Carolina's highway construction industry. The study, according to the Court, marshaled evidence to conclude that disparities in the utilization of minority subcontractors persisted. 615 F.3d 233 at 238. The Court pointed out that in response to the study, the North Carolina General Assembly substantially amended state legislation section 136-28.4 and the new law went into effect in 2006. The new statute modified the previous statutory scheme, according to the Court in five important respects. *Id.*

First, the amended statute expressly conditions implementation of any participation goals on the findings of the 2004 study. Second, the amended statute eliminates the 5 and 10 percent annual goals that were set in the predecessor statute. 615 F.3d 233 at 238-239. Instead, as amended, the statute requires the NCDOT to "establish annual aspirational goals, not mandatory goals, … for the overall participation in contracts by disadvantaged minority-owned and women-owned businesses … [that]

shall not be applied rigidly on specific contracts or projects." *Id.* at 239, *quoting*, N.C. Gen.Stat. § 136-28.4(b)(2010). The statute further mandates that the NCDOT set "contract-specific goals or project-specific goals … for each disadvantaged minority-owned and women-owned business category that has demonstrated significant disparity in contract utilization" based on availability, as determined by the study. *Id.*

Third, the amended statute narrowed the definition of "minority" to encompass only those groups that have suffered discrimination. *Id.* at 239. The amended statute replaced a list of defined minorities to any certain groups by defining "minority" as "only those racial or ethnicity classifications identified by [the study] … that have been subjected to discrimination in the relevant marketplace and that have been adversely affected in their ability to obtain contracts with the Department." *Id.* at 239 *quoting* section 136-28.4(c)(2)(2010).

Fourth, the amended statute required the NCDOT to reevaluate the Program over time and respond to changing conditions. 615 F.3d 233 at 239. Accordingly, the NCDOT must conduct a study similar to the 2004 study at least every five years. *Id.* § 136-28.4(b). Finally, the amended statute contained a sunset provision which was set to expire on August 31, 2009, but the General Assembly subsequently extended the sunset provision to August 31, 2010. *Id.* Section 136-28.4(e) (2010).

The Court also noted that the statute required only good faith efforts by the prime contractors to utilize subcontractors, and that the good faith requirement, the Court found, proved permissive in practice: prime contractors satisfied the requirement in 98.5 percent of cases, failing to do so in only 13 of 878 attempts. 615 F.3d 233 at 239.

Strict scrutiny. The Court stated the strict scrutiny standard was applicable to justify a race-conscious measure, and that it is a substantial burden but not automatically "fatal in fact." 615 F.3d 233 at 241. The Court pointed out that "[t]he unhappy persistence of both the practice and the lingering effects of racial discrimination against minority groups in this country is an unfortunate reality, and government is not disqualified from acting in response to it." *Id.* at 241 *quoting Alexander v. Estepp*, 95 F.3d 312, 315 (4th Cir. 1996). In so acting, a governmental entity must demonstrate it had a compelling interest in "remedying the effects of past or present racial discrimination." *Id.*, *quoting Shaw v. Hunt*, 517 U.S. 899, 909 (1996).

Thus, the Court found that to justify a race-conscious measure, a state must identify that discrimination, public or private, with some specificity, and must have a strong basis in evidence for its conclusion that remedial action is necessary. 615 F.3d 233 at 241 *quoting*, *Croson*, 488 U.S. at 504 and *Wygant v. Jackson Board of Education*, 476 U.S. 267, 277 (1986)(plurality opinion).

The Court significantly noted that: "There is no 'precise mathematical formula to assess the quantum of evidence that rises to the *Croson* 'strong basis in evidence' benchmark.'" 615 F.3d 233 at 241, *quoting Rothe Dev. Corp. v. Department of Defense,* 545 F.3d 1023, 1049 (Fed.Cir. 2008). The Court stated that the sufficiency of the State's evidence of discrimination "must be evaluated on a case-by-case basis." *Id.* at 241. (internal quotation marks omitted).

The Court held that a state "need not conclusively prove the existence of past or present racial discrimination to establish a strong basis in evidence for concluding that remedial action is necessary. 615 F.3d 233 at 241, *citing Concrete Works*, 321 F.3d at 958. "Instead, a state may meet its burden by relying on "a significant statistical disparity" between the availability of qualified, willing, and able minority subcontractors and the utilization of such subcontractors by the governmental entity or its

prime contractors. *Id*. at 241, *citing Croson*, 488 U.S. at 509 (plurality opinion). The Court stated that we "further require that such evidence be 'corroborated by significant anecdotal evidence of racial discrimination.'" *Id*. at 241, *quoting Maryland Troopers Association, Inc. v. Evans*, 993 F.2d 1072, 1077 (4th Cir. 1993).

The Court pointed out that those challenging race-based remedial measures must "introduce credible, particularized evidence to rebut" the state's showing of a strong basis in evidence for the necessity for remedial action. *Id*. at 241-242, *citing Concrete Works*, 321 F.3d at 959. Challengers may offer a neutral explanation for the state's evidence, present contrasting statistical data, or demonstrate that the evidence is flawed, insignificant, or not actionable. *Id*. at 242 (citations omitted). However, the Court stated "that mere speculation that the state's evidence is insufficient or methodologically flawed does not suffice to rebut a state's showing. *Id*. at 242, *citing Concrete Works*, 321 F.3d at 991.

The Court held that to satisfy strict scrutiny, the state's statutory scheme must also be "narrowly tailored" to serve the state's compelling interest in not financing private discrimination with public funds. 615 F.3d 233 at 242, *citing Alexander*, 95 F.3d at 315 (*citing Adarand*, 515 U.S. at 227).

Intermediate scrutiny. The Court held that courts apply "intermediate scrutiny" to statutes that classify on the basis of gender. *Id*. at 242. The Court found that a defender of a statute that classifies on the basis of gender meets this intermediate scrutiny burden "by showing at least that the classification serves important governmental objectives and that the discriminatory means employed are substantially related to the achievement of those objectives." *Id*., *quoting Mississippi University for Women v. Hogan*, 458 U.S. 718, 724 (1982). The Court noted that intermediate scrutiny requires less of a showing than does "the most exacting" strict scrutiny standard of review. *Id*. at 242. The Court found that its "sister circuits" provide guidance in formulating a governing evidentiary standard for intermediate scrutiny. These courts agree that such a measure "can rest safely on something less than the 'strong basis in evidence' required to bear the weight of a race- or ethnicity-conscious program." Id. at 242, *quoting Engineering Contractors*, 122 F.3d at 909 (other citations omitted).

In defining what constitutes "something less" than a 'strong basis in evidence,' the courts, … also agree that the party defending the statute must 'present [ ] sufficient probative evidence in support of its stated rationale for enacting a gender preference, *i.e.*,…the evidence [must be] sufficient to show that the preference rests on evidence-informed analysis rather than on stereotypical generalizations." 615 F.3d 233 at 242 *quoting Engineering Contractors*, 122 F.3d at 910 and *Concrete Works*, 321 F.3d at 959. The gender-based measures must be based on "reasoned analysis rather than on the mechanical application of traditional, often inaccurate, assumptions." *Id*. at 242 *quoting Hogan*, 458 U.S. at 726.

Plaintiff's burden. The Court found that when a plaintiff alleges that a statute violates the Equal Protection Clause as applied and on its face, the plaintiff bears a heavy burden. In its facial challenge, the Court held that a plaintiff "has a very heavy burden to carry, and must show that [a statutory scheme] cannot operate constitutionally under any circumstance." Id. at 243, quoting West Virginia v. U.S. Department of Health & Human Services, 289 F.3d 281, 292 (4th Cir. 2002).

Statistical evidence. The Court examined the State's statistical evidence of discrimination in public-sector subcontracting, including its disparity evidence and regression analysis. The Court noted that the statistical analysis analyzed the difference or disparity between the amount of subcontracting dollars minority- and women-owned businesses actually won in a market and the amount of subcontracting dollars they would be expected to win given their presence in that market. 615 F.3d

233 at 243. The Court found that the study grounded its analysis in the "disparity index," which measures the participation of a given racial, ethnic, or gender group engaged in subcontracting. Id. In calculating a disparity index, the study divided the percentage of total subcontracting dollars that a particular group won by the percent that group represents in the available labor pool, and multiplied the result by 100. Id. The closer the resulting index is to 100, the greater that group's participation. *Id*.

The Court held that after *Croson*, a number of our sister circuits have recognized the utility of the disparity index in determining statistical disparities in the utilization of minority- and women-owned businesses. *Id*. at 243-244 (Citations to multiple federal circuit court decisions omitted.) The Court also found that generally "courts consider a disparity index lower than 80 as an indication of discrimination." *Id*. at 244. Accordingly, the study considered only a disparity index lower than 80 as warranting further investigation. *Id*.

The Court pointed out that after calculating the disparity index for each relevant racial or gender group, the consultant tested for the statistical significance of the results by conducting standard deviation analysis through the use of t-tests. The Court noted that standard deviation analysis "describes the probability that the measured disparity is the result of mere chance." 615 F.3d 233 at 244, *quoting Eng'g Contractors*, 122 F.3d at 914. The consultant considered the finding of two standard deviations to demonstrate "with 95 percent certainty that disparity, as represented by either overutilization or underutilization, is actually present." *Id*., *citing Eng'g Contractors*, 122 F.3d at 914.

The study analyzed the participation of minority and women subcontractors in construction contracts awarded and managed from the central NCDOT office in Raleigh, North Carolina. 615 F.3d 233 at 244. To determine utilization of minority and women subcontractors, the consultant developed a master list of contracts mainly from State-maintained electronic databases and hard copy files; then selected from that list a statistically valid sample of contracts, and calculated the percentage of subcontracting dollars awarded to minority- and women-owned businesses during the 5-year period ending in June 2003. (The study was published in 2004). *Id*. at 244.

The Court found that the use of data for centrally-awarded contracts was sufficient for its analysis. It was noted that data from construction contracts awarded and managed from the NCDOT divisions across the state and from preconstruction contracts, which involve work from engineering firms and architectural firms on the design of highways, was incomplete and not accurate. 615 F.3d 233 at 244, n.6. These data were not relied upon in forming the opinions relating to the study. *Id*. at 244, n. 6.

To estimate availability, which the Court defined as the percentage of a particular group in the relevant market area, the consultant created a vendor list comprising: (1) subcontractors approved by the department to perform subcontract work on state-funded projects, (2) subcontractors that performed such work during the study period, and (3) contractors qualified to perform prime construction work on state-funded contracts. 615 F.3d 233 at 244. The Court noted that prime construction work on state-funded contracts was included based on the testimony by the consultant that prime contractors are qualified to perform subcontracting work and often do perform such work. *Id*. at 245. The Court also noted that the consultant submitted its master list to the NCDOT for verification. *Id*. at 245.

Based on the utilization and availability figures, the study prepared the disparity analysis comparing the utilization based on the percentage of subcontracting dollars over the five year period,

determining the availability in numbers of firms and their percentage of the labor pool, a disparity index which is the percentage of utilization in dollars divided by the percentage of availability multiplied by 100, and a T Value. 615 F.3d 233 at 245.

The Court concluded that the figures demonstrated prime contractors underutilized all of the minority subcontractor classifications on state-funded construction contracts during the study period. 615 F.3d 233 245. The disparity index for each group was less than 80 and, thus, the Court found warranted further investigation. *Id*. The t-test results, however, demonstrated marked underutilization only of African American and Native American subcontractors. *Id*. For African Americans the t-value fell outside of two standard deviations from the mean and, therefore, was statistically significant at a 95 percent confidence level. *Id.* The Court found there was at least a 95 percent probability that prime contractors' underutilization of African American subcontractors was *not* the result of mere chance. *Id*.

For Native American subcontractors, the t-value of 1.41 was significant at a confidence level of approximately 85 percent. 615 F.3d 233 at 245. The t-values for Hispanic American and Asian American subcontractors, demonstrated significance at a confidence level of approximately 60 percent. The disparity index for women subcontractors found that they were overutilized during the study period. The overutilization was statistically significant at a 95 percent confidence level. *Id*.

To corroborate the disparity study, the consultant conducted a regression analysis studying the influence of certain company and business characteristics – with a particular focus on owner race and gender – on a firm's gross revenues. 615 F.3d 233 at 246. The consultant obtained the data from a telephone survey of firms that conducted or attempted to conduct business with the NCDOT. The survey pool consisted of a random sample of such firms. *Id.*

The consultant used the firms' gross revenues as the dependent variable in the regression analysis to test the effect of other variables, including company age and number of full-time employees, and the owners' years of experience, level of education, race, ethnicity, and gender. 615 F.3d 233 at 246. The analysis revealed that minority and women ownership universally had a negative effect on revenue, and African American ownership of a firm had the largest negative effect on that firm's gross revenue of all the independent variables included in the regression model. *Id*. These findings led to the conclusion that for African Americans the disparity in firm revenue was not due to capacity-related or managerial characteristics alone. *Id*.

The Court rejected the arguments by the plaintiffs attacking the availability estimates. The Court rejected the plaintiff's expert, Dr. George LaNoue, who testified that bidder data – reflecting the number of subcontractors that actually bid on Department subcontracts – estimates availability better than "vendor data." 615 F.3d 233 at 246. Dr. LaNoue conceded, however, that the State does not compile bidder data and that bidder data actually reflects skewed availability in the context of a goals program that urges prime contractors to solicit bids from minority and women subcontractors. *Id*. The Court found that the plaintiff's expert did not demonstrate that the vendor data used in the study was unreliable, or that the bidder data would have yielded less support for the conclusions reached. In sum, the Court held that the plaintiffs challenge to the availability estimate failed because it could not demonstrate that the 2004 study's availability estimate was inadequate. *Id*. at 246. The Court cited *Concrete Works*, 321 F.3d at 991 for the proposition that a challenger cannot meet its burden of proof through conjecture and unsupported criticisms of the state's evidence," and that the

plaintiff Rowe presented no viable alternative for determining availability. *Id.* at 246-247, *citing Concrete Works*, 321 F.3d 991 and *Sherbrooke Turf, Inc. v. Minn. Department of Transportation*, 345 F.3d 964, 973 (8th Cir. 2003).

The Court also rejected the plaintiff's argument that minority subcontractors participated on state-funded projects at a level consistent with their availability in the relevant labor pool, based on the state's response that evidence as to the *number* of minority subcontractors working with state-funded projects does not effectively rebut the evidence of discrimination in terms of subcontracting *dollars*. 615 F.3d 233 at 247. The State pointed to evidence indicating that prime contractors used minority businesses for low-value work in order to comply with the goals, and that African American ownership had a significant negative impact on firm revenue unrelated to firm capacity or experience. *Id*. The Court concluded plaintiff did not offer any contrary evidence. *Id*.

The Court found that the State bolstered its position by presenting evidence that minority subcontractors have the capacity to perform higher-value work. 615 F.3d 233 at 247. The study concluded, based on a sample of subcontracts and reports of annual firm revenue, that exclusion of minority subcontractors from contracts under $500,000 was not a function of capacity. *Id.* at 247. Further, the State showed that over 90 percent of the NCDOT's subcontracts were valued at $500,000 or less, and that capacity constraints do not operate with the same force on subcontracts as they may on prime contracts because subcontracts tend to be relatively small. *Id*. at 247. The Court pointed out that the Court in *Rothe II*, 545 F.3d at 1042-45, faulted disparity analyses of total construction dollars, including prime contracts, for failing to account for the relative capacity of firms in that case. *Id*. at 247.

The Court pointed out that in addition to the statistical evidence, the State also presented evidence demonstrating that from 1991 to 1993, during the Program's suspension, prime contractors awarded substantially fewer subcontracting dollars to minority and women subcontractors on state-funded projects. The Court rejected the plaintiff's argument that evidence of a decline in utilization does not raise an inference of discrimination. 615 F.3d 233 at 247-248. The Court held that the very significant decline in utilization of minority and women-subcontractors – nearly 38 percent – "surely provides a basis for a fact finder to infer that discrimination played some role in prime contractors' reduced utilization of these groups during the suspension." *Id.* at 248, *citing Adarand v. Slater*, 228 F.3d at 1174 (finding that evidence of declining minority utilization after a program has been discontinued "strongly supports the government's claim that there are significant barriers to minority competition in the public subcontracting market, raising the specter of racial discrimination.") The Court found such an inference is particularly compelling for minority-owned businesses because, even during the study period, prime contractors continue to underutilize them on state-funded road projects. *Id.* at 248.

Anecdotal evidence. The State additionally relied on three sources of anecdotal evidence contained in the study: a telephone survey, personal interviews, and focus groups. The Court found the anecdotal evidence showed an informal "good old boy" network of white contractors that discriminated against minority subcontractors. 615 F.3d 233 at 248. The Court noted that three-quarters of African American respondents to the telephone survey agreed that an informal network of prime and subcontractors existed in the State, as did the majority of other minorities, that more than half of African American respondents believed the network excluded their companies from bidding or awarding a contract as did many of the other minorities. Id. at 248. The Court found that

nearly half of nonminority male respondents corroborated the existence of an informal network, however, only 17 percent of them believed that the network excluded their companies from bidding or winning contracts. *Id.*

Anecdotal evidence also showed a large majority of African American respondents reported that double standards in qualifications and performance made it more difficult for them to win bids and contracts, that prime contractors view minority firms as being less competent than nonminority firms, and that nonminority firms change their bids when not required to hire minority firms. 615 F.3d 233 at 248. In addition, the anecdotal evidence showed African American and Native American respondents believed that prime contractors sometimes dropped minority subcontractors after winning contracts. *Id.* at 248. The Court found that interview and focus-group responses echoed and underscored these reports. *Id.*

The anecdotal evidence indicated that prime contractors already know who they will use on the contract before they solicit bids: that the "good old boy network" affects business because prime contractors just pick up the phone and call their buddies, which excludes others from that market completely; that prime contractors prefer to use other less qualified minority-owned firms to avoid subcontracting with African American-owned firms; and that prime contractors use their preferred subcontractor regardless of the bid price. 615 F.3d 233 at 248-249. Several minority subcontractors reported that prime contractors do not treat minority firms fairly, pointing to instances in which prime contractors solicited quotes the day before bids were due, did not respond to bids from minority subcontractors, refused to negotiate prices with them, or gave minority subcontractors insufficient information regarding the project. *Id.* at 249.

The Court rejected the plaintiffs' contention that the anecdotal data was flawed because the study did not verify the anecdotal data and that the consultant oversampled minority subcontractors in collecting the data. The Court stated that the plaintiffs offered no rationale as to why a fact finder could not rely on the State's "unverified" anecdotal data, and pointed out that a fact finder could very well conclude that anecdotal evidence need not- and indeed cannot-be verified because it "is nothing more than a witness' narrative of an incident told from the witness' perspective and including the witness' perceptions." 615 F.3d 233 at 249, *quoting Concrete Works*, 321 F.3d at 989.

The Court held that anecdotal evidence simply supplements statistical evidence of discrimination. *Id.* at 249. The Court rejected plaintiffs' argument that the study oversampled representatives from minority groups, and found that surveying more non-minority men would not have advanced the inquiry. *Id.* at 249. It was noted that the samples of the minority groups were randomly selected. *Id.* The Court found the state had compelling anecdotal evidence that minority subcontractors face race-based obstacles to successful bidding. *Id.* at 249.

Strong basis in evidence that the minority participation goals were necessary to remedy discrimination. The Court held that the State presented a "strong basis in evidence" for its conclusion that minority participation goals were necessary to remedy discrimination against African American and Native American subcontractors." 615 F.3d 233 at 250. Therefore, the Court held that the State satisfied the strict scrutiny test. The Court found that the State's data demonstrated that prime contractors grossly underutilized African American and Native American subcontractors in public sector subcontracting during the study. Id. at 250. The Court noted that these findings have particular resonance because since 1983, North Carolina has encouraged minority participation in

state-funded highway projects, and yet African American and Native American subcontractors continue to be underutilized on such projects. *Id.* at 250.

In addition, the Court found the disparity index in the study demonstrated statistically significant underutilization of African American subcontractors at a 95 percent confidence level, and of Native American subcontractors at a confidence level of approximately 85 percent. 615 F.3d 233 at 250. The Court concluded the State bolstered the disparity evidence with regression analysis demonstrating that African American ownership correlated with a significant, negative impact on firm revenue, and demonstrated there was a dramatic decline in the utilization of minority subcontractors during the suspension of the program in the 1990s. *Id.*

Thus, the Court held the State's evidence showing a gross statistical disparity between the availability of qualified American and Native American subcontractors and the amount of subcontracting dollars they win on public sector contracts established the necessary statistical foundation for upholding the minority participation goals with respect to these groups. 615 F.3d 233 at 250. The Court then found that the State's anecdotal evidence of discrimination against these two groups sufficiently supplemented the State's statistical showing. *Id.* The survey in the study exposed an informal, racially exclusive network that systemically disadvantaged minority subcontractors. *Id.* at 251. The Court held that the State could conclude with good reason that such networks exert a chronic and pernicious influence on the marketplace that calls for remedial action. *Id.* The Court found the anecdotal evidence indicated that racial discrimination is a critical factor underlying the gross statistical disparities presented in the study. *Id.* at 251. Thus, the Court held that the State presented substantial statistical evidence of gross disparity, corroborated by "disturbing" anecdotal evidence.

The Court held in circumstances like these, the Supreme Court has made it abundantly clear a state can remedy a public contracting system that withholds opportunities from minority groups because of their race. 615 F.3d 233 at 251-252.

Narrowly tailored. The Court then addressed whether the North Carolina statutory scheme was narrowly tailored to achieve the State's compelling interest in remedying discrimination against African American and Native American subcontractors in public-sector subcontracting. The following factors were considered in determining whether the statutory scheme was narrowly tailored.

Neutral measures. The Court held that narrowly tailoring requires "serious, good faith consideration of workable race-neutral alternatives," but a state need not "exhaust [ ] … every conceivable race-neutral alternative." 615 F.3d 233 at 252 quoting Grutter v. Bollinger, 539 U.S. 306, 339 (2003). The Court found that the study details numerous alternative race-neutral measures aimed at enhancing the development and competitiveness of small or otherwise disadvantaged businesses in North Carolina. Id. at 252. The Court pointed out various race-neutral alternatives and measures, including a Small Business Enterprise Program; waiving institutional barriers of bonding and licensing requirements on certain small business contracts of $500,000 or less; and the Department contracts for support services to assist disadvantaged business enterprises with bookkeeping and accounting, taxes, marketing, bidding, negotiation, and other aspects of entrepreneurial development. *Id.* at 252.

The Court found that plaintiff identified no viable race-neutral alternatives that North Carolina had failed to consider and adopt. The Court also found that the State had undertaken most of the race-neutral alternatives identified by USDOT in its regulations governing the Federal DBE Program. 615

F.3d 233 at 252, *citing* 49 C.F.R. § 26.51(b). The Court concluded that the State gave serious good faith consideration to race-neutral alternatives prior to adopting the statutory scheme. *Id*.

The Court concluded that despite these race-neutral efforts, the study demonstrated disparities continue to exist in the utilization of African American and Native American subcontractors in state-funded highway construction subcontracting, and that these "persistent disparities indicate the necessity of a race-conscious remedy." 615 F.3d 233 at 252.

Duration. The Court agreed with the district court that the program was narrowly tailored in that it set a specific expiration date and required a new disparity study every five years. 615 F.3d 233 at 253. The Court found that the program's inherent time limit and provisions requiring regular reevaluation ensure it is carefully designed to endure only until the discriminatory impact has been eliminated. Id. at 253, citing Adarand Constructors v. Slater, 228 F.3d at 1179 (quoting United States v. Paradise, 480 U.S. 149, 178 (1987)).

Program's goals related to percentage of minority subcontractors. The Court concluded that the State had demonstrated that the Program's participation goals are related to the percentage of minority subcontractors in the relevant markets in the State. 615 F.3d 233 at 253. The Court found that the NCDOT had taken concrete steps to ensure that these goals accurately reflect the availability of minority-owned businesses on a project-by-project basis. *Id*.

Flexibility. The Court held that the Program was flexible and thus satisfied this indicator of narrow tailoring. 615 F.3d 233 at 253. The Program contemplated a waiver of project-specific goals when prime contractors make good faith efforts to meet those goals, and that the good faith efforts essentially require only that the prime contractor solicit and consider bids from minorities. Id. The State does not require or expect the prime contractor to accept any bid from an unqualified bidder, or any bid that is not the lowest bid. Id. The Court found there was a lenient standard and flexibility of the "good faith" requirement, and noted the evidence showed only 13 of 878 good faith submissions failed to demonstrate good faith efforts. *Id*.

Burden on non-MWBE/DBEs. The Court rejected the two arguments presented by plaintiff that the Program created onerous solicitation and follow-up requirements, finding that there was no need for additional employees dedicated to the task of running the solicitation program to obtain MBE/WBEs, and that there was no evidence to support the claim that plaintiff was required to subcontract millions of dollars of work that it could perform itself for less money. 615 F.3d 233 at 254. The State offered evidence from the study that prime contractors need not submit subcontract work that they can self-perform. *Id*.

Overinclusive. The Court found by its own terms the statutory scheme is not overinclusive because it limited relief to only those racial or ethnicity classifications that have been subjected to discrimination in the relevant marketplace and that had been adversely affected in their ability to obtain contracts with the Department. 615 F.3d 233 at 254. The Court concluded that in tailoring the remedy this way, the legislature did not randomly include racial groups that may never have suffered from discrimination in the construction industry, but rather, contemplated participation goals only for those groups shown to have suffered discrimination. *Id*.

In sum, the Court held that the statutory scheme is narrowly tailored to achieve the State's compelling interest in remedying discrimination in public-sector subcontracting against African American and Native American subcontractors. *Id*. at 254.

Women-owned businesses overutilized. The study's public-sector disparity analysis demonstrated that women-owned businesses won far more than their expected share of subcontracting dollars during the study period. 615 F.3d 233 at 254. In other words, the Court concluded that prime contractors substantially overutilized women subcontractors on public road construction projects. Id. The Court found the public-sector evidence did not evince the "exceedingly persuasive justification" the Supreme Court requires. *Id.* at 255.

The Court noted that the State relied heavily on private-sector data from the study attempting to demonstrate that prime contractors significantly underutilized women subcontractors in the general construction industry statewide and in the Charlotte, North Carolina area. 615 F.3d 233 at 255. However, because the study did not provide a t-test analysis on the private-sector disparity figures to calculate statistical significance, the Court could not determine whether this private underutilization was "the result of mere chance." *Id.* at 255. The Court found troubling the "evidentiary gap" that there was no evidence indicating the extent to which women-owned businesses competing on public-sector road projects vied for private-sector subcontracts in the general construction industry. *Id.* at 255. The Court also found that the State did not present any anecdotal evidence indicating that women subcontractors successfully bidding on State contracts faced private-sector discrimination. *Id.* In addition, the Court found missing any evidence prime contractors that discriminate against women subcontractors in the private sector nevertheless win public-sector contracts. *Id.*

The Court pointed out that it did not suggest that the proponent of a gender-conscious program "must always tie private discrimination to public action." 615 F.3d 233 at 255, n. 11. But, the Court held where, as here, there existed substantial probative evidence of overutilization in the relevant public sector, a state must present something more than generalized private-sector data unsupported by compelling anecdotal evidence to justify a gender-conscious program. *Id.* at 255, n. 11.

Moreover, the Court found the state failed to establish the amount of overlap between general construction and road construction subcontracting. 615 F.3d 233 at 256. The Court said that the dearth of evidence as to the correlation between public road construction subcontracting and private general construction subcontracting severely limits the private data's probative value in this case. *Id.*

Thus, the Court held that the State could not overcome the strong evidence of overutilization in the public sector in terms of gender participation goals, and that the proffered private-sector data failed to establish discrimination in the particular field in question. 615 F.3d 233 at 256. Further, the anecdotal evidence, the Court concluded, indicated that most women subcontractors do not experience discrimination. *Id.* Thus, the Court held that the State failed to present sufficient evidence to support the Program's current inclusion of women subcontractors in setting participation goals. *Id.*

Holding. The Court held that the state legislature had crafted legislation that withstood the constitutional scrutiny. 615 F.3d 233 at 257. The Court concluded that in light of the statutory scheme's flexibility and responsiveness to the realities of the marketplace, and given the State's strong evidence of discrimination again African American and Native American subcontractors in public-sector subcontracting, the State's application of the statute to these groups is constitutional. *Id.* at 257. However, the Court also held that because the State failed to justify its application of the statutory scheme to women, Asian American, and Hispanic American subcontractors, the Court found those applications were not constitutional.

Therefore, the Court affirmed the judgment of the district court with regard to the facial validity of the statute, and with regard to its application to African American and Native American subcontractors. 615 F.3d 233 at 258. The Court reversed the district court's judgment insofar as it upheld the constitutionality of the state legislature as applied to women, Asian American and Hispanic American subcontractors. *Id*. The Court thus remanded the case to the district court to fashion an appropriate remedy consistent with the opinion. *Id*.

Concurring opinions. It should be pointed out that there were two concurring opinions by the three Judge panel: one judge concurred in the judgment, and the other judge concurred fully in the majority opinion and the judgment.

2. Jana-Rock Construction, Inc. v. New York State Dept. of Economic Development, 438 F.3d 195 (2d Cir. 2006)

This recent case is instructive in connection with the determination of the groups that may be included in a MBE/WBE-type program, and the standard of analysis utilized to evaluate a local government's non-inclusion of certain groups. In this case, the Second Circuit Court of Appeals held racial classifications that are challenged as "under-inclusive" (*i.e.*, those that exclude persons from a particular racial classification) are subject to a "rational basis" review, not strict scrutiny.

Plaintiff Luiere, a 70 percent shareholder of Jana-Rock Construction, Inc. ("Jana Rock") and the "son of a Spanish mother whose parents were born in Spain," challenged the constitutionality of the State of New York's definition of "Hispanic" under its local minority-owned business program. 438 F.3d 195, 199-200 (2d Cir. 2006). Under the USDOT regulations, 49 C.F.R. § 26.5, "Hispanic Americans" are defined as "persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race." *Id*. at 201. Upon proper application, Jana-Rock was certified by the New York Department of Transportation as a Disadvantaged Business Enterprise ("DBE") under the federal regulations. *Id*.

However, unlike the federal regulations, the State of New York's local minority-owned business program included in its definition of minorities "Hispanic persons of Mexican, Puerto Rican, Dominican, Cuban, Central or South American of either Indian or Hispanic origin, regardless of race." The definition did not include all persons from, or descendants of persons from, Spain or Portugal. *Id*. Accordingly, Jana-Rock was denied MBE certification under the local program; Jana-Rock filed suit alleging a violation of the Equal Protection Clause. *Id*. at 202-03. The plaintiff conceded that the overall minority-owned business program satisfied the requisite strict scrutiny, but argued that the definition of "Hispanic" was fatally under-inclusive. *Id*. at 205.

The Second Circuit found that the narrow-tailoring prong of the strict scrutiny analysis "allows New York to identify which groups it is prepared to prove are in need of affirmative action without demonstrating that no other groups merit consideration for the program." *Id*. at 206. The court found that evaluating under-inclusiveness as an element of the strict scrutiny analysis was at odds with the United States Supreme Court decision in *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469 (1989) which required that affirmative action programs be no broader than necessary. *Id*. at 207-08. The court similarly rejected the argument that the state should mirror the federal definition of "Hispanic," finding that Congress has more leeway than the states to make broader classifications because Congress is making such classifications on the national level. *Id*. at 209.

The court opined — without deciding — that it may be impermissible for New York to simply adopt the "federal USDOT definition of Hispanic without at least making an independent assessment of discrimination against Hispanics of Spanish Origin in New York." *Id.* Additionally, finding that the plaintiff failed to point to any discriminatory purpose by New York in failing to include persons of Spanish or Portuguese descent, the court determined that the rational basis analysis was appropriate. *Id.* at 213.

The court held that the plaintiff failed the rational basis test for three reasons: (1) because it was not irrational nor did it display animus to exclude persons of Spanish and Portuguese descent from the definition of Hispanic; (2) because the fact the plaintiff could demonstrate evidence of discrimination that he personally had suffered did not render New York's decision to exclude persons of Spanish and Portuguese descent irrational; and (3) because the fact New York may have relied on Census data including a small percentage of Hispanics of Spanish descent did not mean that it was irrational to conclude that Hispanics of Latin American origin were in greater need of remedial legislation. *Id.* at 213-14. Thus, the Second Circuit affirmed the conclusion that New York had a rational basis for its definition to not include persons of Spanish and Portuguese descent, and thus affirmed the district court decision upholding the constitutionality of the challenged definition.

3. Rapid Test Prods., Inc. v. Durham Sch. Servs., Inc., 460 F.3d 859 (7th Cir. 2006)

In *Rapid Test Products, Inc. v. Durham School Services Inc.*, the Seventh Circuit Court of Appeals held that 42 U.S.C. § 1981 (the federal anti-discrimination law) did not provide an "entitlement" in disadvantaged businesses to receive contracts subject to set aside programs; rather, § 1981 provided a remedy for individuals who were subject to discrimination.

Durham School Services, Inc. ("Durham"), a prime contractor, submitted a bid for and won a contract with an Illinois school district. The contract was subject to a set-aside program reserving some of the subcontracts for disadvantaged business enterprises (a race- and gender-conscious program). Prior to bidding, Durham negotiated with Rapid Test Products, Inc. ("Rapid Test"), made one payment to Rapid Test as an advance, and included Rapid Test in its final bid. Rapid Test believed it had received the subcontract. However, after the school district awarded the contract to Durham, Durham gave the subcontract to one of Rapid Test's competitor's, a business owned by an Asian male. The school district agreed to the substitution. Rapid Test brought suit against Durham under 42 U.S.C. § 1981 alleging that Durham discriminated against it because Rapid's owner was a black woman.

The district court granted summary judgment in favor of Durham holding the parties' dealing had been too indefinite to create a contract. On appeal, the Seventh Circuit Court of Appeals stated that "§ 1981 establishes a rule against discrimination in contracting and does not create any entitlement to be the beneficiary of a contract reserved for firms owned by specified racial, sexual, ethnic, or religious groups. Arguments that a particular set-aside program is a lawful remedy for prior discrimination may or may not prevail if a potential subcontractor claims to have been excluded, but it is to victims of discrimination rather than frustrated beneficiaries that § 1981 assigns the right to litigate."

The court held that if race or sex discrimination is the reason why Durham did not award the subcontract to Rapid Test, then § 1981 provides relief. Having failed to address this issue, the

Seventh Circuit Court of Appeals remanded the case to the district court to determine whether Rapid Test had evidence to back up its claim that race and sex discrimination, rather than a nondiscriminatory reason such as inability to perform the services Durham wanted, accounted for Durham's decision to hire Rapid Test's competitor.

4. Virdi v. DeKalb County School District, 135 Fed. Appx. 262, 2005 WL 138942 (11th Cir. 2005) (unpublished opinion)

Although it is an unpublished opinion, *Virdi v. DeKalb County School District* is a recent Eleventh Circuit decision reviewing a challenge to a local government MBE/WBE-type program, which is instructive to the disparity study. In *Virdi*, the Eleventh Circuit struck down a MBE/WBE goal program that the court held contained racial classifications. The court based its ruling primarily on the failure of the DeKalb County School District (the "District") to seriously consider and implement a race-neutral program and to the infinite duration of the program.

Plaintiff Virdi, an Asian American architect of Indian descent, filed suit against the District, members of the DeKalb County Board of Education (both individually and in their official capacities) (the "Board") and the Superintendent (both individually and in his official capacity) (collectively "defendants") pursuant to 42 U.S.C. §§ 1981 and 1983 and the Fourteenth Amendment alleging that they discriminated against him on the basis of race when awarding architectural contracts. 135 Fed. Appx. 262, 264 (11th Cir. 2005). Virdi also alleged the school district's Minority Vendor Involvement Program was facially unconstitutional. *Id*.

The district court initially granted the defendants' Motions for Summary Judgment on all of Virdi's claims and the Eleventh Circuit Court of Appeals reversed in part, vacated in part, and remanded. *Id*. On remand, the district court granted the defendants' Motion for Partial Summary Judgment on the facial challenge, and then granted the defendants' motion for a judgment as a matter of law on the remaining claims at the close of Virdi's case. *Id*.

In 1989, the Board appointed the Tillman Committee (the "Committee") to study participation of female- and minority-owned businesses with the District. *Id*. The Committee met with various District departments and a number of minority contractors who claimed they had unsuccessfully attempted to solicit business with the District. *Id*. Based upon a "general feeling" that minorities were under-represented, the Committee issued the Tillman Report (the "Report") stating "the Committee's impression that '[m]inorities ha[d] not participated in school board purchases and contracting in a ratio reflecting the minority make-up of the community." *Id*. The Report contained no specific evidence of past discrimination nor any factual findings of discrimination. *Id*.

The Report recommended that the District: (1) Advertise bids and purchasing opportunities in newspapers targeting minorities, (2) conduct periodic seminars to educate minorities on doing business with the District, (3) notify organizations representing minority firms regarding bidding and purchasing opportunities, and (4) publish a "how to" booklet to be made available to any business interested in doing business with the District.

Id. The Report also recommended that the District adopt annual, aspirational participation goals for women- and minority-owned businesses. *Id*. The Report contained statements indicating the

selection process should remain neutral and recommended that the Board adopt a non-discrimination statement. *Id*.

In 1991, the Board adopted the Report and implemented several of the recommendations, including advertising in the AJC, conducting seminars, and publishing the "how to" booklet. *Id*. The Board also implemented the Minority Vendor Involvement Program (the "MVP") which adopted the participation goals set forth in the Report. *Id*. at 265.

The Board delegated the responsibility of selecting architects to the Superintendent. *Id*. Virdi sent a letter to the District in October 1991 expressing interest in obtaining architectural contracts. *Id*. Virdi sent the letter to the District Manager and sent follow-up literature; he re-contacted the District Manager in 1992 and 1993. *Id*. In August 1994, Virdi sent a letter and a qualifications package to a project manager employed by Heery International. *Id*. In a follow-up conversation, the project manager allegedly told Virdi that his firm was not selected not based upon his qualifications, but because the "District was only looking for 'black-owned firms.'" *Id*. Virdi sent a letter to the project manager requesting confirmation of his statement in writing and the project manager forwarded the letter to the District. *Id*.

After a series of meetings with District officials, in 1997, Virdi met with the newly hired Executive Director. *Id*. at 266. Upon request of the Executive Director, Virdi re-submitted his qualifications but was informed that he would be considered only for future projects (Phase III SPLOST projects). *Id*. Virdi then filed suit before any Phase III SPLOST projects were awarded. *Id*.

The Eleventh Circuit considered whether the MVP was facially unconstitutional and whether the defendants intentionally discriminated against Virdi on the basis of his race. The court held that strict scrutiny applies to all racial classifications and is not limited to merely set-asides or mandatory quotas; therefore, the MVP was subject to strict scrutiny because it contained racial classifications. *Id*. at 267. The court first questioned whether the identified government interest was compelling. *Id*. at 268. However, the court declined to reach that issue because it found the race-based participation goals were not narrowly tailored to achieving the identified government interest. *Id*.

The court held the MVP was not narrowly tailored for two reasons. *Id*. First, because no evidence existed that the District considered race-neutral alternatives to "avoid unwitting discrimination." The court found that "[w]hile narrow tailoring does not require exhaustion of every conceivable race-neutral alternative, it does require serious, good faith consideration of whether such alternatives could serve the governmental interest at stake." *Id*., *citing Grutter v. Bollinger*, 539 U.S. 306, 339 (2003), and *Richmond v. J.A. Croson Co.*, 488 U.S. 469, 509-10 (1989). The court found that District could have engaged in any number of equally effective race-neutral alternatives, including using its outreach procedure and tracking the participation and success of minority-owned business as compared to non-minority-owned businesses. *Id*. at 268, n.8. Accordingly, the court held the MVP was not narrowly tailored. *Id*. at 268.

Second, the court held that the unlimited duration of the MVP's racial goals negated a finding of narrow tailoring. *Id*. "[R]ace conscious … policies must be limited in time." *Id*., *citing Grutter*, 539 U.S. at 342, and *Walker v. City of Mesquite, TX*, 169 F.3d 973, 982 (5th Cir. 1999). The court held that because the government interest could have been achieved utilizing race-neutral measures, and

because the racial goals were not temporally limited, the MVP could not withstand strict scrutiny and was unconstitutional on its face. *Id*. at 268.

With respect to Virdi's claims of intentional discrimination, the court held that although the MVP was facially unconstitutional, no evidence existed that the MVP or its unconstitutionality caused Virdi to lose a contract that he would have otherwise received. *Id*. Thus, because Virdi failed to establish a causal connection between the unconstitutional aspect of the MVP and his own injuries, the court affirmed the district court's grant of judgment on that issue. *Id.* at 269. Similarly, the court found that Virdi presented insufficient evidence to sustain his claims against the Superintendent for intentional discrimination. *Id.*

The court reversed the district court's order pertaining to the facial constitutionality of the MVP's racial goals, and affirmed the district court's order granting defendants' motion on the issue of intentional discrimination against Virdi. *Id*. at 270.

5. Concrete Works of Colorado, Inc. v. City and County of Denver, 321 F.3d 950 (10th Cir. 2003), cert. denied, 540 U.S. 1027, 124 S. Ct. 556 (2003) (Scalia, Justice with whom the Chief Justice Rehnquist, joined, dissenting from the denial of certiorari)

This case is instructive to the disparity study because it is one of the only recent decisions to uphold the validity of a local government MBE/WBE program. It is significant to note that the Tenth Circuit did not apply the narrowly tailored test and thus did not rule on an application of the narrowly tailored test, instead finding that the plaintiff had waived that challenge in one of the earlier decisions in the case. This case also is one of the only cases to have found private sector marketplace discrimination as a basis to uphold an MBE/WBE-type program.

In *Concrete Works* the United States Court of Appeals for the Tenth Circuit held that the City and County of Denver had a compelling interest in limiting race discrimination in the construction industry, that the City had an important governmental interest in remedying gender discrimination in the construction industry, and found that the City and County of Denver had established a compelling governmental interest to have a race- and gender-based program. In *Concrete Works*, the Court of Appeals did not address the issue of whether the MWBE Ordinance was narrowly tailored because it held the district court was barred under the law of the case doctrine from considering that issue since it was not raised on appeal by the plaintiff construction companies after they had lost that issue on summary judgment in an earlier decision. Therefore, the Court of Appeals did not reach a decision as to narrowly tailoring or consider that issue in the case.

Case history. Plaintiff, Concrete Works of Colorado, Inc. ("CWC") challenged the constitutionality of an "affirmative action" ordinance enacted by the City and County of Denver (hereinafter the "City" or "Denver"). 321 F.3d 950, 954 (10th Cir. 2003). The ordinance established participation goals for racial minorities and women on certain City construction and professional design projects. *Id.*

The City enacted an Ordinance No. 513 ("1990 Ordinance") containing annual goals for MBE/WBE utilization on all competitively bid projects. *Id*. at 956. A prime contractor could also satisfy the 1990 Ordinance requirements by using "good faith efforts." *Id.* In 1996, the City replaced the 1990 Ordinance with Ordinance No. 304 (the "1996 Ordinance"). The district court stated that the 1996

Ordinance differed from the 1990 Ordinance by expanding the definition of covered contracts to include some privately financed contracts on City-owned land; added updated information and findings to the statement of factual support for continuing the program; refined the requirements for MBE/WBE certification and graduation; mandated the use of MBEs and WBEs on change orders; and expanded sanctions for improper behavior by MBEs, WBEs or majority-owned contractors in failing to perform the affirmative action commitments made on City projects. *Id.* at 956-57.

The 1996 Ordinance was amended in 1998 by Ordinance No. 948 (the "1998 Ordinance"). The 1998 Ordinance reduced annual percentage goals and prohibited an MBE or a WBE, acting as a bidder, from counting self-performed work toward project goals. *Id.* at 957.

CWC filed suit challenging the constitutionality of the 1990 Ordinance. *Id.* The district court conducted a bench trial on the constitutionality of the three ordinances. *Id.* The district court ruled in favor of CWC and concluded that the ordinances violated the Fourteenth Amendment. *Id.* The City then appealed to the Tenth Circuit Court of Appeals. *Id.* The Court of Appeals reversed and remanded. *Id.* at 954.

The Court of Appeals applied strict scrutiny to race-based measures and intermediate scrutiny to the gender-based measures. *Id.* at 957-58, 959. The Court of Appeals also cited *Richmond v. J.A. Croson Co.*, for the proposition that a governmental entity "can use its spending powers to remedy private discrimination, if it identifies that discrimination with the particularity required by the Fourteenth Amendment." 488 U.S. 469, 492 (1989) (plurality opinion). Because "an effort to alleviate the effects of *societal* discrimination is not a compelling interest," the Court of Appeals held that Denver could demonstrate that its interest is compelling only if it (1) identified the past or present discrimination "with some specificity," and (2) demonstrated that a "strong basis in evidence" supports its conclusion that remedial action is necessary. *Id.* at 958, *quoting Shaw v. Hunt*, 517 U.S. 899, 909-10 (1996).

The court held that Denver could meet its burden without conclusively proving the existence of past or present racial discrimination. *Id.* Rather, Denver could rely on "empirical evidence that demonstrates 'a significant statistical disparity between the number of qualified minority contractors … and the number of such contractors actually engaged by the locality or the locality's prime contractors.'" *Id.*, *quoting Croson*, 488 U.S. at 509 (plurality opinion). Furthermore, the Court of Appeals held that Denver could rely on statistical evidence gathered from the six-county Denver Metropolitan Statistical Area (MSA) and could supplement the statistical evidence with anecdotal evidence of public and private discrimination. *Id.*

The Court of Appeals held that Denver could establish its compelling interest by presenting evidence of its own direct participation in racial discrimination or its passive participation in private discrimination. *Id.* The Court of Appeals held that once Denver met its burden, CWC had to introduce "credible, particularized evidence to rebut [Denver's] initial showing of the existence of a compelling interest, which could consist of a neutral explanation for the statistical disparities." *Id.* (internal citations and quotations omitted). The Court of Appeals held that CWC could also rebut Denver's statistical evidence "by (1) showing that the statistics are flawed; (2) demonstrating that the disparities shown by the statistics are not significant or actionable; or (3) presenting contrasting statistical data." *Id.* (internal citations and quotations omitted). The Court of Appeals held that the

burden of proof at all times remained with CWC to demonstrate the unconstitutionality of the ordinances. *Id*. at 960.

The Court of Appeals held that to meet its burden of demonstrating an important governmental interest per the intermediate scrutiny analysis, Denver must show that the gender-based measures in the ordinances were based on "reasoned analysis rather than through the mechanical application of traditional, often inaccurate, assumptions." *Id*., *quoting Miss. Univ. for Women v. Hogan*, 458 U.S. 718, 726 (1982).

The studies. Denver presented historical, statistical and anecdotal evidence in support of its MBE/WBE programs. Denver commissioned a number of studies to assess its MBE/WBE programs. Id. at 962. The consulting firm hired by Denver utilized disparity indices in part. Id. at 962. The 1990 Study also examined MBE and WBE utilization in the overall Denver MSA construction market, both public and private. *Id*. at 963.

The consulting firm also interviewed representatives of MBEs, WBEs, majority-owned construction firms, and government officials. *Id*. Based on this information, the 1990 Study concluded that, despite Denver's efforts to increase MBE and WBE participation in Denver Public Works projects, some Denver employees and private contractors engaged in conduct designed to circumvent the goals program. *Id*. After reviewing the statistical and anecdotal evidence contained in the 1990 Study, the City Council enacted the 1990 Ordinance. *Id*.

After the Tenth Circuit decided Concrete Works II, Denver commissioned another study (the "1995 Study"). *Id*. at 963. Using 1987 Census Bureau data, the 1995 Study again examined utilization of MBEs and WBEs in the construction and professional design industries within the Denver MSA. *Id*. The 1995 Study concluded that MBEs and WBEs were more likely to be one-person or family-run businesses. The Study concluded that Hispanic-owned firms were less likely to have paid employees than white-owned firms but that Asian/Native American-owned firms were more likely to have paid employees than white- or other minority-owned firms. To determine whether these factors explained overall market disparities, the 1995 Study used the Census data to calculate disparity indices for all firms in the Denver MSA construction industry and separately calculated disparity indices for firms with paid employees and firms with no paid employees. *Id*. at 964.

The Census Bureau information was also used to examine average revenues per employee for Denver MSA construction firms with paid employees. Hispanic-, Asian-, Native American-, and women-owned firms with paid employees all reported lower revenues per employee than majority-owned firms. The 1995 Study also used 1990 Census data to calculate rates of self-employment within the Denver MSA construction industry. The Study concluded that the disparities in the rates of self-employment for blacks, Hispanics, and women persisted even after controlling for education and length of work experience. The 1995 Study controlled for these variables and reported that blacks and Hispanics working in the Denver MSA construction industry were less than half as likely to own their own businesses as were whites of comparable education and experience. *Id*.

In late 1994 and early 1995, a telephone survey of construction firms doing business in the Denver MSA was conducted. *Id*. at 965. Based on information obtained from the survey, the consultant calculated percentage utilization and percentage availability of MBEs and WBEs. Percentage utilization was calculated from revenue information provided by the responding firms. Percentage

availability was calculated based on the number of MBEs and WBEs that responded to the survey question regarding revenues. Using these utilization and availability percentages, the 1995 Study showed disparity indices of 64 for MBEs and 70 for WBEs in the construction industry. In the professional design industry, disparity indices were 67 for MBEs and 69 for WBEs. The 1995 Study concluded that the disparity indices obtained from the telephone survey data were more accurate than those obtained from the 1987 Census data because the data obtained from the telephone survey were more recent, had a narrower focus, and included data on C corporations. Additionally, it was possible to calculate disparity indices for professional design firms from the survey data. *Id*.

In 1997, the City conducted another study to estimate the availability of MBEs and WBEs and to examine, *inter alia,* whether race and gender discrimination limited the participation of MBEs and WBEs in construction projects of the type typically undertaken by the City (the "1997 Study"). *Id*. at 966. The 1997 Study used geographic and specialization information to calculate MBE/WBE availability. Availability was defined as "the ratio of MBE/WBE firms to the total number of firms in the four-digit SIC codes and geographic market area relevant to the City's contracts." *Id*.

The 1997 Study compared MBE/WBE availability and utilization in the Colorado construction industry. *Id*. The statewide market was used because necessary information was unavailable for the Denver MSA. *Id*. at 967. Additionally, data collected in 1987 by the Census Bureau was used because more current data was unavailable. The Study calculated disparity indices for the statewide construction market in Colorado as follows: 41 for African American firms, 40 for Hispanic firms, 14 for Asian and other minorities, and 74 for women-owned firms. *Id*.

The 1997 Study also contained an analysis of whether African Americans, Hispanics, or Asian Americans working in the construction industry are less likely to be self-employed than similarly situated whites. *Id*. Using data from the Public Use Microdata Samples ("PUMS") of the 1990 Census of Population and Housing, the Study used a sample of individuals working in the construction industry. The Study concluded that in both Colorado and the Denver MSA, African Americans, Hispanics, and Native Americans working in the construction industry had lower self-employment rates than whites. Asian Americans had higher self-employment rates than whites.

Using the availability figures calculated earlier in the Study, the Study then compared the actual availability of MBE/WBEs in the Denver MSA with the potential availability of MBE/WBEs if they formed businesses at the same rate as whites with the same characteristics. *Id*. Finally, the Study examined whether self-employed minorities and women in the construction industry have lower earnings than white males with similar characteristics. *Id*. at 968. Using linear regression analysis, the Study compared business owners with similar years of education, of similar age, doing business in the same geographic area, and having other similar demographic characteristics. Even after controlling for several factors, the results showed that self-employed African Americans, Hispanics, Native Americans, and women had lower earnings than white males. *Id*.

The 1997 Study also conducted a mail survey of both MBE/WBEs and non-MBE/WBEs to obtain information on their experiences in the construction industry. Of the MBE/WBEs who responded, 35 percent indicated that they had experienced at least one incident of disparate treatment within the last five years while engaged in business activities. The survey also posed the following question: "How often do prime contractors who use your firm as a subcontractor on public sector projects with [MBE/WBE] goals or requirements … also use your firm on public sector or private sector

projects without [MBE/WBE] goals or requirements?" Fifty-eight percent of minorities and 41 percent of white women who responded to this question indicated they were "seldom or never" used on non-goals projects. *Id.*

MBE/WBEs were also asked whether the following aspects of procurement made it more difficult or impossible to obtain construction contracts: (1) bonding requirements, (2) insurance requirements, (3) large project size, (4) cost of completing proposals, (5) obtaining working capital, (6) length of notification for bid deadlines, (7) prequalification requirements, and (8) previous dealings with an agency. This question was also asked of non-MBE/WBEs in a separate survey. With one exception, MBE/WBEs considered each aspect of procurement more problematic than non-MBE/WBEs. To determine whether a firm's size or experience explained the different responses, a regression analysis was conducted that controlled for age of the firm, number of employees, and level of revenues. The results again showed that with the same, single exception, MBE/WBEs had more difficulties than non-MBE/WBEs with the same characteristics. *Id.* at 968-69.

After the 1997 Study was completed, the City enacted the 1998 Ordinance. The 1998 Ordinance reduced the annual goals to 10 percent for both MBEs and WBEs and eliminated a provision which previously allowed MBE/WBEs to count their own work toward project goals. *Id.* at 969.

The anecdotal evidence included the testimony of the senior vice-president of a large, majority-owned construction firm who stated that when he worked in Denver, he received credible complaints from minority and women-owned construction firms that they were subject to different work rules than majority-owned firms. *Id.* He also testified that he frequently observed graffiti containing racial or gender epithets written on job sites in the Denver metropolitan area. Further, he stated that he believed, based on his personal experiences, that many majority-owned firms refused to hire minority- or women-owned subcontractors because they believed those firms were not competent. *Id.*

Several MBE/WBE witnesses testified that they experienced difficulty prequalifying for private sector projects and projects with the City and other governmental entities in Colorado. One individual testified that her company was required to prequalify for a private sector project while no similar requirement was imposed on majority-owned firms. Several others testified that they attempted to prequalify for projects but their applications were denied even though they met the prequalification requirements. *Id.*

Other MBE/WBEs testified that their bids were rejected even when they were the lowest bidder; that they believed they were paid more slowly than majority-owned firms on both City projects and private sector projects; that they were charged more for supplies and materials; that they were required to do additional work not part of the subcontracting arrangement; and that they found it difficult to join unions and trade associations. *Id.* There was testimony detailing the difficulties MBE/WBEs experienced in obtaining lines of credit. One WBE testified that she was given a false explanation of why her loan was declined; another testified that the lending institution required the co-signature of her husband even though her husband, who also owned a construction firm, was not required to obtain her co-signature; a third testified that the bank required her father to be involved in the lending negotiations. *Id.*

The court also pointed out anecdotal testimony involving recitations of racially- and gender-motivated harassment experienced by MBE/WBEs at work sites. There was testimony that minority and female employees working on construction projects were physically assaulted and fondled, spat upon with chewing tobacco, and pelted with two-inch bolts thrown by males from a height of 80 feet. *Id.* at 969-70.

The legal framework applied by the court. The Court held that the district court incorrectly believed Denver was required to prove the existence of discrimination. Instead of considering whether Denver had demonstrated strong evidence from which an inference of past or present discrimination could be drawn, the district court analyzed whether Denver's evidence showed that there is pervasive discrimination. Id. at 970. The court, quoting *Concrete Works II*, stated that "the Fourteenth Amendment does not require a court to make an ultimate finding of discrimination before a municipality may take affirmative steps to eradicate discrimination." Id. at 970, quoting *Concrete Works II*, 36 F.3d 1513, 1522 (10th Cir. 1994). Denver's initial burden was to demonstrate that strong evidence of discrimination supported its conclusion that remedial measures were necessary. Strong evidence is that "approaching a prima facie case of a constitutional or statutory violation," not irrefutable or definitive proof of discrimination. Id. at 97, quoting *Croson*, 488 U.S. at 500. The burden of proof at all times remained with the contractor plaintiff to prove by a preponderance of the evidence that Denver's "evidence did not support an inference of prior discrimination and thus a remedial purpose." Id., quoting *Adarand VII*, 228 F.3d at 1176.

Denver, the Court held, did introduce evidence of discrimination against each group included in the ordinances. *Id.* at 971. Thus, Denver's evidence did not suffer from the problem discussed by the court in *Croson*. The Court held the district court erroneously concluded that Denver must demonstrate that the private firms directly engaged in any discrimination in which Denver passively participates do so intentionally, with the purpose of disadvantaging minorities and women. The *Croson* majority concluded that a "city would have a compelling interest in preventing its tax dollars from assisting [local trade] organizations in maintaining a racially segregated construction market." *Id.* at 971, *quoting Croson*, 488 U.S. 503. Thus, the Court held Denver's burden was to introduce evidence which raised the inference of discriminatory exclusion in the local construction industry and linked its spending to that discrimination. *Id.*

The Court noted the Supreme Court has stated that the inference of discriminatory exclusion can arise from statistical disparities. *Id.*, *citing Croson*, 488 U.S. at 503. Accordingly, it concluded that Denver could meet its burden through the introduction of statistical and anecdotal evidence. To the extent the district court required Denver to introduce additional evidence to show discriminatory motive or intent on the part of private construction firms, the district court erred. Denver, according to the Court, was under no burden to identify any specific practice or policy that resulted in discrimination. Neither was Denver required to demonstrate that the purpose of any such practice or policy was to disadvantage women or minorities. *Id.* at 972.

The court found Denver's statistical and anecdotal evidence relevant because it identifies discrimination in the local construction industry, not simply discrimination in society. The court held the genesis of the identified discrimination is irrelevant and the district court erred when it discounted Denver's evidence on that basis. *Id.*

The court held the district court erroneously rejected the evidence Denver presented on marketplace discrimination. *Id.* at 973. The court rejected the district court's erroneous legal conclusion that a

municipality may only remedy its own discrimination. The court stated this conclusion is contrary to the holdings in *Concrete Works II* and the plurality opinion in *Croson. Id.* The court held it previously recognized in this case that "a municipality has a compelling interest in taking affirmative steps to remedy both public *and private* discrimination specifically identified in its area." *Id.*, *quoting Concrete Works II,* 36 F.3d at 1529 (emphasis added). In *Concrete Works II,* the court stated that "we do not read Croson as requiring the municipality to identify an exact linkage between its award of public contracts and private discrimination." *Id.*, *quoting Concrete Works II,* 36 F.3d at 1529.

The court stated that Denver could meet its burden of demonstrating its compelling interest with evidence of private discrimination in the local construction industry coupled with evidence that it has become a passive participant in that discrimination. *Id.* at 973. Thus, Denver was not required to demonstrate that it is "guilty of prohibited discrimination" to meet its initial burden. *Id.*

Additionally, the court had previously concluded that Denver's statistical studies, which compared utilization of MBE/WBEs to availability, supported the inference that "local prime contractors" are engaged in racial and gender discrimination. *Id.* at 974, *quoting Concrete Works II,* 36 F.3d at 1529. Thus, the court held Denver's disparity studies should not have been discounted because they failed to specifically identify those individuals or firms responsible for the discrimination. *Id.*

The Court's rejection of CWC's arguments and the district court findings

Use of marketplace data. The court held the district court, inter alia, erroneously concluded that the disparity studies upon which Denver relied were significantly flawed because they measured discrimination in the overall Denver MSA construction industry, not discrimination by the City itself. Id. at 974. The court found that the district court's conclusion was directly contrary to the holding in Adarand VII that evidence of both public and private discrimination in the construction industry is relevant. Id., citing Adarand VII, 228 F.3d at 1166-67).

The court held the conclusion reached by the majority in *Croson* that marketplace data are relevant in equal protection challenges to affirmative action programs was consistent with the approach later taken by the court in *Shaw v. Hunt*. *Id.* at 975. In *Shaw,* a majority of the court relied on the majority opinion in *Croson* for the broad proposition that a governmental entity's "interest in remedying the effects of past or present racial discrimination may in the proper case justify a government's use of racial distinctions." *Id.*, *quoting Shaw*, 517 U.S. at 909. The *Shaw* court did not adopt any requirement that only discrimination by the governmental entity, either directly or by utilizing firms engaged in discrimination on projects funded by the entity, was remediable. The court, however, did set out two conditions that must be met for the governmental entity to show a compelling interest. "First, the discrimination must be identified discrimination." *Id.* at 976, *quoting Shaw*, 517 U.S. at 910. The City can satisfy this condition by identifying the discrimination, "'*public or private,* with some specificity.' " *Id.* at 976, *citing Shaw*, 517 U.S. at 910, *quoting Croson,* 488 U.S. at 504 (emphasis added). The governmental entity must also have a "strong basis in evidence to conclude that remedial action was necessary." *Id.* Thus, the court concluded *Shaw* specifically stated that evidence of either public or private discrimination could be used to satisfy the municipality's burden of producing strong evidence. *Id.* at 976.

In *Adarand VII,* the court noted it concluded that evidence of marketplace discrimination can be used to support a compelling interest in remedying past or present discrimination through the use of affirmative action legislation. *Id.*, *citing Adarand VII*, 228 F.3d at 1166-67 ("[W]e may consider public and private discrimination not only in the specific area of government procurement contracts but

also in the construction industry generally; thus *any findings Congress has made as to the entire construction industry are relevant.*" (emphasis added)). Further, the court pointed out in this case it earlier rejected the argument CWC reasserted here that marketplace data are irrelevant and remanded the case to the district court to determine whether Denver could link its public spending to "the Denver MSA evidence of industry-wide discrimination." *Id.*, *quoting Concrete Works II,* 36 F.3d at 1529. The court stated that evidence explaining "the Denver government's role in contributing to the underutilization of MBEs and WBEs in the *private construction market in the Denver MSA*" was relevant to Denver's burden of producing strong evidence. *Id.*, *quoting Concrete Works II,* 36 F.3d at 1530 (emphasis added).

Consistent with the court's mandate in *Concrete Works II,* the City attempted to show at trial that it "indirectly contributed to private discrimination by awarding public contracts to firms that in turn discriminated against MBE and/or WBE subcontractors in other private portions of their business." *Id.* The City can demonstrate that it is a "'passive participant' in a system of racial exclusion practiced by elements of the local construction industry" by compiling evidence of marketplace discrimination and then linking its spending practices to the private discrimination. *Id.*, *quoting Croson,* 488 U.S. at 492.

The court rejected CWC's argument that the lending discrimination studies and business formation studies presented by Denver were irrelevant. In *Adarand VII,* the court concluded that evidence of discriminatory barriers to the formation of businesses by minorities and women and fair competition between MBE/WBEs and majority-owned construction firms shows a "strong link" between a government's "disbursements of public funds for construction contracts and the channeling of those funds due to private discrimination." *Id.* at 977, *quoting Adarand VII*, 228 F.3d at 1167-68. The court found that evidence that private discrimination resulted in barriers to business formation is relevant because it demonstrates that MBE/WBEs are precluded *at the outset* from competing for public construction contracts. The court also found that evidence of barriers to fair competition is relevant because it again demonstrates that *existing* MBE/WBEs are precluded from competing for public contracts. Thus, like the studies measuring disparities in the utilization of MBE/WBEs in the Denver MSA construction industry, studies showing that discriminatory barriers to business formation exist in the Denver construction industry are relevant to the City's showing that it indirectly participates in industry discrimination. *Id.* at 977.

The City presented evidence of lending discrimination to support its position that MBE/WBEs in the Denver MSA construction industry face discriminatory barriers to business formation. Denver introduced a disparity study prepared in 1996 and sponsored by the Denver Community Reinvestment Alliance, Colorado Capital Initiatives, and the City. The Study ultimately concluded that "despite the fact that loan applicants of three different racial/ethnic backgrounds in this sample were not appreciably different as businesspeople, they were ultimately treated differently by the lenders on the crucial issue of loan approval or denial." *Id.* at 977-78. In *Adarand VII,* the court concluded that this study, among other evidence, "strongly support[ed] an initial showing of discrimination in lending." *Id.* at 978, *quoting*, *Adarand VII*, 228 F.3d at 1170, n. 13 ("Lending discrimination alone of course does not justify action in the construction market. However, the persistence of such discrimination … supports the assertion that the formation, as well as utilization, of minority-owned construction enterprises has been impeded."). The City also introduced anecdotal evidence of lending discrimination in the Denver construction industry.

CWC did not present any evidence that undermined the reliability of the lending discrimination evidence but simply repeated the argument, foreclosed by circuit precedent, that it is irrelevant. The court rejected the district court criticism of the evidence because it failed to determine whether the discrimination resulted from discriminatory attitudes or from the neutral application of banking regulations. The court concluded that discriminatory motive can be inferred from the results shown in disparity studies. The court held the district court's criticism did not undermine the study's reliability as an indicator that the City is passively participating in marketplace discrimination. The court noted that in *Adarand VII* it took "judicial notice of the obvious causal connection between access to capital and ability to implement public works construction projects." *Id*. at 978, *quoting Adarand VII*, 228 F.3d at 1170.

Denver also introduced evidence of discriminatory barriers to competition faced by MBE/WBEs in the form of business formation studies. The 1990 Study and the 1995 Study both showed that all minority groups in the Denver MSA formed their own construction firms at rates lower than the total population but that women formed construction firms at higher rates. The 1997 Study examined self-employment rates and controlled for gender, marital status, education, availability of capital, and personal/family variables. As discussed, *supra,* the Study concluded that African Americans, Hispanics, and Native Americans working in the construction industry have lower rates of self-employment than similarly situated whites. Asian Americans had higher rates. The 1997 Study also concluded that minority and female business owners in the construction industry, with the exception of Asian American owners, have lower earnings than white male owners. This conclusion was reached after controlling for education, age, marital status, and disabilities. *Id.* at 978.

The court held that the district court's conclusion that the business formation studies could not be used to justify the ordinances conflicts with its holding in *Adarand VII*. "[T]he existence of evidence indicating that the number of [MBEs] would be significantly (but unquantifiably) higher but for such barriers is nevertheless relevant to the assessment of whether a disparity is sufficiently significant to give rise to an inference of discriminatory exclusion." *Id.* at 979, quoting *Adarand VII*,228 F.3d at 1174.

In sum, the court held the district court erred when it refused to consider or give sufficient weight to the lending discrimination study, the business formation studies, and the studies measuring marketplace discrimination. That evidence was legally relevant to the City's burden of demonstrating a strong basis in evidence to support its conclusion that remedial legislation was necessary. *Id*. at 979-80.

Variables. CWC challenged Denver's disparity studies as unreliable because the disparities shown in the studies may be attributable to firm size and experience rather than discrimination. Denver countered, however, that a firm's size has little effect on its qualifications or its ability to provide construction services and that MBE/WBEs, like all construction firms, can perform most services either by hiring additional employees or by employing subcontractors. CWC responded that elasticity itself is relative to size and experience; MBE/WBEs are less capable of expanding because they are smaller and less experienced. *Id.* at 980.

The court concluded that even if it assumed that MBE/WBEs are less able to expand because of their smaller size and more limited experience, CWC did not respond to Denver's argument and the evidence it presented showing that experience and size are not race- and gender-neutral variables and

that MBE/WBE construction firms are generally smaller and less experienced *because* of industry discrimination. *Id.* at 981. The lending discrimination and business formation studies, according to the court, both strongly supported Denver's argument that MBE/WBEs are smaller and less experienced because of marketplace and industry discrimination. In addition, Denver's expert testified that discrimination by banks or bonding companies would reduce a firm's revenue and the number of employees it could hire. *Id.*

Denver also argued its Studies controlled for size and the 1995 Study controlled for experience. It asserted that the 1990 Study measured revenues per employee for construction for MBE/WBEs and concluded that the resulting disparities, "suggest[ ] that even among firms of the same employment size, industry utilization of MBEs and WBEs was lower than that of non-minority male-owned firms." *Id.* at 982. Similarly, the 1995 Study controlled for size, calculating, *inter alia,* disparity indices for firms with no paid employees which presumably are the same size.

Based on the uncontroverted evidence presented at trial, the court concluded that the district court did not give sufficient weight to Denver's disparity studies because of its erroneous conclusion that the studies failed to adequately control for size and experience. The court held that Denver is permitted to make assumptions about capacity and qualification of MBE/WBEs to perform construction services if it can support those assumptions. The court found the assumptions made in this case were consistent with the evidence presented at trial and supported the City's position that a firm's size does not affect its qualifications, willingness, or ability to perform construction services and that the smaller size and lesser experience of MBE/WBEs are, themselves, the result of industry discrimination. Further, the court pointed out CWC did not conduct its own disparity study using marketplace data and thus did not demonstrate that the disparities shown in Denver's studies would decrease or disappear if the studies controlled for size and experience to CWC's satisfaction. Consequently, the court held CWC's rebuttal evidence was insufficient to meet its burden of discrediting Denver's disparity studies on the issue of size and experience. *Id.* at 982.

Specialization. The district court also faulted Denver's disparity studies because they did not control for firm specialization. The court noted the district court's criticism would be appropriate only if there was evidence that MBE/WBEs are more likely to specialize in certain construction fields. *Id.* at 982.

The court found there was no identified evidence showing that certain construction specializations require skills less likely to be possessed by MBE/WBEs. The court found relevant the testimony of the City's expert, that the data he reviewed showed that MBEs were represented "widely across the different [construction] specializations." *Id.* at 982-83. There was no contrary testimony that aggregation bias caused the disparities shown in Denver's studies. *Id.* at 983.

The court held that CWC failed to demonstrate that the disparities shown in Denver's studies are eliminated when there is control for firm specialization. In contrast, one of the Denver studies, which controlled for SIC-code subspecialty and still showed disparities, provided support for Denver's argument that firm specialization does not explain the disparities. *Id.* at 983.

The court pointed out that disparity studies may make assumptions about availability as long as the same assumptions can be made for all firms. *Id.* at 983.

Utilization of MBE/WBEs on City projects. CWC argued that Denver could not demonstrate a compelling interest because it overutilized MBE/WBEs on City construction projects. This argument, according to the court, was an extension of CWC's argument that Denver could justify the

ordinances only by presenting evidence of discrimination by the City itself or by contractors while working on City projects. Because the court concluded that Denver could satisfy its burden by showing that it is an indirect participant in industry discrimination, CWC's argument relating to the utilization of MBE/WBEs on City projects goes only to the weight of Denver's evidence. *Id.* at 984.

Consistent with the court's mandate in *Concrete Works II,* at trial Denver sought to demonstrate that the utilization data from projects subject to the goals program were tainted by the program and "reflect[ed] the intended remedial effect on MBE and WBE utilization." *Id*. at 984, *quoting Concrete Works II*, 36 F.3d at 1526. Denver argued that the non-goals data were the better indicator of past discrimination in public contracting than the data on all City construction projects. *Id*. at 984-85. The court concluded that Denver presented ample evidence to support the conclusion that the evidence showing MBE/WBE utilization on City projects not subject to the ordinances or the goals programs is the better indicator of discrimination in City contracting. *Id*. at 985.

The court rejected CWC's argument that the marketplace data were irrelevant but agreed that the non-goals data were also relevant to Denver's burden. The court noted that Denver did not rely heavily on the non-goals data at trial but focused primarily on the marketplace studies to support its burden. *Id*. at 985.

In sum, the court held Denver demonstrated that the utilization of MBE/WBEs on City projects had been affected by the affirmative action programs that had been in place in one form or another since 1977. Thus, the non-goals data were the better indicator of discrimination in public contracting. The court concluded that, on balance, the non-goals data provided some support for Denver's position that racial and gender discrimination existed in public contracting before the enactment of the ordinances. *Id*. at 987-88.

Anecdotal evidence. The anecdotal evidence, according to the court, included several incidents involving profoundly disturbing behavior on the part of lenders, majority-owned firms, and individual employees. Id. at 989. The court found that the anecdotal testimony revealed behavior that was not merely sophomoric or insensitive, but which resulted in real economic or physical harm. While CWC also argued that all new or small contractors have difficulty obtaining credit and that treatment the witnesses characterized as discriminatory is experienced by all contractors, Denver's witnesses specifically testified that they believed the incidents they experienced were motivated by race or gender discrimination. The court found they supported those beliefs with testimony that majority-owned firms were not subject to the same requirements imposed on them. *Id.*

The court held there was no merit to CWC's argument that the witnesses' accounts must be verified to provide support for Denver's burden. The court stated that anecdotal evidence is nothing more than a witness' narrative of an incident told from the witness' perspective and including the witness' perceptions. *Id*.

After considering Denver's anecdotal evidence, the district court found that the evidence "shows that race, ethnicity and gender affect the construction industry and those who work in it" and that the egregious mistreatment of minority and women employees "had direct financial consequences" on construction firms. *Id*. at 989, *quoting Concrete Works III*, 86 F. Supp.2d at 1074, 1073. Based on the district court's findings regarding Denver's anecdotal evidence and its review of the record, the court concluded that the anecdotal evidence provided persuasive, unrebutted support for Denver's initial burden. *Id*. at 989-90, *citing Int'l Bhd. of Teamsters v. United States,* 431 U.S. 324, 339 (1977) (concluding that anecdotal evidence presented in a pattern or practice discrimination case was persuasive because it "brought the cold [statistics] convincingly to life").

Summary. The court held the record contained extensive evidence supporting Denver's position that it had a strong basis in evidence for concluding that the 1990 Ordinance and the 1998 Ordinance were necessary to remediate discrimination against both MBEs and WBEs. *Id.* at 990. The information available to Denver and upon which the ordinances were predicated, according to the court, indicated that discrimination was persistent in the local construction industry and that Denver was, at least, an indirect participant in that discrimination.

To rebut Denver's evidence, the court stated CWC was required to "establish that Denver's evidence did not constitute strong evidence of such discrimination." *Id.* at 991, *quoting Concrete Works II,* 36 F.3d at 1523. CWC could not meet its burden of proof through conjecture and unsupported criticisms of Denver's evidence. Rather, it must present "credible, particularized evidence." *Id.*, *quoting Adarand VII,* 228 F.3d at 1175. The court held that CWC did not meet its burden. CWC *hypothesized* that the disparities shown in the studies on which Denver relies could be explained by any number of factors other than racial discrimination. However, the court found it did not conduct its own marketplace disparity study controlling for the disputed variables and presented no other evidence from which the court could conclude that such variables explain the disparities. *Id.* at 991-92.

Narrow tailoring. Having concluded that Denver demonstrated a compelling interest in the race-based measures and an important governmental interest in the gender-based measures, the court held it must examine whether the ordinances were narrowly tailored to serve the compelling interest and are substantially related to the achievement of the important governmental interest. I*d.* at 992.

The court stated it had previously concluded in its earlier decisions that Denver's program was narrowly tailored. CWC appealed the grant of summary judgment and that appeal culminated in the decision in *Concrete Works II.* The court reversed the grant of summary judgment on the compelling-interest issue and concluded that CWC had waived any challenge to the narrow tailoring conclusion reached by the district court. Because the court found Concrete Works did not challenge the district court's conclusion with respect to the second prong of *Croson's* strict scrutiny standard — *i.e.*, that the Ordinance is narrowly tailored to remedy past and present discrimination — the court held it need not address this issue. *Id.* at 992, *citing Concrete Works II,* 36 F.3d at 1531, n. 24.

The court concluded that the district court lacked authority to address the narrow tailoring issue on remand because none of the exceptions to the law of the case doctrine are applicable. The district court's earlier determination that Denver's affirmative-action measures were narrowly tailored is law of the case and binding on the parties.

6. Kornhass Construction, Inc. v. State of Oklahoma, Department of Central Services, 140 F.Supp.2d 1232 (W.D. OK. 2001)

Plaintiffs, non-minority contractors, brought this action against the State of Oklahoma challenging minority bid preference provisions in the Oklahoma Minority Business Enterprise Assistance Act ("MBE Act"). The Oklahoma MBE Act established a bid preference program by which certified minority business enterprises are given favorable treatment on competitive bids submitted to the state. 140 F.Supp.2d at 1235–36. Under the MBE Act, the bids of non-minority contractors were raised by 5 percent, placing them at a competitive disadvantage according to the district court. *Id.* at 1235–1236.

The named plaintiffs bid on state contracts in which their bids were increased by 5 percent as they were non-minority business enterprises. Although the plaintiffs actually submitted the lowest dollar

bids, once the 5 percent factor was applied, minority bidders became the successful bidders on certain contracts. 140 F.Supp. at 1237.

In determining the constitutionality or validity of the Oklahoma MBE Act, the district court was guided in its analysis by the Tenth Circuit Court of Appeals decision in *Adarand Constructors, Inc. v. Slater*, 288 F.3d 1147 (10th Cir. 2000). The district court pointed out that in *Adarand VII*, the Tenth Circuit found compelling evidence of barriers to both minority business formation and existing minority businesses. *Id*. at 1238. In sum, the district court noted that the Tenth Circuit concluded that the Government had met its burden of presenting a strong basis in evidence sufficient to support its articulated, constitutionally valid, compelling interest. 140 F.Supp.2d at 1239, *citing Adarand VII*, 228 F.3d 1147, 1174.

Compelling state interest. The district court, following Adarand VII, applied the strict scrutiny analysis, arising out of the Fourteenth Amendment's Equal Protection Clause, in which a race-based affirmative action program withstands strict scrutiny only if it is narrowly tailored to serve a compelling governmental interest. *Id.* at 1239. The district court pointed out that it is clear from Supreme Court precedent, there may be a compelling interest sufficient to justify race-conscious affirmative action measures. Id. The Fourteenth Amendment permits race-conscious programs that seek both to eradicate discrimination by the governmental entity itself and to prevent the governmental entity from becoming a "passive participant" in a system of racial exclusion practiced by private businesses. Id. at 1240. Therefore, the district court concluded that both the federal and state governments have a compelling interest assuring that public dollars do not serve to finance the evil of private prejudice. Id.

The district court stated that a "mere statistical disparity in the proportion of contracts awarded to a particular group, standing alone, does not demonstrate the evil of private or public racial prejudice." *Id*. Rather, the court held that the "benchmark for judging the adequacy of a state's factual predicate for affirmative action legislation is whether there exists a strong basis in the evidence of the state's conclusion that remedial action was necessary." *Id.* The district court found that the Supreme Court made it clear that the state bears the burden of demonstrating a strong basis in evidence for its conclusion that remedial action was necessary by proving either that the state itself discriminated in the past or was "a passive participant" in private industry's discriminatory practices. *Id*. at 1240, *citing* to *Associated General Contractors of Ohio, Inc. v. Drabik*, 214 F.3d 730, 735 (6th Cir. 2000) and *City of Richmond v. J.A. Croson Company*, 488 U.S. 469 at 486-492 (1989).

With this background, the State of Oklahoma stated that its compelling state interest "is to promote the economy of the State and to ensure that minority business enterprises are given an opportunity to compete for state contracts." *Id*. at 1240. Thus, the district court found the State admitted that the MBE Act's bid preference "is not based on past discrimination," rather, it is based on a desire to "encourag[e] economic development of minority business enterprises which in turn will benefit the State of Oklahoma as a whole." *Id*. In light of *Adarand VII*, and prevailing Supreme Court case law, the district court found that this articulated interest is not "compelling" in the absence of evidence of past or present racial discrimination. *Id.*

The district court considered testimony presented by Intervenors who participated in the case for the defendants and asserted that the Oklahoma legislature conducted an interim study prior to adoption of the MBE Act, during which testimony and evidence were presented to members of the Oklahoma

Legislative Black Caucus and other participating legislators. The study was conducted more than 14 years prior to the case and the Intervenors did not actually offer any of the evidence to the court in this case. The Intervenors submitted an affidavit from the witness who serves as the Title VI Coordinator for the Oklahoma Department of Transportation. The court found that the affidavit from the witness averred in general terms that minority businesses were discriminated against in the awarding of state contracts. The district court found that the Intervenors have not produced — or indeed even described — the evidence of discrimination. *Id.* at 1241. The district court found that it cannot be discerned from the documents which minority businesses were the victims of discrimination, or which racial or ethnic groups were targeted by such alleged discrimination. *Id.*

The court also found that the Intervenors' evidence did not indicate what discriminatory acts or practices allegedly occurred, or when they occurred. *Id.* The district court stated that the Intervenors did not identify "a single qualified, minority-owned bidder who was excluded from a state contract." *Id.* The district court, thus, held that broad allegations of "systematic" exclusion of minority businesses were not sufficient to constitute a compelling governmental interest in remedying past or current discrimination. *Id.* at 1242. The district court stated that this was particularly true in light of the "State's admission here that the State's governmental interest was not in remedying past discrimination in the state competitive bidding process, but in 'encouraging economic development of minority business enterprises which in turn will benefit the State of Oklahoma as a whole.'" *Id.* at 1242.

The court found that the State defendants failed to produce any admissible evidence of a single, specific discriminatory act, or any substantial evidence showing a pattern of deliberate exclusion from state contracts of minority-owned businesses. *Id.* at 1241 - 1242, footnote 11.

The district court also noted that the Sixth Circuit Court of Appeals in *Drabik* rejected Ohio's statistical evidence of underutilization of minority contractors because the evidence did not report the actual use of minority firms; rather, they reported only the use of those minority firms that had gone to the trouble of being certified and listed by the state. *Id.* at 1242, footnote 12. The district court stated that, as in *Drabik*, the evidence presented in support of the Oklahoma MBE Act failed to account for the possibility that some minority contractors might not register with the state, and the statistics did not account for any contracts awarded to businesses with minority ownership of less than 51 percent, or for contracts performed in large part by minority-owned subcontractors where the prime contractor was not a certified minority-owned business. *Id.*

The district court found that the MBE Act's minority bidding preference was not predicated upon a finding of discrimination in any particular industry or region of the state, or discrimination against any particular racial or ethnic group. The court stated that there was no evidence offered of actual discrimination, past or present, against the specific racial and ethnic groups to whom the preference was extended, other than an attempt to show a history of discrimination against African Americans. *Id.* at 1242.

Narrow tailoring. The district court found that even if the State's goals could not be considered "compelling," the State did not show that the MBE Act was narrowly tailored to serve those goals. The court pointed out that the Tenth Circuit in Adarand VII identified six factors the court must consider in determining whether the MBE Act's minority preference provisions were sufficiently narrowly tailored to satisfy equal protection: (1) the availability of race-neutral alternative remedies;

(2) limits on the duration of the challenged preference provisions; (3) flexibility of the preference provisions; (4) numerical proportionality; (5) the burden on third parties; and (6) over- or under-inclusiveness. *Id.* at 1242-1243.

First, in terms of race-neutral alternative remedies, the court found that the evidence offered showed, at most, that nominal efforts were made to assist minority-owned businesses prior to the adoption of the MBE Act's racial preference program. *Id.* at 1243. The court considered evidence regarding the Minority Assistance Program, but found that to be primarily informational services only, and was not designed to actually assist minorities or other disadvantaged contractors to obtain contracts with the State of Oklahoma. *Id.* at 1243. In contrast to this "informational" program, the court noted the Tenth Circuit in *Adarand VII* favorably considered the federal government's use of racially neutral alternatives aimed at disadvantaged businesses, including assistance with obtaining project bonds, assistance with securing capital financing, technical assistance, and other programs designed to assist start-up businesses. *Id.* at 1243 *citing Adarand VII*, 228 F.3d at 1178-1179.

The district court found that it does not appear from the evidence that Oklahoma's Minority Assistance Program provided the type of race-neutral relief required by the Tenth Circuit in *Adarand VII*, in the Supreme Court in the *Croson* decision, nor does it appear that the Program was racially neutral. *Id.* at 1243. The court found that the State of Oklahoma did not show any meaningful form of assistance to new or disadvantaged businesses prior to the adoption of the MBE Act, and thus, the court found that the state defendants had not shown that Oklahoma considered race-neutral alternative means to achieve the state's goal prior to adoption of the minority bid preference provisions. *Id.* at 1243.

In a footnote, the district court pointed out that the Tenth Circuit has recognized racially neutral programs designed to assist *all* new or financially disadvantaged businesses in obtaining government contracts tend to benefit minority-owned businesses, and can help alleviate the effects of past and present-day discrimination. *Id.* at 1243, footnote 15 *citing Adarand VII*.

The court considered the evidence offered of post-enactment efforts by the State to increase minority participation in State contracting. The court found that most of these efforts were directed toward encouraging the participation of certified minority business enterprises, "and are thus not racially neutral. This evidence fails to demonstrate that the State employed race-neutral alternative measures prior to or after adopting the Minority Business Enterprise Assistance Act." *Id.* at 1244. Some of the efforts the court found were directed toward encouraging the participation of certified minority business enterprises and thus not racially neutral, included mailing vendor registration forms to minority vendors, telephoning and mailing letters to minority vendors, providing assistance to vendors in completing registration forms, assuring the vendors received bid information, preparing a minority business directory and distributing it to all state agencies, periodically mailing construction project information to minority vendors, and providing commodity information to minority vendors upon request. *Id.* at 1244, footnote 16.

In terms of durational limits and flexibility, the court found that the "goal" of 10 percent of the state's contracts being awarded to certified minority business enterprises had never been reached, or even approached, during the thirteen years since the MBE Act was implemented. *Id.* at 1244. The court found the defendants offered no evidence that the bid preference was likely to end at any time in the foreseeable future, or that it is otherwise limited in its duration. *Id.* Unlike the federal programs

at issue in *Adarand VII*, the court stated the Oklahoma MBE Act has no inherent time limit, and no provision for disadvantaged minority-owned businesses to "graduate" from preference eligibility. *Id.* The court found the MBE Act was not limited to those minority-owned businesses which are shown to be economically disadvantaged. *Id.*

The court stated that the MBE Act made no attempt to address or remedy any actual, demonstrated past or present racial discrimination, and the MBE Act's duration was not tied in any way to the eradication of such discrimination. *Id*. Instead, the court found the MBE Act rests on the "questionable assumption that 10 percent of all state contract dollars should be awarded to certified minority-owned and operated businesses, without any showing that this assumption is reasonable." *Id*. at 1244.

By the terms of the MBE Act, the minority preference provisions would continue in place for five years after the goal of 10 percent minority participation was reached, and thus the district court concluded that the MBE Act's minority preference provisions lacked reasonable durational limits. *Id.* at 1245.

With regard to the factor of "numerical proportionality" between the MBE Act's aspirational goal and the number of existing available minority-owned businesses, the court found the MBE Act's 10 percent goal was not based upon demonstrable evidence of the availability of minority contractors who were either qualified to bid or who were ready, willing and able to become qualified to bid on state contracts. *Id.* at 1246–1247. The court pointed out that the MBE Act made no attempt to distinguish between the four minority racial groups, so that contracts awarded to members of all of the preferred races were aggregated in determining whether the 10 percent aspirational goal had been reached. *Id*. at 1246. In addition, the court found the MBE Act aggregated all state contracts for goods and services, so that minority participation was determined by the total number of dollars spent on state contracts. *Id.*

The court stated that in *Adarand VII*, the Tenth Circuit rejected the contention that the aspirational goals were required to correspond to an actual finding as to the number of existing minority-owned businesses. *Id.* at 1246. The court noted that the government submitted evidence in *Adarand VII*, that the effects of past discrimination had excluded minorities from entering the construction industry, and that the number of available minority subcontractors reflected that discrimination. *Id*. In light of this evidence, the district court said the Tenth Circuit held that the existing percentage of minority-owned businesses is "not necessarily an absolute cap" on the percentage that a remedial program might legitimately seek to achieve. *Id*. at 1246, *citing Adarand VII*, 228 F.3d at 1181.

Unlike *Adarand VII*, the court found that the Oklahoma State defendants did not offer "substantial evidence" that the minorities given preferential treatment under the MBE Act were prevented, through past discrimination, from entering any particular industry, or that the number of available minority subcontractors in that industry reflects that discrimination. 140 F.Supp.2d at 1246. The court concluded that the Oklahoma State defendants did not offer any evidence of the number of minority-owned businesses doing business in any of the many industries covered by the MBE Act. *Id.* at 1246–1247.

With regard to the impact on third parties factor, the court pointed out the Tenth Circuit in *Adarand VII* stated the mere possibility that innocent parties will share the burden of a remedial program is

itself insufficient to warrant the conclusion that the program is not narrowly tailored. *Id*. at 1247. The district court found the MBE Act's bid preference provisions prevented non-minority businesses from competing on an equal basis with certified minority business enterprises, and that in some instances plaintiffs had been required to lower their intended bids because they knew minority firms were bidding. *Id*. The court pointed out that the 5 percent preference is applicable to *all* contracts awarded under the state's Central Purchasing Act with no time limitation. *Id*.

In terms of the "under- and over-inclusiveness" factor, the court observed that the MBE Act extended its bidding preference to several racial minority groups without regard to whether each of those groups had suffered from the effects of past or present racial discrimination. *Id*. at 1247. The district court reiterated the Oklahoma State defendants did not offer any evidence at all that the minority racial groups identified in the Act had actually suffered from discrimination. *Id*.

Second, the district court found the MBE Act's bidding preference extends to all contracts for goods and services awarded under the State's Central Purchasing Act, without regard to whether members of the preferred minority groups had been the victims of past or present discrimination within that particular industry or trade. *Id*.

Third, the district court noted the preference extends to all businesses certified as minority-owned and controlled, without regard to whether a particular business is economically or socially disadvantaged, or has suffered from the effects of past or present discrimination. *Id*. The court thus found that the factor of over-inclusiveness weighs against a finding that the MBE Act was narrowly tailored. *Id*.

The district court in conclusion found that the Oklahoma MBE Act violated the Constitution's Fifth Amendment guarantee of equal protection and granted the plaintiffs' Motion for Summary Judgment.

7. In re City of Memphis, 293 F.3d 345 (6th Cir. 2002)

This case is instructive to the disparity study in particular based on its holding that a local government may be prohibited from utilizing post-enactment evidence in support of a MBE/WBE-type program. The United States Court of Appeals for Sixth Circuit held that pre-enactment evidence was required to justify the City of Memphis' MBE/WBE Program. The Sixth Circuit held that a government must have had sufficient evidentiary justification for a racially conscious statute in advance of its passage. The district court had ruled that the City could not introduce the post-enactment study as evidence of a compelling interest to justify its MBE/WBE Program. The Sixth Circuit denied the City's application for an interlocutory appeal on the district court's order and refused to grant the City's request to appeal this issue.

8. Builders Ass'n of Greater Chicago v. County of Cook, Chicago, 256 F.3d 642 (7th Cir. 2001)

This case is instructive to the disparity study because of its analysis of the Cook County MBE/WBE program and the evidence used to support that program. The decision emphasizes the need for any race-conscious program to be based upon credible evidence of discrimination by the local government against MBE/WBEs and to be narrowly tailored to remedy only that identified discrimination.

In *Builders Ass'n of Greater Chicago v. County of Cook, Chicago*, 256 F.3d 642 (7th Cir. 2001) the United States Court of Appeals for the Seventh Circuit held the Cook County, Chicago MBE/WBE Program was unconstitutional. The court concluded there was insufficient evidence of a compelling interest. The court held there was no credible evidence that Cook County in the award of construction contacts discriminated against any of the groups "favored" by the Program. The court also found that the Program was not "narrowly tailored" to remedy the wrong sought to be redressed, in part because it was over-inclusive in the definition of minorities. The court noted the list of minorities included groups that have not been subject to discrimination by Cook County.

The court considered as an unresolved issue whether a different, and specifically a more permissive, standard than strict scrutiny is applicable to preferential treatment on the basis of sex, rather than race or ethnicity. 256 F.3d at 644. The court noted that the United States Supreme Court in *United States v. Virginia* ("*VMI*"), 518 U.S. 515, 532 and n.6 (1996), held racial discrimination to a stricter standard than sex discrimination, although the court in *Cook County* stated the difference between the applicable standards has become "vanishingly small." *Id.* The court pointed out that the Supreme Court said in the *VMI* case, that "parties who seek to defend gender-based government action must demonstrate an 'exceedingly persuasive' justification for that action …" and, realistically, the law can ask no more of race-based remedies either." 256 F.3d at 644, *quoting* in part *VMI*, 518 U.S. at 533. The court indicated that the Eleventh Circuit Court of Appeals in the *Engineering Contract Association of South Florida, Inc. v. Metropolitan Dade County*, 122 F.3d 895, 910 (11th Cir. 1997) decision created the "paradox that a public agency can provide stronger remedies for sex discrimination than for race discrimination; it is difficult to see what sense that makes." 256 F.3d at 644. But, since Cook County did not argue for a different standard for the minority and women's "set aside programs," the women's program the court determined must clear the same "hurdles" as the minority program." 256 F.3d at 644-645.

The court found that since the ordinance requires prime contractors on public projects to reserve a substantial portion of the subcontracts for minority contractors, which is inapplicable to private projects, it is "to be expected that there would be more soliciting of these contractors on public than on private projects." *Id.* Therefore, the court did not find persuasive that there was discrimination based on this difference alone. 256 F.3d at 645. The court pointed out the County "conceded that [it] had no specific evidence of pre-enactment discrimination to support the ordinance." 256 F.3d at 645 quoting the district court decision, 123 F.Supp.2d at 1093. The court held that a "public agency must have a strong evidentiary basis for thinking a discriminatory remedy appropriate *before* it adopts the remedy." 256 F.3d at 645 (emphasis in original).

The court stated that minority enterprises in the construction industry "tend to be subcontractors, moreover, because as the district court found not clearly erroneously, 123 F.Supp.2d at 1115, they tend to be new and therefore small and relatively untested — factors not shown to be attributable to discrimination by the County." 256 F.3d at 645. The court held that there was no basis for attributing to the County any discrimination that prime contractors may have engaged in. *Id.* The court noted that "[i]f prime contractors on County projects were discriminating against minorities and this was known to the County, whose funding of the contracts thus knowingly perpetuated the discrimination, the County might be deemed sufficiently complicit … to be entitled to take remedial action." *Id.* But, the court found "of that there is no evidence either." *Id.*

The court stated that if the County had been complicit in discrimination by prime contractors, it found "puzzling" to try to remedy that discrimination by requiring discrimination in favor of minority stockholders, as distinct from employees. 256 F.3d at 646. The court held that even if the record made a case for remedial action of the general sort found in the MWBE ordinance by the County, it would "flunk the constitutional test" by not being carefully designed to achieve the ostensible remedial aim and no more. 256 F.3d at 646. The court held that a state and local government that has discriminated just against blacks may not by way of remedy discriminate in favor of blacks and Asian Americans and women. *Id*. Nor, the court stated, may it discriminate more than is necessary to cure the effects of the earlier discrimination. *Id*. "Nor may it continue the remedy in force indefinitely, with no effort to determine whether, the remedial purpose attained, continued enforcement of the remedy would be a gratuitous discrimination against nonminority persons." *Id*. The court, therefore, held that the ordinance was not "narrowly tailored" to the wrong that it seeks to correct. *Id*.

The court thus found that the County both failed to establish the premise for a racial remedy, and also that the remedy goes further than is necessary to eliminate the evil against which it is directed. 256 F.3d at 647. The court held that the list of "favored minorities" included groups that have never been subject to significant discrimination by Cook County. *Id*. The court found it unreasonable to "presume" discrimination against certain groups merely on the basis of having an ancestor who had been born in a particular country. *Id*. Therefore, the court held the ordinance was overinclusive.

The court found that the County did not make any effort to show that, were it not for a history of discrimination, minorities would have 30 percent, and women 10 percent, of County construction contracts. 256 F.3d at 647. The court also rejected the proposition advanced by the County in this case—"that a comparison of the fraction of minority subcontractors on public and private projects established discrimination against minorities by prime contractors on the latter type of project." 256 F.3d at 647-648.

9. Associated Gen. Contractors v. Drabik, 214 F.3d 730 (6th Cir. 2000), affirming Case No. C2-98-943, 998 WL 812241 (S.D. Ohio 1998)

This case is instructive to the disparity study based on the analysis applied in finding the evidence insufficient to justify an MBE/WBE program, and the application of the narrowly tailored test. The Sixth Circuit Court of Appeals enjoined the enforcement of the state MBE program, and in so doing reversed state court precedent finding the program constitutional. This case affirmed a district court decision enjoining the award of a "set-aside" contract based on the State of Ohio's MBE program with the award of construction contracts. The court held, among other things, that the mere existence of societal discrimination was insufficient to support a racial classification. The court found that the economic data were insufficient and too outdated. The court held the State could not establish a compelling governmental interest and that the statute was not narrowly tailored. The court held, among other things, the statute failed the narrow tailoring test because there was no evidence that the State had considered race-neutral remedies.

The court was mindful of the fact that it was striking down an entire class of programs by declaring the State of Ohio MBE statute in question unconstitutional, and noted that its decision was "not reconcilable" with the Ohio Supreme Court's decision in *Ritchie Produce*, 707 N.E.2d 871 (Ohio 1999) (upholding the Ohio State MBE Program).

10. W.H. Scott Constr. Co. v. City of Jackson, 199 F.3d 206 (5th Cir. 1999)

This case is instructive to the disparity study because the decision highlights the evidentiary burden imposed by the courts necessary to support a local MBE/WBE program. In addition, the Fifth Circuit permitted the aggrieved contractor to recover lost profits from the City of Jackson, Mississippi due to the City's enforcement of the MBE/WBE program that the court held was unconstitutional.

The Fifth Circuit, applying strict scrutiny, held that the City of Jackson, Mississippi failed to establish a compelling governmental interest to justify its policy placing 15 percent minority participation goals for City construction contracts. In addition, the court held the evidence upon which the City relied was faulty for several reasons, including because it was restricted to the letting of prime contracts by the City under the City's Program, and it did not include an analysis of the availability and utilization of qualified minority subcontractors, the relevant statistical pool in the City's construction projects. Significantly, the court also held that the plaintiff in this case could recover lost profits against the City as damages as a result of being denied a bid award based on the application of the MBE/WBE program.

11. Eng'g Contractors Ass'n of S. Florida v. Metro. Dade County, 122 F.3d 895 (11th Cir. 1997)

Engineering Contractors Association of South Florida v. Metropolitan Engineering Contractors Association is a paramount case in the Eleventh Circuit and is instructive to the disparity study. This decision has been cited and applied by the courts in various circuits that have addressed MBE/WBE-type programs or legislation involving local government contracting and procurement.

In *Engineering Contractors Association*, six trade organizations (the "plaintiffs") filed suit in the district court for the Southern District of Florida, challenging three affirmative action programs administered by Engineering Contractors Association, Florida, (the "County") as violative of the Equal Protection Clause. 122 F.3d 895, 900 (11th Cir. 1997). The three affirmative action programs challenged were the Black Business Enterprise program ("BBE"), the Hispanic Business Enterprise program ("HBE"), and the Woman Business Enterprise program, ("WBE"), (collectively "MWBE" programs). *Id.* The plaintiffs challenged the application of the program to County construction contracts. *Id.*

For certain classes of construction contracts valued over $25,000, the County set participation goals of 15 percent for BBEs, 19 percent for HBEs, and 11 percent for WBEs. *Id.* at 901. The County established five "contract measures" to reach the participation goals: (1) set asides, (2) subcontractor goals, (3) project goals, (4) bid preferences, and (5) selection factors. Once a contract was identified as covered by a participation goal, a review committee would determine whether a contract measure should be utilized. *Id.* The County Commission would make the final determination and its decision was appealable to the County Manager. *Id.* The County reviewed the efficacy of the MWBE programs annually, and reevaluated the continuing viability of the MWBE programs every five years. *Id.*

In a bench trial, the district court applied strict scrutiny to the BBE and HBE programs and held that the County lacked the requisite "strong basis in evidence" to support the race- and ethnicity-conscious measures. *Id.* at 902. The district court applied intermediate scrutiny to the WBE program and found that the "County had presented insufficient probative evidence to support its stated

rationale for implementing a gender preference." *Id*. Therefore, the County had failed to demonstrate a "compelling interest" necessary to support the BBE and HBE programs, and failed to demonstrate an "important interest" necessary to support the WBE program. *Id*. The district court assumed the existence of a sufficient evidentiary basis to support the existence of the MWBE programs but held the BBE and HBE programs were not narrowly tailored to the interests they purported to serve; the district court held the WBE program was not substantially related to an important government interest. *Id*. The district court entered a final judgment enjoining the County from continuing to operate the MWBE programs and the County appealed. The Eleventh Circuit Court of Appeals affirmed. *Id*. at 900, 903.

On appeal, the Eleventh Circuit considered four major issues:

1. Whether the plaintiffs had standing. [The Eleventh Circuit answered this in the affirmative and that portion of the opinion is omitted from this summary];

2. Whether the district court erred in finding the County lacked a "strong basis in evidence" to justify the existence of the BBE and HBE programs;

3. Whether the district court erred in finding the County lacked a "sufficient probative basis in evidence" to justify the existence of the WBE program; and

4. Whether the MWBE programs were narrowly tailored to the interests they were purported to serve.

Id. at 903.

The Eleventh Circuit held that the BBE and HBE programs were subject to the strict scrutiny standard enunciated by the U.S. Supreme Court in *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469 (1989). *Id*. at 906. Under this standard, "an affirmative action program must be based upon a 'compelling government interest' and must be 'narrowly tailored' to achieve that interest." *Id*. The Eleventh Circuit further noted:

> In practice, the interest that is alleged in support of racial preferences is almost always the same — remedying past or present discrimination. That interest is widely accepted as compelling. As a result, the true test of an affirmative action program is usually not the nature of the government's interest, but rather the adequacy of the evidence of discrimination offered to show that interest.

Id. (internal citations omitted).

Therefore, strict scrutiny requires a finding of a "'strong basis in evidence' to support the conclusion that remedial action is necessary." *Id*., *citing Croson*, 488 U.S. at 500). The requisite "'strong basis in evidence' cannot rest on 'an amorphous claim of societal discrimination, on simple legislative assurances of good intention, or on congressional findings of discrimination in the national economy.'" *Id*. at 907, *citing Ensley Branch, NAACP v. Seibels*, 31 F.3d 1548, 1565 (11th Cir. 1994) (citing and applying *Croson*)). However, the Eleventh Circuit found that a governmental entity can

"justify affirmative action by demonstrating 'gross statistical disparities' between the proportion of minorities hired … and the proportion of minorities willing and able to do the work … Anecdotal evidence may also be used to document discrimination, especially if buttressed by relevant statistical evidence." *Id.* (internal citations omitted).

Notwithstanding the "exceedingly persuasive justification" language utilized by the Supreme Court in *United States v. Virginia*, 116 S. Ct. 2264 (1996) (evaluating gender-based government action), the Eleventh Circuit held that the WBE program was subject to traditional intermediate scrutiny. *Id.* at 908. Under this standard, the government must provide "sufficient probative evidence" of discrimination, which is a lesser standard than the "strong basis in evidence" under strict scrutiny. *Id.* at 910.

The County provided two types of evidence in support of the MWBE programs: (1) statistical evidence, and (2) non-statistical "anecdotal" evidence. *Id.* at 911. As an initial matter, the Eleventh Circuit found that in support of the BBE program, the County permissibly relied on substantially "post-enactment" evidence (*i.e.*, evidence based on data related to years following the initial enactment of the BBE program). *Id.* However, "such evidence carries with it the hazard that the program at issue may itself be masking discrimination that might otherwise be occurring in the relevant market." *Id.* at 912. A district court should not "speculate about what the data *might* have shown had the BBE program never been enacted." *Id.*

The statistical evidence. The County presented five basic categories of statistical evidence: (1) County contracting statistics; (2) County subcontracting statistics; (3) marketplace data statistics; (4) The Wainwright Study; and (5) The Brimmer Study. *Id.* In summary, the Eleventh Circuit held that the County's statistical evidence (described more fully below) was subject to more than one interpretation. *Id.* at 924. The district court found that the evidence was "insufficient to form the requisite strong basis in evidence for implementing a racial or ethnic preference, and that it was insufficiently probative to support the County's stated rationale for imposing a gender preference." *Id.* The district court's view of the evidence was a permissible one. *Id.*

County contracting statistics. The County presented a study comparing three factors for County non-procurement construction contracts over two time periods (1981-1991 and 1993): (1) the percentage of bidders that were MWBE firms; (2) the percentage of awardees that were MWBE firms; and (3) the proportion of County contract dollars that had been awarded to MWBE firms. *Id.* at 912.

The Eleventh Circuit found that notably, for the BBE and HBE statistics, generally there were no "consistently negative disparities between the bidder and awardee percentages. In fact, by 1993, the BBE and HBE bidders are being awarded *more* than their proportionate 'share' … when the bidder percentages are used as the baseline." *Id.* at 913. For the WBE statistics, the bidder/awardee statistics were "decidedly mixed" as across the range of County construction contracts. *Id.*

The County then refined those statistics by adding in the total percentage of annual County construction dollars awarded to MBE/WBEs, by calculating "disparity indices" for each program and classification of construction contract. The Eleventh Circuit explained:

> [A] disparity index compares the amount of contract awards a group actually got to the amount we would have expected it to get based on that group's bidding activity and awardee success rate. More specifically, a disparity index measures the participation of a group in County contracting dollars by dividing that group's contract dollar percentage by the related bidder or awardee percentage, and multiplying that number by 100 percent.

Id. at 914. "The utility of disparity indices or similar measures … has been recognized by a number of federal circuit courts." *Id*.

The Eleventh Circuit found that "[i]n general … disparity indices of 80 percent or greater, which are close to full participation, are not considered indications of discrimination." *Id*. The Eleventh Circuit noted that "the EEOC's disparate impact guidelines use the 80 percent test as the boundary line for determining a prima facie case of discrimination." *Id*., *citing* 29 C.F.R. § 1607.4D. In addition, no circuit that has "explicitly endorsed the use of disparity indices [has] indicated that an index of 80 percent or greater might be probative of discrimination." *Id*., *citing Concrete Works v. City & County of Denver*, 36 F.3d 1513, 1524 (10th Cir. 1994) (crediting disparity indices ranging from 0% to 3.8%); *Contractors Ass'n v. City of Philadelphia*, 6 F.3d 990 (3d Cir. 1993) (crediting disparity index of 4%).

After calculation of the disparity indices, the County applied a standard deviation analysis to test the statistical significance of the results. *Id*. at 914. "The standard deviation figure describes the probability that the measured disparity is the result of mere chance." *Id*. The Eleventh Circuit had previously recognized "[s]ocial scientists consider a finding of two standard deviations significant, meaning there is about one chance in 20 that the explanation for the deviation could be random and the deviation must be accounted for by some factor other than chance." *Id*.

The statistics presented by the County indicated "statistically significant underutilization of BBEs in County construction contracting." *Id*. at 916. The results were "less dramatic" for HBEs and mixed as between favorable and unfavorable for WBEs. *Id*.

The Eleventh Circuit then explained the burden of proof:

> [O]nce the proponent of affirmative action introduces its statistical proof as evidence of its remedial purpose, thereby supplying the [district] court with the means for determining that [it] had a firm basis for concluding that remedial action was appropriate, it is incumbent upon the [plaintiff] to prove their case; they continue to bear the ultimate burden of persuading the [district] court that the [defendant's] evidence did not support an inference of prior discrimination and thus a remedial purpose, or that the plan instituted on the basis of this evidence was not sufficiently 'narrowly tailored.'

Id. (internal citations omitted).

The Eleventh Circuit noted that a plaintiff has at least three methods to rebut the inference of discrimination with a "neutral explanation" by: "(1) showing that the statistics are flawed; (2) demonstrating that the disparities shown by the statistics are not significant or actionable; or (3) presenting contrasting statistical data." *Id.* (internal quotations and citations omitted). The Eleventh Circuit held that the plaintiffs produced "sufficient evidence to establish a neutral explanation for the disparities." *Id.*

The plaintiffs alleged that the disparities were "better explained by firm size than by discrimination … [because] minority and female-owned firms tend to be smaller, and that it stands to reason smaller firms will win smaller contracts." *Id.* at 916-17. The plaintiffs produced Census data indicating, on average, minority- and female-owned construction firms in Engineering Contractors Association were smaller than non-MBE/WBE firms. *Id.* at 917. The Eleventh Circuit found that the plaintiff's explanation of the disparities was a "plausible one, in light of the uncontroverted evidence that MBE/WBE construction firms tend to be substantially smaller than non-MBE/WBE firms." *Id.*

Additionally, the Eleventh Circuit noted that the County's own expert admitted that "firm size plays a significant role in determining which firms win contracts." *Id.* The expert stated:

> The size of the firm has got to be a major determinant because of course some firms are going to be larger, are going to be better prepared, are going to be in a greater natural capacity to be able to work on some of the contracts while others simply by virtue of their small size simply would not be able to do it. *Id.*

The Eleventh Circuit then summarized:

> Because they are bigger, bigger firms have a bigger chance to win bigger contracts. It follows that, all other factors being equal and in a perfectly nondiscriminatory market, one would expect the bigger (on average) non-MWBE firms to get a disproportionately higher percentage of total construction dollars awarded than the smaller MWBE firms. *Id.*

In anticipation of such an argument, the County conducted a regression analysis to control for firm size. *Id.* A regression analysis is "a statistical procedure for determining the relationship between a dependent and independent variable, *e.g.*, the dollar value of a contract award and firm size." *Id.* (internal citations omitted). The purpose of the regression analysis is "to determine whether the relationship between the two variables is statistically meaningful." *Id.*

The County's regression analysis sought to identify disparities that could not be explained by firm size, and theoretically instead based on another factor, such as discrimination. *Id.* The County conducted two regression analyses using two different proxies for firm size: (1) total awarded value of all contracts bid on; and (2) largest single contract awarded. *Id.* The regression analyses accounted for most of the negative disparities regarding MBE/WBE participation in County construction contracts (*i.e.*, most of the unfavorable disparities became statistically insignificant, corresponding to standard deviation values less than two). *Id.*

Based on an evaluation of the regression analysis, the district court held that the demonstrated disparities were attributable to firm size as opposed to discrimination. *Id.* at 918. The district court concluded that the few unexplained disparities that remained after regressing for firm size were insufficient to provide the requisite "strong basis in evidence" of discrimination of BBEs and HBEs. *Id*. The Eleventh Circuit held that this decision was not clearly erroneous. *Id*.

With respect to the BBE statistics, the regression analysis explained all but one negative disparity, for one type of construction contract between 1989-1991. *Id*. The Eleventh Circuit held the district court permissibly found that this did not constitute a "strong basis in evidence" of discrimination. *Id*.

With respect to the HBE statistics, one of the regression methods failed to explain the unfavorable disparity for one type of contract between 1989-1991, and both regression methods failed to explain the unfavorable disparity for another type of contract during that same time period. *Id*. However, by 1993, both regression methods accounted for all of the unfavorable disparities, and one of the disparities for one type of contract was actually favorable for HBEs. *Id*. The Eleventh Circuit held the district court permissibly found that this did not constitute a "strong basis in evidence" of discrimination. *Id.*

Finally, with respect to the WBE statistics, the regression analysis explained all but one negative disparity, for one type of construction contract in the 1993 period. *Id*. The regression analysis explained all of the other negative disparities, and in the 1993 period, a disparity for one type of contract was actually favorable to WBEs. *Id*. The Eleventh Circuit held the district court permissibly found that this evidence was not "sufficiently probative of discrimination." *Id.*

The County argued that the district court erroneously relied on the disaggregated data (*i.e.*, broken down by contract type) as opposed to the consolidated statistics. *Id.* at 919. The district court declined to assign dispositive weight to the aggregated data for the BBE statistics for 1989-1991 because (1) the aggregated data for 1993 did not show negative disparities when regressed for firm size, (2) the BBE disaggregated data left only one unexplained negative disparity for one type of contract for 1989-1991 when regressed for firm size, and (3) "the County's own expert testified as to the utility of examining the disaggregated data 'insofar as they reflect different kinds of work, different bidding practices, perhaps a variety of other factors that could make them heterogeneous with one another." *Id.*

Additionally, the district court noted, and the Eleventh Circuit found that "the aggregation of disparity statistics for nonheterogenous data populations can give rise to a statistical phenomenon known as 'Simpson's Paradox,' which leads to illusory disparities in improperly aggregated data that disappear when the data are disaggregated." *Id.* at 919, n. 4 (internal citations omitted). "Under those circumstances," the Eleventh Circuit held that the district court did not err in assigning less weight to the aggregated data, in finding the aggregated data for BBEs for 1989-1991 did not provide a "strong basis in evidence" of discrimination, or in finding that the disaggregated data formed an insufficient basis of support for any of the MBE/WBE programs given the applicable constitutional requirements. *Id*. at 919.

County subcontracting statistics. The County performed a subcontracting study to measure MBE/WBE participation in the County's subcontracting businesses. For each MBE/WBE category (BBE, HBE, and WBE), "the study compared the proportion of the designated group that filed a

subcontractor's release of lien on a County construction project between 1991 and 1994 with the proportion of sales and receipt dollars that the same group received during the same time period." *Id.*

The district court found the statistical evidence insufficient to support the use of race- and ethnicity-conscious measures, noting problems with some of the data measures. *Id.* at 920.

> Most notably, the denominator used in the calculation of the MWBE sales and receipts percentages is based upon the total sales and receipts from all sources for the firm filing a subcontractor's release of lien with the County. That means, for instance, that if a nationwide non-MWBE company performing 99 percent of its business outside of Dade County filed a single subcontractor's release of lien with the County during the relevant time frame, all of its sales and receipts for that time frame would be counted in the denominator against which MWBE sales and receipts are compared. As the district court pointed out, that is not a reasonable way to measure Dade County subcontracting participation.

Id. The County's argument that a strong majority (72%) of the subcontractors were located in Dade County did not render the district court's decision to fail to credit the study erroneous. *Id.*

Marketplace data statistics. The County conducted another statistical study "to see what the differences are in the marketplace and what the relationships are in the marketplace." *Id.* The study was based on a sample of 568 contractors, from a pool of 10,462 firms, that had filed a "certificate of competency" with Dade County as of January 1995. *Id.* The selected firms participated in a telephone survey inquiring about the race, ethnicity, and gender of the firm's owner, and asked for information on the firm's total sales and receipts from all sources. *Id.* The County's expert then studied the data to determine "whether meaningful relationships existed between (1) the race, ethnicity, and gender of the surveyed firm owners, and (2) the reported sales and receipts of that firm. *Id.* The expert's hypothesis was that unfavorable disparities may be attributable to marketplace discrimination. The expert performed a regression analysis using the number of employees as a proxy for size. *Id.*

The Eleventh Circuit first noted that the statistical pool used by the County was substantially larger than the actual number of firms, willing, able, and qualified to do the work as the statistical pool represented all those firms merely licensed as a construction contractor. *Id.* Although this factor did not render the study meaningless, the district court was entitled to consider that in evaluating the weight of the study. *Id.* at 921. The Eleventh Circuit quoted the Supreme Court for the following proposition: "[w]hen special qualifications are required to fill particular jobs, comparisons to the general population (rather than to the smaller group of individuals who possess the necessary qualifications) may have little probative value." *Id.*, *quoting Croson*, 488 U.S. at 501, *quoting Hazelwood Sch. Dist. v. United States*, 433 U.S. 299, 308 n. 13 (1977).

The Eleventh Circuit found that after regressing for firm size, neither the BBE nor WBE data showed statistically significant unfavorable disparities. *Id.* Although the marketplace data did reveal unfavorable disparities even after a regression analysis, the district court was not required to assign

those disparities controlling weight, especially in light of the dissimilar results of the County Contracting Statistics, discussed *supra*. *Id*.

The Wainwright Study. The County also introduced a statistical analysis prepared by Jon Wainwright, analyzing "the personal and financial characteristics of self-employed persons working full-time in the Dade County construction industry, based on data from the 1990 Public Use Microdata Sample database" (derived from the decennial census). *Id.* The study "(1) compared construction business ownership rates of MBE/WBEs to those of non-MBE/WBEs, and (2) analyzed disparities in personal income between MBE/WBE and non-MBE/WBE business owners." Id. "The study concluded that blacks, Hispanics, and women are less likely to own construction businesses than similarly situated white males, and MBE/WBEs that do enter the construction business earn less money than similarly situated white males." *Id.*

With respect to the first conclusion, Wainwright controlled for "human capital" variables (education, years of labor market experience, marital status, and English proficiency) and "financial capital" variables (interest and dividend income, and home ownership). *Id*. The analysis indicated that blacks, Hispanics and women enter the construction business at lower rates than would be expected, once numerosity, and identified human and financial capital are controlled for. *Id.* The disparities for blacks and women (but not Hispanics) were substantial and statistically significant. *Id*. at 922. The underlying theory of this business ownership component of the study is that any significant disparities remaining after control of variables are due to the ongoing effects of past and present discrimination. *Id.*

The Eleventh Circuit held, in light of *Croson*, the district court need not have accepted this theory. *Id.* The Eleventh Circuit quoted *Croson*, in which the Supreme Court responded to a similar argument advanced by the plaintiffs in that case: "There are numerous explanations for this dearth of minority participation, including past societal discrimination in education and economic opportunities *as well as both black and white career and entrepreneurial choices. Blacks may be disproportionately attracted to industries other than construction.*" *Id*., *quoting Croson*, 488 U.S. at 503. Following the Supreme Court in *Croson*, the Eleventh Circuit held "the disproportionate attraction of a minority group to non-construction industries does not mean that discrimination in the construction industry is the reason." *Id*., *quoting Croson*, 488 U.S. at 503. Additionally, the district court had evidence that between 1982 and 1987, there was a substantial growth rate of MBE/WBE firms as opposed to non-MBE/WBE firms, which would further negate the proposition that the construction industry was discriminating against minority- and women-owned firms. *Id.* at 922.

With respect to the personal income component of the Wainwright study, after regression analyses were conducted, only the BBE statistics indicated a statistically significant disparity ratio. *Id*. at 923. However, the Eleventh Circuit held the district court was not required to assign the disparity controlling weight because the study did not regress for firm size, and in light of the conflicting statistical evidence in the County Contracting Statistics and Marketplace Data Statistics, discussed supra, which did regress for firm size. *Id*.

The Brimmer Study. The final study presented by the County was conducted under the supervision of Dr. Andrew F. Brimmer and concerned only black-owned firms. *Id*. The key component of the study was an analysis of the business receipts of black-owned construction firms for the years of 1977, 1982 and 1987, based on the Census Bureau's Survey of Minority- and Women-Owned

Businesses, produced every five years. *Id*. The study sought to determine the existence of disparities between sales and receipts of black-owned firms in Dade County compared to the sales and receipts of all construction firms in Dade County. *Id.*

The study indicated substantial disparities in 1977 and 1987 but not 1982. *Id*. The County alleged that the absence of disparity in 1982 was due to substantial race-conscious measures for a major construction contract (Metrorail project), and not due to a lack of discrimination in the industry. *Id.* However, the study made no attempt to filter for the Metrorail project and "complete[ly] fail[ed]" to account for firm size. *Id.* Accordingly, the Eleventh Circuit found the district court permissibly discounted the results of the Brimmer study. *Id.* at 924.

Anecdotal evidence. In addition, the County presented a substantial amount of anecdotal evidence of perceived discrimination against BBEs, a small amount of similar anecdotal evidence pertaining to WBEs, and no anecdotal evidence pertaining to HBEs. *Id*. The County presented three basic forms of anecdotal evidence: "(1) the testimony of two County employees responsible for administering the MBE/WBE programs; (2) the testimony, primarily by affidavit, of twenty-three MBE/WBE contractors and subcontractors; and (3) a survey of black-owned construction firms." *Id*.

The County employees testified that the decentralized structure of the County construction contracting system affords great discretion to County employees, which in turn creates the opportunity for discrimination to infect the system. *Id*. They also testified to specific incidents of discrimination, for example, that MBE/WBEs complained of receiving lengthier punch lists than their non-MBE/WBE counterparts. *Id*. They also testified that MBE/WBEs encounter difficulties in obtaining bonding and financing. *Id*.

The MBE/WBE contractors and subcontractors testified to numerous incidents of perceived discrimination in the Dade County construction market, including:

> Situations in which a project foreman would refuse to deal directly with a black or female firm owner, instead preferring to deal with a white employee; instances in which an MWBE owner knew itself to be the low bidder on a subcontracting project, but was not awarded the job; instances in which a low bid by an MWBE was "shopped" to solicit even lower bids from non-MWBE firms; instances in which an MWBE owner received an invitation to bid on a subcontract within a day of the bid due date, together with a "letter of unavailability" for the MWBE owner to sign in order to obtain a waiver from the County; and instances in which an MWBE subcontractor was hired by a prime contractor, but subsequently was replaced with a non-MWBE subcontractor within days of starting work on the project.

Id. at 924-25.

Finally, the County submitted a study prepared by Dr. Joe E. Feagin, comprised of interviews of 78 certified black-owned construction firms. *Id*. at 925. The interviewees reported similar instances of perceived discrimination, including: "difficulty in securing bonding and financing; slow payment by

general contractors; unfair performance evaluations that were tainted by racial stereotypes; difficulty in obtaining information from the County on contracting processes; and higher prices on equipment and supplies than were being charged to non-MBE/WBE firms." *Id.*

The Eleventh Circuit found that numerous black- and some female-owned construction firms in Dade County perceived that they were the victims of discrimination and two County employees also believed that discrimination could taint the County's construction contracting process. *Id.* However, such anecdotal evidence is helpful "only when it [is] combined with and reinforced by sufficiently probative statistical evidence." *Id.* In her plurality opinion in *Croson*, Justice O'Connor found that "evidence of a pattern of individual discriminatory acts can, *if supported by appropriate statistical proof*, lend support to a local government's determination that broader remedial relief is justified." *Id.*, *quoting Croson*, 488 U.S. at 509 (emphasis added by the Eleventh Circuit). Accordingly, the Eleventh Circuit held that "anecdotal evidence can play an important role in bolstering statistical evidence, but that only in the rare case will anecdotal evidence suffice standing alone." *Id.* at 925. The Eleventh Circuit also cited to opinions from the Third, Ninth and Tenth Circuits as supporting the same proposition. *Id.* at 926. The Eleventh Circuit affirmed the decision of the district court enjoining the continued operation of the MBE/WBE programs because they did not rest on a "constitutionally sufficient evidentiary foundation." *Id.*

Although the Eleventh Circuit determined that the MBE/WBE program did not survive constitutional muster due to the absence of a sufficient evidentiary foundation, the Eleventh Circuit proceeded with the second prong of the strict scrutiny analysis of determining whether the MBE/WBE programs were narrowly tailored (BBE and HBE programs) or substantially related (WBE program) to the legitimate government interest they purported to serve, *i.e.*, "remedying the effects of present and past discrimination against blacks, Hispanics, and women in the Dade County construction market." *Id.*

Narrow tailoring. "The essence of the 'narrowly tailored' inquiry is the notion that explicitly racial preferences … must only be a 'last resort' option." Id., quoting *Hayes v. North Side Law Enforcement Officers Ass'n*, 10 F.3d 207, 217 (4th Cir. 1993) and *citing Croson*, 488 U.S. at 519 (Kennedy, J., concurring in part and concurring in the judgment) ("[T]he strict scrutiny standard … forbids the use of even narrowly drawn racial classifications except as a last resort.").

The Eleventh Circuit has identified four factors to evaluate whether a race- or ethnicity-conscious affirmative action program is narrowly tailored: (1) "the necessity for the relief and the efficacy of alternative remedies; (2) the flexibility and duration of the relief; (3) the relationship of numerical goals to the relevant labor market; and (4) the impact of the relief on the rights of innocent third parties." *Id.* at 927, *citing Ensley Branch*, 31 F.3d at 1569. The four factors provide "a useful analytical structure." *Id.* at 927. The Eleventh Circuit focused only on the first factor in the present case "because that is where the County's MBE/WBE programs are most problematic." *Id.*

The Eleventh Circuit

> flatly reject[ed] the County's assertion that 'given a strong basis in evidence of a race-based problem, a race-based remedy is necessary.' That is simply not the law. If a race-neutral remedy is sufficient to cure a race-based problem, then a race-conscious remedy can never be narrowly tailored to that problem." *Id*., *citing Croson*, 488 U.S. at 507 (holding that affirmative action program was not narrowly tailored where "there does not appear to have been any consideration of the use of race-neutral means to increase minority business participation in city contracting") … Supreme Court decisions teach that a race-conscious remedy is not merely one of many equally acceptable medications the government may use to treat a race-based problem. Instead, it is the strongest of medicines, with many potential side effects, and must be reserved for those severe cases that are highly resistant to conventional treatment.

Id. at 927.

The Eleventh Circuit held that the County "clearly failed to give serious and good faith consideration to the use of race- and ethnicity-neutral measures." *Id*. Rather, the determination of the necessity to establish the MWBE programs was based upon a conclusory legislative statement as to its necessity, which in turn was based upon an "equally conclusory analysis" in the Brimmer study, and a report that the SBA only was able to direct 5 percent of SBA financing to black-owned businesses between 1968-1980. *Id*.

The County admitted, and the Eleventh Circuit concluded, that the County failed to give any consideration to any alternative to the HBE affirmative action program. *Id*. at 928. Moreover, the Eleventh Circuit found that the testimony of the County's own witnesses indicated the viability of race- and ethnicity-neutral measures to remedy many of the problems facing black- and Hispanic-owned construction firms. *Id*. The County employees identified problems, virtually all of which were related to the County's own processes and procedures, including: "the decentralized County contracting system, which affords a high level of discretion to County employees; the complexity of County contract specifications; difficulty in obtaining bonding; difficulty in obtaining financing; unnecessary bid restrictions; inefficient payment procedures; and insufficient or inefficient exchange of information." *Id*. The Eleventh Circuit found that the problems facing MBE/WBE contractors were "institutional barriers" to entry facing every new entrant into the construction market, and were perhaps affecting the MBE/WBE contractors disproportionately due to the "institutional youth" of black- and Hispanic-owned construction firms. *Id*. "It follows that those firms should be helped the most by dismantling those barriers, something the County could do at least in substantial part." *Id*.

The Eleventh Circuit noted that the race- and ethnicity-neutral options available to the County mirrored those available and cited by Justice O'Connor in *Croson*:

> [T]he city has at its disposal a whole array of race-neutral measures to increase the accessibility of city contracting opportunities to small entrepreneurs of all races. Simplification of bidding procedures, relaxation of bonding requirements, and training and financial aid for disadvantaged entrepreneurs of all races would open the public contracting market to all those who have suffered the effects of past societal discrimination and neglect … The city may also act to prohibit discrimination in the provision of credit or bonding by local suppliers and banks.

Id., *quoting Croson*, 488 U.S. at 509-10. The Eleventh Circuit found that except for some "half-hearted programs" consisting of "limited technical and financial aid that might benefit BBEs and HBEs," the County had not "seriously considered" or tried most of the race- and ethnicity-neutral alternatives available. *Id*. at 928. "Most notably … the County has not taken any action whatsoever to ferret out and respond to instances of discrimination if and when they have occurred in the County's own contracting process." *Id*.

The Eleventh Circuit found that the County had taken no steps to "inform, educate, discipline, or penalize" discriminatory misconduct by its own employees. *Id*. at 929. Nor had the County passed any local ordinances expressly prohibiting discrimination by local contractors, subcontractors, suppliers, bankers, or insurers. *Id*. "Instead of turning to race- and ethnicity-conscious remedies as a last resort, the County has turned to them as a first resort." Accordingly, the Eleventh Circuit held that even if the BBE and HBE programs were supported by the requisite evidentiary foundation, they violated the Equal Protection Clause because they were not narrowly tailored. *Id*.

Substantial relationship. The Eleventh Circuit held that due to the relaxed "substantial relationship" standard for gender-conscious programs, if the WBE program rested upon a sufficient evidentiary foundation, it could pass the substantial relationship requirement. *Id*. However, because it did not rest upon a sufficient evidentiary foundation, the WBE program could not pass constitutional muster. *Id*.

For all of the foregoing reasons, the Eleventh Circuit affirmed the decision of the district court declaring the MBE/WBE programs unconstitutional and enjoining their continued operation.

Recent District Court Decisions

12. H.B. Rowe Corp., Inc. v. W. Lyndo Tippett, North Carolina DOT, et al., 589 F. Supp.2d 587 (E.D.N.C. 2008), affirmed in part, reversed in part, and remanded, 615 F.3d 233 (4th Cir. 2010)

In *H.B. Rowe Company v. Tippett, North Carolina Department of Transportation, et al.* ("*Rowe*"), the United States District Court for the Eastern District of North Carolina, Western Division, heard a challenge to the State of North Carolina MBE and WBE Program, which is a State of North Carolina "affirmative action" program administered by the NCDOT. The NCDOT MWBE Program challenged in *Rowe* involves projects funded solely by the State of North Carolina and not funded by the USDOT. 589 F.Supp.2d 587.

Background. In this case plaintiff, a family-owned road construction business, bid on a NCDOT initiated state-funded project. NCDOT rejected plaintiff's bid in favor of the next low bid that had

proposed higher minority participation on the project as part of its bid. According to NCDOT, plaintiff's bid was rejected because of plaintiff's failure to demonstrate "good faith efforts" to obtain pre-designated levels of minority participation on the project.

As a prime contractor, plaintiff Rowe was obligated under the MWBE Program to either obtain participation of specified levels of MBE and WBE participation as subcontractors, or to demonstrate good faith efforts to do so. For this particular project, NCDOT had set MBE and WBE subcontractor participation goals of 10 percent and 5 percent, respectively. Plaintiff's bid included 6.6 percent WBE participation, but no MBE participation. The bid was rejected after a review of plaintiff's good faith efforts to obtain MBE participation. The next lowest bidder submitted a bid including 3.3 percent MBE participation and 9.3 percent WBE participation, and although not obtaining a specified level of MBE participation, it was determined to have made good faith efforts to do so. (Order of the District Court, dated March 29, 2007).

NCDOT's MWBE Program "largely mirrors" the Federal DBE Program, which NCDOT is required to comply with in awarding construction contracts that utilize Federal funds. (589 F.Supp.2d 587; Order of the District Court, dated September 28, 2007). Like the Federal DBE Program, under NCDOT's MWBE Program, the goals for minority and female participation are aspirational rather than mandatory. *Id*. An individual target for MBE participation was set for each project. *Id*.

Historically, NCDOT had engaged in several disparity studies. The most recent study was done in 2004. *Id*. The 2004 study, which followed the study in 1998, concluded that disparities in utilization of MBEs persist and that a basis remains for continuation of the MWBE Program. The new statute as revised was approved in 2006, which modified the previous MBE statute by eliminating the 10 percent and 5 percent goals and establishing a fixed expiration date of 2009.

Plaintiff filed its complaint in this case in 2003 against the NCDOT and individuals associated with the NCDOT, including the Secretary of NCDOT, W. Lyndo Tippett. In its complaint, plaintiff alleged that the MWBE statute for NCDOT was unconstitutional on its face and as applied. 589 F.Supp.2d 587.

March 29, 2007 Order of the District Court. The matter came before the district court initially on several motions, including the defendants' Motion to Dismiss or for Partial Summary Judgment, defendants' Motion to Dismiss the Claim for Mootness and plaintiff's Motion for Summary Judgment. The court in its October 2007 Order granted in part and denied in part defendants' Motion to Dismiss or for partial summary judgment; denied defendants' Motion to Dismiss the Claim for Mootness; and dismissed without prejudice plaintiff's Motion for Summary Judgment.

The court held the Eleventh Amendment to the United States Constitution bars plaintiff from obtaining any relief against defendant NCDOT, and from obtaining a retrospective damages award against any of the individual defendants in their official capacities. The court ruled that plaintiff's claims for relief against the NCDOT were barred by the Eleventh Amendment, and the NCDOT was dismissed from the case as a defendant. Plaintiff's claims for interest, actual damages, compensatory damages and punitive damages against the individual defendants sued in their official capacities also was held barred by the Eleventh Amendment and were dismissed. But, the court held that plaintiff was entitled to sue for an injunction to prevent state officers from violating a federal law, and under the *Ex Parte Young* exception, plaintiff's claim for declaratory and injunctive relief was

permitted to go forward as against the individual defendants who were acting in an official capacity with the NCDOT. The court also held that the individual defendants were entitled to qualified immunity, and therefore dismissed plaintiff's claim for money damages against the individual defendants in their individual capacities. Order of the District Court, dated March 29, 2007.

Defendants argued that the recent amendment to the MWBE statute rendered plaintiff's claim for declaratory injunctive relief moot. The new MWBE statute adopted in 2006, according to the court, does away with many of the alleged shortcomings argued by the plaintiff in this lawsuit. The court found the amended statute has a sunset date in 2009; specific aspirational participation goals by women and minorities are eliminated; defines "minority" as including only those racial groups which disparity studies identify as subject to underutilization in state road construction contracts; explicitly references the findings of the 2004 Disparity Study and requires similar studies to be conducted at least once every five years; and directs NCDOT to enact regulations targeting discrimination identified in the 2004 and future studies.

The court held, however, that the 2004 Disparity Study and amended MWBE statute do not remedy the primary problem which the plaintiff complained of: the use of remedial race- and gender- based preferences allegedly without valid evidence of past racial and gender discrimination. In that sense, the court held the amended MWBE statute continued to present a live case or controversy, and accordingly denied the defendants' Motion to Dismiss Claim for Mootness as to plaintiff's suit for prospective injunctive relief. Order of the District Court, dated March 29, 2007.

The court also held that since there had been no analysis of the MWBE statute apart from the briefs regarding mootness, plaintiff's pending Motion for Summary Judgment was dismissed without prejudice. Order of the District Court, dated March 29, 2007.

September 28, 2007 Order of the District Court. On September 28, 2007, the district court issued a new order in which it denied both the plaintiff's and the defendants' Motions for Summary Judgment. Plaintiff claimed that the 2004 Disparity Study is the sole basis of the MWBE statute, that the study is flawed, and therefore it does not satisfy the first prong of strict scrutiny review. Plaintiff also argued that the 2004 study tends to prove non-discrimination in the case of women; and finally the MWBE Program fails the second prong of strict scrutiny review in that it is not narrowly tailored.

The court found summary judgment was inappropriate for either party and that there are genuine issues of material fact for trial. The first and foremost issue of material fact, according to the court, was the adequacy of the 2004 Disparity Study as used to justify the MWBE Program. Therefore, because the court found there was a genuine issue of material fact regarding the 2004 Study, summary judgment was denied on this issue.

The court also held there was confusion as to the basis of the MWBE Program, and whether it was based solely on the 2004 Study or also on the 1993 and 1998 Disparity Studies. Therefore, the court held a genuine issue of material fact existed on this issue and denied summary judgment. Order of the District Court, dated September 28, 2007.

December 9, 2008 Order of the District Court (589 F.Supp.2d 587). The district court on December 9, 2008, after a bench trial, issued an Order that found as a fact and concluded as a matter of law that plaintiff failed to satisfy its burden of proof that the North Carolina Minority and

Women's Business Enterprise program, enacted by the state legislature to affect the awarding of contracts and subcontracts in state highway construction, violated the United States Constitution.

Plaintiff, in its complaint filed against the NCDOT alleged that N.C. Gen. St. § 136-28.4 is unconstitutional on its face and as applied, and that the NCDOT while administering the MWBE program violated plaintiff's rights under the federal law and the United States Constitution. Plaintiff requested a declaratory judgment that the MWBE program is invalid and sought actual and punitive damages.

As a prime contractor, plaintiff was obligated under the MWBE program to either obtain participation of specified levels of MBE and WBE subcontractors, or to demonstrate that good faith efforts were made to do so. Following a review of plaintiff's good faith efforts to obtain minority participation on the particular contract that was the subject of plaintiff's bid, the bid was rejected. Plaintiff's bid was rejected in favor of the next lowest bid, which had proposed higher minority participation on the project as part of its bid. According to NCDOT, plaintiff's bid was rejected because of plaintiff's failure to demonstrate good faith efforts to obtain pre-designated levels of minority participation on the project. 589 F.Supp.2d 587.

North Carolina's MWBE program. The MWBE program was implemented following amendments to N.C. Gen. Stat. §136-28.4. Pursuant to the directives of the statute, the NCDOT promulgated regulations governing administration of the MWBE program. See N.C. Admin. Code tit. 19A, § 2D.1101, et seq. The regulations had been amended several times and provide that NCDOT shall ensure that MBEs and WBEs have the maximum opportunity to participate in the performance of contracts financed with non-federal funds. N.C. Admin. Code Tit. 19A § 2D.1101.

North Carolina's MWBE program, which affected only highway bids and contracts funded solely with state money, according to the district court, largely mirrored the Federal DBE Program which NCDOT is required to comply with in awarding construction contracts that utilize federal funds. 589 F.Supp.2d 587. Like the Federal DBE Program, under North Carolina's MWBE program, the targets for minority and female participation were aspirational rather than mandatory, and individual targets for disadvantaged business participation were set for each individual project. N.C. Admin. Code tit. 19A § 2D.1108. In determining what level of MBE and WBE participation was appropriate for each project, NCDOT would take into account "the approximate dollar value of the contract, the geographical location of the proposed work, a number of the eligible funds in the geographical area, and the anticipated value of the items of work to be included in the contract." *Id.* NCDOT would also consider "the annual goals mandated by Congress and the North Carolina General Assembly." *Id.*

A firm could be certified as a MBE or WBE by showing NCDOT that it is "owner controlled by one or more socially and economically disadvantaged individuals." NC Admin. Code tit. 1980, § 2D.1102.

The district court stated the MWBE program did not directly discriminate in favor of minority and women contractors, but rather "encouraged prime contractors to favor MBEs and WBEs in subcontracting before submitting bids to NCDOT." 589 F.Supp.2d 587. In determining whether the lowest bidder is "responsible," NCDOT would consider whether the bidder obtained the level of certified MBE and WBE participation previously specified in the NCDOT project proposal. If not,

NCDOT would consider whether the bidder made good faith efforts to solicit MBE and WBE participation. N.C .Admin. Code tit. 19A§ 2D.1108.

There were multiple studies produced and presented to the North Carolina General Assembly in the years 1993, 1998 and 2004. The 1998 and 2004 studies concluded that disparities in the utilization of minority and women contractors persist, and that there remains a basis for continuation of the MWBE program. The MWBE program as amended after the 2004 study includes provisions that eliminated the 10 percent and 5 percent goals and instead replaced them with contract-specific participation goals created by NCDOT; established a sunset provision that has the statute expiring on August 31, 2009; and provides reliance on a disparity study produced in 2004.

The MWBE program, as it stood at the time of this decision, provides that NCDOT "dictates to prime contractors the express goal of MBE and WBE subcontractors to be used on a given project. However, instead of the state hiring the MBE and WBE subcontractors itself, the NCDOT makes the prime contractor solely responsible for vetting and hiring these subcontractors. If a prime contractor fails to hire the goal amount, it must submit efforts of 'good faith' attempts to do so." 589 F.Supp.2d 587.

Compelling interest. The district court held that NCDOT established a compelling governmental interest to have the MWBE program. The court noted that the United States Supreme Court in Croson made clear that a state legislature has a compelling interest in eradicating and remedying private discrimination in the private subcontracting inherent in the letting of road construction contracts. 589 F.Supp.2d 587*, citing Croson*, 488 U.S. at 492. The district court found that the North Carolina Legislature established it relied upon a strong basis of evidence in concluding that prior race discrimination in North Carolina's road construction industry existed so as to require remedial action.

The court held that the 2004 Disparity Study demonstrated the existence of previous discrimination in the specific industry and locality at issue. The court stated that disparity ratios provided for in the 2004 Disparity Study highlighted the underutilization of MBEs by prime contractors bidding on state funded highway projects. In addition, the court found that evidence relied upon by the legislature demonstrated a dramatic decline in the utilization of MBEs during the program's suspension in 1991. The court also found that anecdotal support relied upon by the legislature confirmed and reinforced the general data demonstrating the underutilization of MBEs. The court held that the NCDOT established that, "based upon a clear and strong inference raised by this Study, they concluded minority contractors suffer from the lingering effects of racial discrimination." 589 F.Supp.2d 587.

With regard to WBEs, the court applied a different standard of review. The court held the legislative scheme as it relates to MWBEs must serve an important governmental interest and must be substantially related to the achievement of those objectives. The court found that NCDOT established an important governmental interest. The 2004 Disparity Study provided that the average contracts awarded WBEs are significantly smaller than those awarded non-WBEs. The court held that NCDOT established based upon a clear and strong inference raised by the Study, women contractors suffer from past gender discrimination in the road construction industry.

Narrowly tailored. The district court noted that the Fourth Circuit of Appeals lists a number of factors to consider in analyzing a statute for narrow tailoring: (1) the necessity of the policy and the efficacy of alternative race neutral policies; (2) the planned duration of the policy; (3) the relationship

between the numerical goal and the percentage of minority group members in the relevant population; (4) the flexibility of the policy, including the provision of waivers if the goal cannot be met; and (5) the burden of the policy on innocent third parties. 589 F.Supp.2d 587, *quoting Belk v. Charlotte-Mecklenburg Board of Education*, 269 F.3d 305, 344 (4th Cir. 2001).

The district court held that the legislative scheme in N.C. Gen. Stat. § 136-28.4 is narrowly tailored to remedy private discrimination of minorities and women in the private subcontracting inherent in the letting of road construction contracts. The district court's analysis focused on narrowly tailoring factors (2) and (4) above, namely the duration of the policy and the flexibility of the policy. With respect to the former, the court held the legislative scheme provides the program be reviewed at least every five years to revisit the issue of utilization of MWBEs in the road construction industry. N.C. Gen. Stat. §136-28.4(b). Further, the legislative scheme includes a sunset provision so that the program will expire on August 31, 2009, unless renewed by an act of the legislature. *Id*. at § 136-28.4(e). The court held these provisions ensured the legislative scheme last no longer than necessary.

The court also found that the legislative scheme enacted by the North Carolina legislature provides flexibility insofar as the participation goals for a given contract or determined on a project by project basis. § 136-28.4(b)(1). Additionally, the court found the legislative scheme in question is not overbroad because the statute applies only to "those racial or ethnicity classifications identified by a study conducted in accordance with this section that had been subjected to discrimination in a relevant marketplace and that had been adversely affected in their ability to obtain contracts with the Department." § 136-28.4(c)(2). The court found that plaintiff failed to provide any evidence that indicates minorities from non-relevant racial groups had been awarded contracts as a result of the statute.

The court held that the legislative scheme is narrowly tailored to remedy private discrimination of minorities and women in the private subcontracting inherent in the letting of road construction contracts, and therefore found that § 136-28.4 is constitutional.

The decision of the district court was appealed to the United States Court of Appeals for the Fourth Circuit, which affirmed in part and reversed in part the decision of the district court. *See* 615 F3d 233 (4th Cir. 2010), discussed above.

13. Thomas v. City of Saint Paul, 526 F. Supp.2d 959 (D. Minn 2007), affirmed, 321 Fed. Appx. 541, 2009 WL 777932 (8th Cir. March 26, 2009) (unpublished opinion), cert. denied, 130 S.Ct. 408 (2009).

In *Thomas v. City of Saint Paul*, the plaintiffs are African American business owners who brought this lawsuit claiming that the City of Saint Paul, Minnesota discriminated against them in awarding publicly-funded contracts. The City moved for summary judgment, which the United States District Court granted and issued an order dismissing the plaintiff's lawsuit in December 2007.

The background of the case involves the adoption by the City of Saint Paul of a Vendor Outreach Program ("VOP") that was designed to assist minority and other small business owners in competing for City contracts. Plaintiffs were VOP-certified minority business owners. Plaintiffs contended that the City engaged in racially discriminatory illegal conduct in awarding City contracts for publicly-funded projects. Plaintiff Thomas claimed that the City denied him opportunities to work on projects because of his race arguing that the City failed to invite him to bid on certain projects, the City failed

to award him contracts and the fact independent developers had not contracted with his company. 526 F. Supp.2d at 962. The City contended that Thomas was provided opportunities to bid for the City's work.

Plaintiff Brian Conover owned a trucking firm, and he claimed that none of his bids as a subcontractor on 22 different projects to various independent developers were accepted. 526 F. Supp.2d at 962. The court found that after years of discovery, plaintiff Conover offered no admissible evidence to support his claim, had not identified the subcontractors whose bids were accepted, and did not offer any comparison showing the accepted bid and the bid he submitted. *Id.* Plaintiff Conover also complained that he received bidding invitations only a few days before a bid was due, which did not allow him adequate time to prepare a competitive bid. *Id.* The court found, however, he failed to identify any particular project for which he had only a single day of bid, and did not identify any similarly situated person of any race who was afforded a longer period of time in which to submit a bid. *Id.* at 963. Plaintiff Newell claimed he submitted numerous bids on the City's projects all of which were rejected. *Id.* The court found, however, that he provided no specifics about why he did not receive the work. *Id.*

The VOP. Under the VOP, the City sets annual bench marks or levels of participation for the targeted minorities groups. *Id.* at 963. The VOP prohibits quotas and imposes various "good faith" requirements on prime contractors who bid for City projects. *Id.* at 964. In particular, the VOP requires that when a prime contractor rejects a bid from a VOP-certified business, the contractor must give the City its basis for the rejection, and evidence that the rejection was justified. Id. The VOP further imposes obligations on the City with respect to vendor contracts. Id. The court found the City must seek where possible and lawful to award a portion of vendor contracts to VOP-certified businesses. *Id.* The City contract manager must solicit these bids by phone, advertisement in a local newspaper or other means. Where applicable, the contract manager may assist interested VOP participants in obtaining bonds, lines of credit or insurance required to perform under the contract. *Id.* The VOP ordinance provides that when the contract manager engages in one or more possible outreach efforts, he or she is in compliance with the ordinance. *Id.*

Analysis and Order of the Court. The district court found that the City is entitled to summary judgment because plaintiffs lack standing to bring these claims and that no genuine issue of material fact remains. *Id.* at 965. The court held that the plaintiffs had no standing to challenge the VOP because they failed to show they were deprived of an opportunity to compete, or that their inability to obtain any contract resulted from an act of discrimination. *Id.* The court found they failed to show any instance in which their race was a determinant in the denial of any contract. *Id.* at 966. As a result, the court held plaintiffs failed to demonstrate the City engaged in discriminatory conduct or policy which prevented plaintiffs from competing. *Id.* at 965-966.

The court held that in the absence of any showing of intentional discrimination based on race, the mere fact the City did not award any contracts to plaintiffs does not furnish that causal nexus necessary to establish standing. *Id.* at 966. The court held the law does not require the City to voluntarily adopt "aggressive race-based affirmative action programs" in order to award specific groups publicly-funded contracts. *Id.* at 966. The court found that plaintiffs had failed to show a violation of the VOP ordinance, or any illegal policy or action on the part of the City. *Id.*

The court stated that the plaintiffs must identify a discriminatory policy in effect. *Id.* at 966. The court noted, for example, even assuming the City failed to give plaintiffs more than one day's notice to enter a bid, such a failure is not, per se, illegal. *Id*. The court found the plaintiffs offered no evidence that anyone else of any other race received an earlier notice, or that he was given this allegedly tardy notice as a result of his race. *Id*.

The court concluded that even if plaintiffs may not have been hired as a subcontractor to work for prime contractors receiving City contracts, these were independent developers and the City is not required to defend the alleged bad acts of others. *Id.* Therefore, the court held plaintiffs had no standing to challenge the VOP. *Id.* at 966.

Plaintiff's claims. The court found that even assuming plaintiffs possessed standing, they failed to establish facts which demonstrated a need for a trial, primarily because each theory of recovery is viable only if the City "intentionally" treated plaintiffs unfavorably because of their race. *Id*. at 967. The court held to establish a prima facie violation of the equal protection clause, there must be state action. *Id.* Plaintiffs must offer facts and evidence that constitute proof of "racially discriminatory intent or purpose." *Id*. at 967. Here, the court found that plaintiff failed to allege any single instance showing the City "intentionally" rejected VOP bids based on their race. *Id*.

The court also found that plaintiffs offered no evidence of a specific time when any one of them submitted the lowest bid for a contract or a subcontract, or showed any case where their bids were rejected on the basis of race. *Id*. The court held the alleged failure to place minority contractors in a preferred position, without more, is insufficient to support a finding that the City failed to treat them equally based upon their race. *Id*.

The City rejected the plaintiff's claims of discrimination because the plaintiffs did not establish by evidence that the City "intentionally" rejected their bid due to race or that the City "intentionally" discriminated against these plaintiffs. *Id*. at 967-968. The court held that the plaintiffs did not establish a single instance showing the City deprived them of their rights, and the plaintiffs did not produce evidence of a "discriminatory motive." *Id.* at 968. The court concluded that plaintiffs had failed to show that the City's actions were "racially motivated." *Id.*

The Eighth Circuit Court of Appeals affirmed the ruling of the district court. *Thomas v. City of Saint Paul*, 2009 WL 777932 (8th Cir. 2009)(unpublished opinion). The Eighth Circuit affirmed based on the decision of the district court and finding no reversible error.

14. Thompson Building Wrecking Co. v. Augusta, Georgia, No. 1:07CV019, 2007 WL 926153 (S.D. Ga. Mar. 14, 2007)(Slip. Op.)

This case considered the validity of the City of Augusta's local minority DBE program. The district court enjoined the City from favoring any contract bid on the basis of racial classification and based its decision principally upon the outdated and insufficient data proffered by the City in support of its program. 2007 WL 926153 at *9-10.

The City of Augusta enacted a local DBE program based upon the results of a disparity study completed in 1994. The disparity study examined the disparity in socioeconomic status among races, compared black-owned businesses in Augusta with those in other regions and those owned by other

racial groups, examined "Georgia's racist history" in contracting and procurement, and examined certain data related to Augusta's contracting and procurement. *Id.* at *1-4. The plaintiff contractors and subcontractors challenged the constitutionality of the DBE program and sought to extend a temporary injunction enjoining the City's implementation of racial preferences in public bidding and procurement.

The City defended the DBE program arguing that it did not utilize racial classifications because it only required vendors to make a "good faith effort" to ensure DBE participation. *Id.* at *6. The court rejected this argument noting that bidders were required to submit a "Proposed DBE Participation" form and that bids containing DBE participation were treated more favorably than those bids without DBE participation. The court stated: "Because a person's business can qualify for the favorable treatment based on that person's race, while a similarly situated person of another race would not qualify, the program contains a racial classification." *Id.*

The court noted that the DBE program harmed subcontractors in two ways: first, because prime contractors will discriminate between DBE and non-DBE subcontractors and a bid with a DBE subcontractor would be treated more favorably; and second, because the City would favor a bid containing DBE participation over an equal or even superior bid containing no DBE participation. *Id.*

The court applied the strict scrutiny standard set forth in *Croson* and *Engineering Contractors Association* to determine whether the City had a compelling interest for its program and whether the program was narrowly tailored to that end. The court noted that pursuant to *Croson*, the City would have a compelling interest in assuring that tax dollars would not perpetuate private prejudice. But, the court found (*citing* to *Croson*), that a state or local government must identify that discrimination, "public or private, with some specificity before they may use race-conscious relief." The court cited the Eleventh Circuit's position that "'gross statistical disparities' between the proportion of minorities hired by the public employer and the proportion of minorities willing and able to work" may justify an affirmative action program. *Id.* at *7. The court also stated that anecdotal evidence is relevant to the analysis.

The court determined that while the City's disparity study showed some statistical disparities buttressed by anecdotal evidence, the study suffered from multiple issues. *Id.* at *7-8. Specifically, the court found that those portions of the study examining discrimination outside the area of subcontracting (*e.g.*, socioeconomic status of racial groups in the Augusta area) were irrelevant for purposes of showing a compelling interest. The court also cited the failure of the study to differentiate between different minority races as well as the improper aggregation of race- and gender-based discrimination referred to as Simpson's Paradox.

The court assumed for purposes of its analysis that the City could show a compelling interest but concluded that the program was not narrowly tailored and thus could not satisfy strict scrutiny. The court found that it need look no further beyond the fact of the thirteen-year duration of the program absent further investigation, and the absence of a sunset or expiration provision, to conclude that the DBE program was not narrowly tailored. *Id.* at *8. Noting that affirmative action is permitted only sparingly, the court found: "[i]t would be impossible for Augusta to argue that, 13 years after last studying the issue, racial discrimination is so rampant in the Augusta contracting industry that the City must affirmatively act to avoid being complicit." *Id.* The court held in conclusion, that the

plaintiffs were "substantially likely to succeed in proving that, when the City requests bids with minority participation and in fact favors bids with such, the plaintiffs will suffer racial discrimination in violation of the Equal Protection Clause." *Id*. at *9.

In a subsequent Order dated September 5, 2007, the court denied the City's motion to continue plaintiff's Motion for Summary Judgment, denied the City's Rule 12(b)(6) motion to dismiss, and stayed the action for 30 days pending mediation between the parties. Importantly, in this Order, the court reiterated that the female- and locally-owned business components of the program (challenged in plaintiff's Motion for Summary Judgment) would be subject to intermediate scrutiny and rational basis scrutiny, respectively. The court also reiterated its rejection of the City's challenge to the plaintiffs' standing. The court noted that under *Adarand*, preventing a contractor from competing on an equal footing satisfies the particularized injury prong of standing. And showing that the contractor will sometime in the future bid on a City contract "that offers financial incentives to a prime contractor for hiring disadvantaged subcontractors" satisfies the second requirement that the particularized injury be actual or imminent. Accordingly, the court concluded that the plaintiffs have standing to pursue this action.

15. Hershell Gill Consulting Engineers, Inc. v. Miami-Dade County, 333 F. Supp.2d 1305 (S.D. Fla. 2004)

The decision in *Hershell Gill Consulting Engineers, Inc. v. Miami-Dade County*, is significant to the disparity study because it applied and followed the *Engineering Contractors Association* decision in the context of contracting and procurement for goods and services (including architect and engineer services). Many of the other cases focused on construction, and thus *Hershell Gill* is instructive as to the analysis relating to architect and engineering services. The decision in *Hershell Gill* also involved a district court in the Eleventh Circuit imposing compensatory and punitive damages upon individual County Commissioners due to the district court's finding of their willful failure to abrogate an unconstitutional MBE/WBE Program. In addition, the case is noteworthy because the district court refused to follow the 2003 Tenth Circuit Court of Appeals decision in *Concrete Works of Colorado, Inc. v. City and County of Denver*, 321 .3d 950 (10th Cir. 2003). *See* discussion, *infra*.

Six years after the decision in *Engineering Contractors Association*, two white male-owned engineering firms (the "plaintiffs") brought suit against Engineering Contractors Association (the "County"), the former County Manager, and various current County Commissioners (the "Commissioners") in their official and personal capacities (collectively the "defendants"), seeking to enjoin the same "participation goals" in the same MWBE program deemed to violate the Fourteenth Amendment in the earlier case. 333 F. Supp. 1305, 1310 (S.D. Fla. 2004). After the Eleventh Circuit's decision in *Engineering Contractors Association* striking down the MWBE programs as applied to construction contracts, the County enacted a Community Small Business Enterprise ("CSBE") program for construction contracts, "but continued to apply racial, ethnic, and gender criteria to its purchases of goods and services in other areas, including its procurement of A&E services." *Id*. at 1311.

The plaintiffs brought suit challenging the Black Business Enterprise (BBE) program, the Hispanic Business Enterprise (HBE) program, and the Women Business Enterprise (WBE) program (collectively "MBE/WBE"). *Id*. The MBE/WBE programs applied to A&E contracts in excess of $25,000. *Id*. at 1312. The County established five "contract measures" to reach the participation goals: (1) set asides, (2) subcontractor goals, (3) project goals, (4) bid preferences, and (5) selection factors. *Id*. Once a contract was identified as covered by a participation goal, a review committee

would determine whether a contract measure should be utilized. *Id.* The County was required to review the efficacy of the MBE/WBE programs annually, and reevaluated the continuing viability of the MBE/WBE programs every five years. *Id.* at 1313. However, the district court found "the participation goals for the three MBE/WBE programs challenged … remained unchanged since 1994." *Id.*

In 1998, counsel for plaintiffs contacted the County Commissioners requesting the discontinuation of contract measures on A&E contracts. *Id*. at 1314. Upon request of the Commissioners, the county manager then made two reports (an original and a follow-up) measuring parity in terms of dollars awarded and dollars paid in the areas of A&E for blacks, Hispanics, and women, and concluded both times that the "County has reached parity for black, Hispanic, and Women-owned firms in the areas of [A&E] services." The final report further stated "Based on all the analyses that have been performed, the County does not have a basis for the establishment of participation goals which would allow staff to apply contract measures." *Id.* at 1315. The district court also found that the Commissioners were informed that "there was even less evidence to support [the MBE/WBE] programs as applied to architects and engineers then there was in contract construction." *Id*. Nonetheless, the Commissioners voted to continue the MBE/WBE participation goals at their previous levels. *Id.*

In May of 2000 (18 months after the lawsuit was filed), the County commissioned Dr. Manuel J. Carvajal, an econometrician, to study architects and engineers in the county. His final report had four parts:

(1) data identification and collection of methodology for displaying the research results; (2) presentation and discussion of tables pertaining to architecture, civil engineering, structural engineering, and awards of contracts in those areas; (3) analysis of the structure and empirical estimates of various sets of regression equations, the calculation of corresponding indices, and an assessment of their importance; and (4) a conclusion that there is discrimination against women and Hispanics — but not against blacks — in the fields of architecture and engineering.

Id. The district court issued a preliminary injunction enjoining the use of the MBE/WBE programs for A&E contracts, pending the United States Supreme Court decisions in *Gratz v. Bollinger*, 539 U.S. 244 (2003) and *Grutter v. Bollinger*, 539 U.S. 306 (2003). *Id*. at 1316.

The court considered whether the MBE/WBE programs were violative of Title VII of the Civil Rights Act, and whether the County and the County Commissioners were liable for compensatory and punitive damages.

The district court found that the Supreme Court decisions in *Gratz* and *Grutter* did not alter the constitutional analysis as set forth in *Adarand* and *Croson*. *Id.* at 1317. Accordingly, the race- and ethnicity-based classifications were subject to strict scrutiny, meaning the County must present "a strong basis of evidence" indicating the MBE/WBE program was necessary and that it was narrowly tailored to its purported purpose. *Id.* at 1316. The gender-based classifications were subject to intermediate scrutiny, requiring the County to show the "gender-based classification serves an important governmental objective, and that it is substantially related to the achievement of that objective." *Id.* at 1317 (internal citations omitted). The court found that the proponent of a gender-based affirmative action program must present "sufficient probative evidence" of discrimination. *Id.*

(internal citations omitted). The court found that under the intermediate scrutiny analysis, the County must (1) demonstrate past discrimination against women but not necessarily at the hands of the County, and (2) that the gender-conscious affirmative action program need not be used only as a "last resort." *Id.*

The County presented both statistical and anecdotal evidence. *Id.* at 1318. The statistical evidence consisted of Dr. Carvajal's report, most of which consisted of "post-enactment" evidence. *Id.* Dr. Carvajal's analysis sought to discover the existence of racial, ethnic and gender disparities in the A&E industry, and then to determine whether any such disparities could be attributed to discrimination. *Id.* The study used four data sets: three were designed to establish the marketplace availability of firms (architecture, structural engineering, and civil engineering), and the fourth focused on awards issued by the County. *Id.* Dr. Carvajal used the phone book, a list compiled by infoUSA, and a list of firms registered for technical certification with the County's Department of Public Works to compile a list of the "universe" of firms competing in the market. *Id.* For the architectural firms only, he also used a list of firms that had been issued an architecture professional license. *Id.*

Dr. Carvajal then conducted a phone survey of the identified firms. Based on his data, Dr. Carvajal concluded that disparities existed between the percentage of A&E firms owned by blacks, Hispanics, and women, and the percentage of annual business they received. *Id.* Dr. Carvajal conducted regression analyses "in order to determine the effect a firm owner's gender or race had on certain dependent variables." *Id.* Dr. Carvajal used the firm's annual volume of business as a dependent variable and determined the disparities were due in each case to the firm's gender and/or ethnic classification. *Id.* at 1320. He also performed variants to the equations including: (1) using certification rather than survey data for the experience / capacity indicators, (2) with the outliers deleted, (3) with publicly-owned firms deleted, (4) with the dummy variables reversed, and (5) using only currently certified firms." *Id.* Dr. Carvajal's results remained substantially unchanged. *Id.*

Based on his analysis of the marketplace data, Dr. Carvajal concluded that the "gross statistical disparities" in the annual business volume for Hispanic- and women-owned firms could be attributed to discrimination; he "did not find sufficient evidence of discrimination against blacks." *Id.*

The court held that Dr. Carvajal's study constituted neither a "strong basis in evidence" of discrimination necessary to justify race- and ethnicity-conscious measures, nor did it constitute "sufficient probative evidence" necessary to justify the gender-conscious measures. *Id.* The court made an initial finding that no disparity existed to indicate underutilization of MBE/WBEs in the award of A&E contracts by the County, nor was there underutilization of MBE/WBEs in the contracts they were awarded. *Id.* The court found that an analysis of the award data indicated, "[i]f anything, the data indicates an overutilization of minority-owned firms by the County in relation to their numbers in the marketplace." *Id.*

With respect to the marketplace data, the County conceded that there was insufficient evidence of discrimination against blacks to support the BBE program. *Id.* at 1321. With respect to the marketplace data for Hispanics and women, the court found it "unreliable and inaccurate" for three reasons: (1) the data failed to properly measure the geographic market, (2) the data failed to properly measure the product market, and (3) the marketplace survey was unreliable. *Id.* at 1321-25.

The court ruled that it would not follow the Tenth Circuit decision of *Concrete Works of Colorado, Inc. v. City and County of Denver*, 321 F.3d 950 (10th Cir. 2003), as the burden of proof enunciated by the Tenth Circuit conflicts with that of the Eleventh Circuit, and the "Tenth Circuit's decision is flawed for the reasons articulated by Justice Scalia in his dissent from the denial of certiorari." *Id*. at 1325 (internal citations omitted).

The defendant intervenors presented anecdotal evidence pertaining only to discrimination against women in the County's A&E industry. *Id*. The anecdotal evidence consisted of the testimony of three A&E professional women, "nearly all" of which was related to discrimination in the award of County contracts. *Id.* at 1326. However, the district court found that the anecdotal evidence contradicted Dr. Carvajal's study indicating that no disparity existed with respect to the award of County A&E contracts. *Id.*

The court quoted the Eleventh Circuit in *Engineering Contractors Association* for the proposition "that only in the rare case will anecdotal evidence suffice standing alone." *Id*. (internal citations omitted). The court held that "[t]his is not one of those rare cases." The district court concluded that the statistical evidence was "unreliable and fail[ed] to establish the existence of discrimination," and the anecdotal evidence was insufficient as it did not even reach the level of anecdotal evidence in *Engineering Contractors Association* where the County employees themselves testified. *Id*.

The court made an initial finding that a number of minority groups provided preferential treatment were in fact majorities in the County in terms of population, voting capacity, and representation on the County Commission. *Id.* at 1326-1329. For purposes only of conducting the strict scrutiny analysis, the court then assumed that Dr. Carvajal's report demonstrated discrimination against Hispanics (note the County had conceded it had insufficient evidence of discrimination against blacks) and sought to determine whether the HBE program was narrowly tailored to remedying that discrimination. *Id.* at 1330. However, the court found that because the study failed to "identify who is engaging in the discrimination, what form the discrimination might take, at what stage in the process it is taking place, or how the discrimination is accomplished … it is virtually impossible to narrowly tailor any remedy, and the HBE program fails on this fact alone." *Id*.

The court found that even after the County Managers informed the Commissioners that the County had reached parity in the A&E industry, the Commissioners declined to enact a CSBE ordinance, a race-neutral measure utilized in the construction industry after *Engineering Contractors Association. Id*. Instead, the Commissioners voted to continue the HBE program. *Id.* The court held that the County's failure to even explore a program similar to the CSBE ordinance indicated that the HBE program was not narrowly tailored. *Id*. at 1331.

The court also found that the County enacted a broad anti-discrimination ordinance imposing harsh penalties for a violation thereof. *Id*. However, "not a single witness at trial knew of any instance of a complaint being brought under this ordinance concerning the A&E industry," leading the court to conclude that the ordinance was either not being enforced, or no discrimination existed. *Id*. Under either scenario, the HBE program could not be narrowly tailored. *Id*.

The court found the waiver provisions in the HBE program inflexible in practice. *Id.* Additionally, the court found the County had failed to comply with the provisions in the HBE program requiring adjustment of participation goals based on annual studies, because the County had not in fact

conducted annual studies for several years. *Id*. The court found this even "more problematic" because the HBE program did not have a built-in durational limit, and thus blatantly violated Supreme Court jurisprudence requiring that racial and ethnic preferences "must be limited in time." *Id*. at 1332, *citing Grutter*, 123 S. Ct. at 2346. For the foregoing reasons, the court concluded the HBE program was not narrowly tailored. *Id*. at 1332.

With respect to the WBE program, the court found that "the failure of the County to identify who is discriminating and where in the process the discrimination is taking place indicates (though not conclusively) that the WBE program is not substantially related to eliminating that discrimination." *Id*. at 1333. The court found that the existence of the anti-discrimination ordinance, the refusal to enact a small business enterprise ordinance, and the inflexibility in setting the participation goals rendered the WBE program unable to satisfy the substantial relationship test. *Id*.

The court held that the County was liable for any compensatory damages. *Id*. at 1333-34. The court held that the Commissioners had absolute immunity for their legislative actions; however, they were not entitled to qualified immunity for their actions in voting to apply the race-, ethnicity-, and gender-conscious measures of the MBE/WBE programs if their actions violated "clearly established statutory or constitutional rights of which a reasonable person would have known … Accordingly, the question is whether the state of the law at the time the Commissioners voted to apply [race-, ethnicity-, and gender-conscious measures] gave them 'fair warning' that their actions were unconstitutional. " *Id*. at 1335-36 (internal citations omitted).

The court held that the Commissioners were not entitled to qualified immunity because they "had before them at least three cases that gave them fair warning that their application of the MBE/WBE programs … were unconstitutional: *Croson*, *Adarand* and [*Engineering Contractors Association*]." *Id*. at 1137. The court found that the Commissioners voted to apply the contract measures after the Supreme Court decided both *Croson* and *Adarand*. *Id*. Moreover, the Eleventh Circuit had already struck down the construction provisions of the same MBE/WBE programs. *Id*. Thus, the case law was "clearly established" and gave the Commissioners fair warning that the MBE/WBE programs were unconstitutional. *Id*.

The court also found the Commissioners had specific information from the County Manager and other internal studies indicating the problems with the MBE/WBE programs and indicating that parity had been achieved. *Id*. at 1338. Additionally, the Commissioners did not conduct the annual studies mandated by the MBE/WBE ordinance itself. *Id*. For all the foregoing reasons, the court held the Commissioners were subject to individual liability for any compensatory and punitive damages.

The district court enjoined the County, the Commissioners, and the County Manager from using, or requiring the use of, gender, racial, or ethnic criteria in deciding (1) whether a response to an RFP submitted for A&E work is responsive, (2) whether such a response will be considered, and (3) whether a contract will be awarded to a consultant submitting such a response. The court awarded the plaintiffs $100 each in nominal damages and reasonable attorneys' fees and costs, for which it held the County and the Commissioners jointly and severally liable.

16. Florida A.G.C. Council, Inc. v. State of Florida, 303 F. Supp.2d 1307 (N.D. Fla. 2004)

This case is instructive to the disparity study as to the manner in which district courts within the Eleventh Circuit are interpreting and applying *Engineering Contractors Association*. It is also instructive in terms of the type of legislation to be considered by the local and state governments as to what the courts consider to be a "race-conscious" program and/or legislation, as well as to the significance of the implementation of the legislation to the analysis.

The plaintiffs, A.G.C. Council, Inc. and the South Florida Chapter of the Associated General Contractors brought this case challenging the constitutionality of certain provisions of a Florida statute (Section 287.09451, *et seq.*). The plaintiffs contended that the statute violated the Equal Protection Clause of the Fourteenth Amendment by instituting race- and gender-conscious "preferences" in order to increase the numeric representation of "MBEs" in certain industries.

According to the court, the Florida Statute enacted race-conscious and gender-conscious remedial programs to ensure minority participation in state contracts for the purchase of commodities and in construction contracts. The State created the Office of Supplier Diversity ("OSD") to assist MBEs to become suppliers of commodities, services and construction to the state government. The OSD had certain responsibilities, including adopting rules meant to assess whether state agencies have made good faith efforts to solicit business from MBEs, and to monitor whether contractors have made good faith efforts to comply with the objective of greater overall MBE participation.

The statute enumerated measures that contractors should undertake, such as minority-centered recruitment in advertising as a means of advancing the statute's purpose. The statute provided that each State agency is "encouraged" to spend 21 percent of the monies actually expended for construction contracts, 25 percent of the monies actually expended for architectural and engineering contracts, 24 percent of the monies actually expended for commodities and 50.5 percent of the monies actually expended for contractual services during the fiscal year for the purpose of entering into contracts with certified MBEs. The statute also provided that state agencies are allowed to allocate certain percentages for black Americans, Hispanic Americans and for American women, and the goals are broken down by construction contracts, architectural and engineering contracts, commodities and contractual services.

The State took the position that the spending goals were "precatory." The court found that the plaintiffs had standing to maintain the action and to pursue prospective relief. The court held that the statute was unconstitutional based on the finding that the spending goals were not narrowly tailored to achieve a governmental interest. The court did not specifically address whether the articulated reasons for the goals contained in the statute had sufficient evidence, but instead found that the articulated reason would, "if true," constitute a compelling governmental interest necessitating race-conscious remedies. Rather than explore the evidence, the court focused on the narrowly tailored requirement and held that it was not satisfied by the State.

The court found that there was no evidence in the record that the State contemplated race-neutral means to accomplish the objectives set forth in Section 287.09451 *et seq.*, such as "'simplification of bidding procedures, relaxation of bonding requirements, training or financial aid for disadvantaged entrepreneurs of all races [which] would open the public contracting market to all those who have

suffered the effects of past discrimination.'" *Florida A.G.C. Council*, 303 F.Supp.2d at 1315, *quoting Eng'g Contractors Ass'n*, 122 F.3d at 928, *quoting Croson*, 488 U.S. at 509-10.

The court noted that defendants did not seem to disagree with the report issued by the State of Florida Senate that concluded there was little evidence to support the spending goals outlined in the statute. Rather, the State of Florida argued that the statute is "permissive." The court, however, held that "there is no distinction between a statute that is precatory versus one that is compulsory when the challenged statute 'induces an employer to hire with an eye toward meeting … [a] numerical target.' *Florida A.G.C. Council*, 303 F.Supp.2d at 1316.

The court found that the State applies pressure to State agencies to meet the legislative objectives of the statute extending beyond simple outreach efforts. The State agencies, according to the court, were required to coordinate their MBE procurement activities with the OSD, which includes adopting a MBE utilization plan. If the State agency deviated from the utilization plan in two consecutive and three out of five total fiscal years, then the OSD could review any and all solicitations and contract awards of the agency as deemed necessary until such time as the agency met its utilization plan. The court held that based on these factors, although alleged to be "permissive," the statute textually was not.

Therefore, the court found that the statute was not narrowly tailored to serve a compelling governmental interest, and consequently violated the Equal Protection Clause of the Fourteenth Amendment.

17. The Builders Ass'n of Greater Chicago v. The City of Chicago, 298 F. Supp.2d 725 (N.D. Ill. 2003)

This case is instructive because of the court's focus and analysis on whether the City of Chicago's MBE/WBE program was narrowly tailored. The basis of the court's holding that the program was not narrowly tailored is instructive for any program considered because of the reasons provided as to why the program did not pass muster.

The plaintiff, the Builders Association of Greater Chicago, brought this suit challenging the constitutionality of the City of Chicago's construction Minority- and Women-Owned Business ("MWBE") Program. The court held that the City of Chicago's MWBE program was unconstitutional because it did not satisfy the requirement that it be narrowly tailored to achieve a compelling governmental interest. The court held that it was not narrowly tailored for several reasons, including because there was no "meaningful individualized review" of MBE/WBEs; it had no termination date nor did it have any means for determining a termination; the "graduation" revenue amount for firms to graduate out of the program was very high, $27,500,000, and in fact very few firms graduated; there was no net worth threshold; and, waivers were rarely or never granted on construction contracts. The court found that the City program was a "rigid numerical quota," not related to the number of available, willing and able firms. Formulistic percentages, the court held, could not survive the strict scrutiny.

The court held that the goals plan did not address issues raised as to discrimination regarding market access and credit. The court found that a goals program does not directly impact prime contractor's selection of subcontractors on non-goals private projects. The court found that a set-aside or goals program does not directly impact difficulties in accessing credit, and does not address discriminatory

loan denials or higher interest rates. The court found the City has not sought to attack discrimination by primes directly, "but it could." 298 F.2d 725. "To monitor possible discriminatory conduct it could maintain its certification list and require those contracting with the City to consider unsolicited bids, to maintain bidding records, and to justify rejection of any certified firm submitting the lowest bid. It could also require firms seeking City work to post private jobs above a certain minimum on a website or otherwise provide public notice …" *Id.*

The court concluded that other race-neutral means were available to impact credit, high interest rates, and other potential marketplace discrimination. The court pointed to race-neutral means including linked deposits, with the City banking at institutions making loans to startup and smaller firms. Other race-neutral programs referenced included quick pay and contract downsizing; restricting self-performance by prime contractors; a direct loan program; waiver of bonds on contracts under $100,000; a bank participation loan program; a 2 percent local business preference; outreach programs and technical assistance and workshops; and seminars presented to new construction firms.

The court held that race and ethnicity do matter, but that racial and ethnic classifications are highly suspect, can be used only as a last resort, and cannot be made by some mechanical formulation. Therefore, the court concluded the City's MWBE Program could not stand in its present guise. The court held that the present program was not narrowly tailored to remedy past discrimination and the discrimination demonstrated to now exist.

The court entered an injunction, but delayed the effective date for six months from the date of its Order, December 29, 2003. The court held that the City had a "compelling interest in not having its construction projects slip back to near monopoly domination by white male firms." The court ruled a brief continuation of the program for six months was appropriate "as the City rethinks the many tools of redress it has available." Subsequently, the court declared unconstitutional the City's MWBE Program with respect to construction contracts and permanently enjoined the City from enforcing the Program. 2004 WL 757697 (N.D. Ill 2004).

18. Associated Utility Contractors of Maryland, Inc. v. Mayor and City Council of Baltimore, 218 F. Supp.2d 749 (D. Md. 2002)

This case is instructive because the court found the Executive Order of the Mayor of the City of Baltimore was precatory in nature (creating no legal obligation or duty) and contained no enforcement mechanism or penalties for noncompliance and imposed no substantial restrictions; the Executive Order announced goals that were found to be aspirational only.

The Associated Utility Contractors of Maryland, Inc. ("AUC") sued the City of Baltimore challenging its ordinance providing for minority and women-owned business enterprise ("MWBE") participation in city contracts. Previously, an earlier City of Baltimore MWBE program was declared unconstitutional. *Associated Utility Contractors of Maryland, Inc. v. Mayor and City Council of Baltimore*, 83 F. Supp.2d 613 (D. Md. 2000). The City adopted a new ordinance that provided for the establishment of MWBE participation goals on a contract-by-contract basis, and made several other changes from the previous MWBE program declared unconstitutional in the earlier case.

In addition, the Mayor of the City of Baltimore issued an Executive Order that announced a goal of awarding 35 percent of all City contracting dollars to MBE/WBEs. The court found this goal of 35

percent participation was aspirational only and the Executive Order contained no enforcement mechanism or penalties for noncompliance. The Executive Order also specified many "noncoercive" outreach measures to be taken by the City agencies relating to increasing participation of MBE/WBEs. These measures were found to be merely aspirational and no enforcement mechanism was provided.

The court addressed in this case only a motion to dismiss filed by the City of Baltimore arguing that the Associated Utility Contractors had no standing. The court denied the motion to dismiss holding that the association had standing to challenge the new MBE/WBE ordinance, although the court noted that it had significant issues with the AUC having representational standing because of the nature of the MBE/WBE plan and the fact the AUC did not have any of its individual members named in the suit. The court also held that the AUC was entitled to bring an as applied challenge to the Executive Order of the Mayor, but rejected it having standing to bring a facial challenge based on a finding that it imposes no requirement, creates no sanctions, and does not inflict an injury upon any member of the AUC in any concrete way. Therefore, the Executive Order did not create a "case or controversy" in connection with a facial attack. The court found the wording of the Executive Order to be precatory and imposing no substantive restrictions.

After this decision the City of Baltimore and the AUC entered into a settlement agreement and a dismissal with prejudice of the case. An order was issued by the court on October 22, 2003 dismissing the case with prejudice.

19. Associated Utility Contractors of Maryland, Inc. v. The Mayor and City Council of Baltimore, 83 F. Supp.2d 613 (D. Md. 2000)

The court held unconstitutional the City of Baltimore's "affirmative action" program, which had construction subcontracting "set-aside" goals of 20 percent for MBEs and 3 percent for WBEs. The court held there was no data or statistical evidence submitted by the City prior to enactment of the Ordinance. There was no evidence showing a disparity between MBE/WBE availability and utilization in the subcontracting construction market in Baltimore. The court enjoined the City Ordinance.

20. Webster v. Fulton County, 51 F. Supp.2d 1354 (N.D. Ga. 1999), a'ffd per curiam 218 F.3d 1267 (11th Cir. 2000)

This case is instructive as it is another instance in which a court has considered, analyzed, and ruled upon a race-, ethnicity- and gender-conscious program, holding the local government MBE/WBE-type program failed to satisfy the strict scrutiny constitutional standard. The case also is instructive in its application of the *Engineering Contractors Association* case, including to a disparity analysis, the burdens of proof on the local government, and the narrowly tailored prong of the strict scrutiny test.

In this case, plaintiff Webster brought an action challenging the constitutionality of Fulton County's (the "County") minority and female business enterprise program ("M/FBE") program. 51 F. Supp.2d 1354, 1357 (N.D. Ga. 1999). [The district court first set forth the provisions of the M/FBE program and conducted a standing analysis at 51 F. Supp.2d at 1356-62].

The court, *citing Engineering Contractors Association of S. Florida, Inc. v. Metro. Engineering Contractors Association*, 122 F.3d 895 (11th Cir. 1997), held that "[e]xplicit racial preferences may not be used except as a 'last resort.'" *Id.* at 1362-63. The court then set forth the strict scrutiny standard for evaluating racial and ethnic preferences and the four factors enunciated in *Engineering Contractors Association*, and the intermediate scrutiny standard for evaluating gender preferences. *Id.* at 1363. The court found that under *Engineering Contractors Association*, the government could utilize both post-enactment and pre-enactment evidence to meet its burden of a "strong basis in evidence" for strict scrutiny, and "sufficient probative evidence" for intermediate scrutiny. *Id.*

The court found that the defendant bears the initial burden of satisfying the aforementioned evidentiary standard, and the ultimate burden of proof remains with the challenging party to demonstrate the unconstitutionality of the M/FBE program. *Id.* at 1364. The court found that the plaintiff has at least three methods "to rebut the inference of discrimination with a neutral explanation: (1) demonstrate that the statistics are flawed; (2) demonstrate that the disparities shown by the statistics are not significant; or (3) present conflicting statistical data." *Id.*, *citing Eng'g Contractors Ass'n*, 122 F.3d at 916.

[The district court then set forth the *Engineering Contractors Association* opinion in detail.]

The court first noted that the Eleventh Circuit has recognized that disparity indices greater than 80 percent are generally not considered indications of discrimination. *Id.* at 1368, *citing Eng'g Contractors Assoc.*, 122 F.3d at 914. The court then considered the County's pre-1994 disparity study (the "Brimmer-Marshall Study") and found that it failed to establish a strong basis in evidence necessary to support the M/FBE program. *Id.* at 1368.

First, the court found that the study rested on the inaccurate assumption that a statistical showing of underutilization of minorities in the marketplace as a whole was sufficient evidence of discrimination. *Id.* at 1369. The court cited *City of Richmond v. J.A. Croson Co.*, 488 U.S. 496 (1989) for the proposition that discrimination must be focused on contracting by the entity that is considering the preference program. *Id.* Because the Brimmer-Marshall Study contained no statistical evidence of discrimination by the County in the award of contracts, the court found the County must show that it was a "passive participant" in discrimination by the private sector. *Id.* The court found that the County could take remedial action if it had evidence that prime contractors were systematically excluding minority-owned businesses from subcontracting opportunities, or if it had evidence that its spending practices are "exacerbating a pattern of prior discrimination that can be identified with specificity." *Id.* However, the court found that the Brimmer-Marshall Study contained no such data. *Id.*

Second, the Brimmer-Marshall study contained no regression analysis to account for relevant variables, such as firm size. *Id.* at 1369-70. At trial, Dr. Marshall submitted a follow-up to the earlier disparity study. However, the court found the study had the same flaw in that it did not contain a regression analysis. *Id.* The court thus concluded that the County failed to present a "strong basis in evidence" of discrimination to justify the County's racial and ethnic preferences. *Id.*

The court next considered the County's post-1994 disparity study. *Id.* at 1371. The study first sought to determine the availability and utilization of minority- and female-owned firms. *Id.* The court explained:

> Two methods may be used to calculate availability: (1) bid analysis; or (2) bidder analysis. In a bid analysis, the analyst counts the number of bids submitted by minority or female firms over a period of time and divides it by the total number of bids submitted in the same period. In a bidder analysis, the analyst counts the number of minority or female firms submitting bids and divides it by the total number of firms which submitted bids during the same period.

Id. The court found that the information provided in the study was insufficient to establish a firm basis in evidence to support the M/FBE program. *Id*. at 1371-72. The court also found it significant to conduct a regression analysis to show whether the disparities were either due to discrimination or other neutral grounds. *Id*. at 1375-76.

The plaintiff and the County submitted statistical studies of data collected between 1994 and 1997. *Id*. at 1376. The court found that the data were potentially skewed due to the operation of the M/FBE program. *Id*. Additionally, the court found that the County's standard deviation analysis yielded non-statistically significant results (noting the Eleventh Circuit has stated that scientists consider a finding of two standard deviations significant). *Id*. (internal citations omitted).

The court considered the County's anecdotal evidence, and quoted *Engineering Contractors Association* for the proposition that "[a]necdotal evidence can play an important role in bolstering statistical evidence, but that only in the rare case will anecdotal evidence suffice standing alone." *Id*., *quoting Eng'g Contractors Ass'n*, 122 F.3d at 907. The Brimmer-Marshall Study contained anecdotal evidence. *Id*. at 1379. Additionally, the County held hearings but after reviewing the tape recordings of the hearings, the court concluded that only two individuals testified to discrimination by the County; one of them complained that the County used the M/FBE program to only benefit African Americans. *Id*. The court found the most common complaints concerned barriers in bonding, financing, and insurance and slow payment by prime contractors. *Id*. The court concluded that the anecdotal evidence was insufficient in and of itself to establish a firm basis for the M/FBE program. *Id*.

The court also applied a narrow tailoring analysis of the M/FBE program. "The Eleventh Circuit has made it clear that the essence of this inquiry is whether racial preferences were adopted only as a 'last resort.'" *Id*. at 1380, *citing Eng'g Contractors Assoc*., 122 F.3d at 926. The court cited the Eleventh Circuit's four-part test and concluded that the County's M/FBE program failed on several grounds. First, the court found that a race-based problem does not necessarily require a race-based solution. "If a race-neutral remedy is sufficient to cure a race-based problem, then a race-conscious remedy can never be narrowly tailored to that problem." *Id*., *quoting Eng'g Contractors Ass'n*, 122 F.3d at 927. The court found that there was no evidence of discrimination by the County. *Id*. at 1380.

The court found that even though a majority of the Commissioners on the County Board were African American, the County had continued the program for decades. *Id*. The court held that the County had not seriously considered race-neutral measures:

There is no evidence in the record that any Commissioner has offered a resolution during this period substituting a program of race-neutral measures as an alternative to numerical set-asides based upon race and ethnicity. There is no evidence in the record of any proposal by the staff of Fulton County of substituting a program of race-neutral measures as an alternative to numerical set-asides based upon race and ethnicity. There has been no evidence offered of any debate within the Commission

about substituting a program of race-neutral measures as an alternative to numerical set-asides based upon race and ethnicity …. *Id.*

The court found that the random inclusion of ethnic and racial groups who had not suffered discrimination by the County also mitigated against a finding of narrow tailoring. *Id.* The court found that there was no evidence that the County considered race-neutral alternatives as an alternative to race-conscious measures nor that race-neutral measures were initiated and failed. *Id.* at 1381. The court concluded that because the M/FBE program was not adopted as a last resort, it failed the narrow tailoring test. *Id.*

Additionally, the court found that there was no substantial relationship between the numerical goals and the relevant market. *Id.* The court rejected the County's argument that its program was permissible because it set "goals" as opposed to "quotas," because the program in *Engineering Contractors Association* also utilized "goals" and was struck down. *Id.*

Per the M/FBE program's gender-based preferences, the court found that the program was sufficiently flexible to satisfy the substantial relationship prong of the intermediate scrutiny standard. *Id.* at 1383. However, the court held that the County failed to present "sufficient probative evidence" of discrimination necessary to sustain the gender-based preferences portion of the M/FBE program. *Id.*

The court found the County's M/FBE program unconstitutional and entered a permanent injunction in favor of the plaintiff. *Id.* On appeal, the Eleventh Circuit affirmed per curiam, stating only that it affirmed on the basis of the district court's opinion. *Webster v. Fulton County, Georgia*, 218 F.3d 1267 (11th Cir. 2000).

21. Associated Gen. Contractors v. Drabik, 50 F. Supp.2d 741 (S.D. Ohio 1999)

In this decision, the district court reaffirmed its earlier holding that the State of Ohio's MBE program of construction contract awards is unconstitutional. The court cited to *F. Buddie Contracting v. Cuyahoga Community College*, 31 F. Supp.2d 571 (N.D. Ohio 1998), holding a similar local Ohio program unconstitutional. The court repudiated the Ohio Supreme Court's holding in *Ritchey Produce*, 707 N.E. 2d 871 (Ohio 1999), which held that the State's MBE program as applied to the state's purchase of non-construction-related goods and services was constitutional. The court found the evidence to be insufficient to justify the MBE program. The court held that the program was not narrowly tailored because there was no evidence that the State had considered a race-neutral alternative.

This opinion underscored that governments must show four factors to demonstrate narrow tailoring: (1) the necessity for the relief and the efficacy of alternative remedies, (2) flexibility and duration of the relief, (3) relationship of numerical goals to the relevant labor market, and (4) impact of the relief on the rights of third parties. The court held the Ohio MBE program failed to satisfy this test.

22. Phillips & Jordan, Inc. v. Watts, 13 F. Supp.2d 1308 (N.D. Fla. 1998)

This case is instructive because it addressed a challenge to a state and local government MBE/WBE-type program and considered the requisite evidentiary basis necessary to support the program. In

Phillips & Jordan, the district court for the Northern District of Florida held that the Florida Department of Transportation's ("FDOT") program of "setting aside" certain highway maintenance contracts for African American- and Hispanic-owned businesses violated the Equal Protection Clause of the Fourteenth Amendment to the United States Constitution. The parties stipulated that the plaintiff, a non-minority business, had been excluded in the past and may be excluded in the future from competing for certain highway maintenance contracts "set aside" for business enterprises owned by Hispanic and African American individuals. The court held that the evidence of statistical disparities was insufficient to support the Florida DOT program.

The district court pointed out that Florida DOT did not claim that it had evidence of intentional discrimination in the award of its contracts. The court stated that the essence of FDOT's claim was that the two year disparity study provided evidence of a disparity between the proportion of minorities awarded FDOT road maintenance contracts and a portion of the minorities "supposedly willing and able to do road maintenance work," and that FDOT did not itself engage in any racial or ethnic discrimination, so FDOT must have been a passive participant in "somebody's" discriminatory practices.

Since it was agreed in the case that FDOT did not discriminate against minority contractors bidding on road maintenance contracts, the court found that the record contained insufficient proof of discrimination. The court found the evidence insufficient to establish acts of discrimination against African American- and Hispanic-owned businesses.

The court raised questions concerning the choice and use of the statistical pool of available firms relied upon by the disparity study. The court expressed concern about whether it was appropriate to use Census data to analyze and determine which firms were available (qualified and/or willing and able) to bid on FDOT road maintenance contracts.

G. Recent Decisions and Authorities Involving Federal Procurement that May Impact DBE and MBE/WBE Programs

1. Rothe Development Corp. v. U.S. Department of Defense, et al., 545 F.3d 1023 (Fed. Cir. 2008)

Although this case does not involve the Federal DBE Program (49 C.F.R. Part 26), it is an analogous case that may impact the legal analysis and law related to the validity of programs implemented by recipients of federal funds, including the Federal DBE Program. Additionally, it underscores the requirement that race-, ethnic- and gender-based programs of any nature must be supported by substantial evidence. In *Rothe*, an unsuccessful bidder on a federal defense contract brought suit alleging that the application of an evaluation preference, pursuant to a federal statute, to a small disadvantaged bidder (SDB) to whom a contract was awarded, violated the Equal Protection clause of the U.S. Constitution. The federal statute challenged is Section 1207 of the National Defense Authorization Act of 1987 and as reauthorized in 2003. The statute provides a goal that 5 percent of the total dollar amount of defense contracts for each fiscal year would be awarded to small businesses owned and controlled by socially and economically disadvantages individuals. 10 U.S.C. § 2323. Congress authorized the Department of Defense ("DOD") to adjust bids submitted by non-socially and economically disadvantaged firms upwards by 10 percent (the "Price Evaluation Adjustment Program" or "PEA").

The district court held the federal statute, as reauthorized in 2003, was constitutional on its face. The court held the 5 percent goal and the PEA program as reauthorized in 1992 and applied in 1998 was unconstitutional. The basis of the decision was that Congress considered statistical evidence of discrimination that established a compelling governmental interest in the reauthorization of the statute and PEA program in 2003. Congress had not documented or considered substantial statistical evidence that the DOD discriminated against minority small businesses when it enacted the statute in 1992 and reauthorized it in 1998. The plaintiff appealed the decision.

The Federal Circuit found that the "analysis of the facial constitutionality of an act is limited to evidence before Congress prior to the date of reauthorization." 413 F.3d 1327 (Fed. Cir. 2005)(affirming in part, vacating in part, and remanding 324 F. Supp.2d 840 (W.D. Tex. 2004). The court limited its review to whether Congress had sufficient evidence in 1992 to reauthorize the provisions in 1207. The court held that for evidence to be relevant to a strict scrutiny analysis, "the evidence must be proven to have been before Congress prior to enactment of the racial classification." The Federal Circuit held that the district court erred in relying on the statistical studies without first determining whether the studies were before Congress when it reauthorized section 1207. The Federal Circuit remanded the case and directed the district court to consider whether the data presented was so outdated that it did not provide the requisite strong basis in evidence to support the reauthorization of section 1207.

On August 10, 2007 the Federal District Court for the Western District of Texas in *Rothe Development Corp. v. U.S. Dept. of Defense*, 499 F.Supp.2d 775 (W.D.Tex. Aug 10, 2007) issued its Order on remand from the Federal Circuit Court of Appeals decision in *Rothe,* 413 F.3d 1327 (Fed Cir. 2005). The district court upheld the constitutionality of the 2006 Reauthorization of Section 1207 of the National Defense Authorization Act of 1987 (10 USC § 2323), which permits the U.S. Department of Defense to provide preferences in selecting bids submitted by small businesses owned by socially and economically disadvantaged individuals ("SDBs"). The district court found the 2006 Reauthorization of the 1207 Program satisfied strict scrutiny, holding that Congress had a compelling interest when it reauthorized the 1207 Program in 2006, that there was sufficient statistical and anecdotal evidence before Congress to establish a compelling interest, and that the reauthorization in 2006 was narrowly tailored.

The district court, among its many findings, found certain evidence before Congress was "stale," that the plaintiff (Rothe) failed to rebut other evidence which was not stale, and that the decisions by the Eighth, Ninth and Tenth Circuits in the decisions in *Concrete Works*, *Adarand Constructors*, *Sherbrooke Turf* and *Western States Paving* (discussed above and below) were relevant to the evaluation of the facial constitutionality of the 2006 Reauthorization.

2007 Order of the District Court (499 F.Supp.2d 775). In the Section 1207 Act, Congress set a goal that 5 percent of the total dollar amount of defense contracts for each fiscal year would be awarded to small businesses owned and controlled by socially and economically disadvantaged individuals. In order to achieve that goal, Congress authorized the DOD to adjust bids submitted by non-socially and economically disadvantaged firms up to 10 percent. 10 U.S.C. § 2323(e)(3). *Rothe*, 499 F.Supp.2d. at 782. Plaintiff Rothe did not qualify as an SDB because it was owned by a Caucasian female. Although Rothe was technically the lowest bidder on a DOD contract, its bid was adjusted upward by 10 percent, and a third party, who qualified as a SDB, became the "lowest" bidder and was awarded the contract. *Id.* Rothe claims that the 1207 Program is facially unconstitutional because it

takes race into consideration in violation of the Equal Protection component of the Due Process Clause of the Fifth Amendment. *Id.* at 782-83. The district court's decision only reviewed the facial constitutionality of the 2006 Reauthorization of the 2007 Program.

The district court initially rejected six legal arguments made by *Rothe* regarding strict scrutiny review based on the rejection of the same arguments by the Eighth, Ninth, and Tenth Circuit Courts of Appeal in the *Sherbrooke Turf*, *Western States Paving*, *Concrete Works*, *Adarand VII* cases, and the Federal Circuit Court of Appeal in *Rothe*. *Rothe* at 825-833.

The district court discussed and cited the decisions in *Adarand VII* (2000), *Sherbrooke Turf* (2003), and *Western States Paving* (2005), as holding that Congress had a compelling interest in eradicating the economic roots of racial discrimination in highway transportation programs funded by federal monies, and concluding that the evidence cited by the government, particularly that contained in *The Compelling Interest* (a.k.a. the Appendix), more than satisfied the government's burden of production regarding the compelling interest for a race-conscious remedy. *Rothe* at 827. Because the Urban Institute Report, which presented its analysis of 39 state and local disparity studies, was cross-referenced in the Appendix, the district court found the courts in *Adarand VII*, *Sherbrooke Turf*, and *Western States Paving*, also relied on it in support of their compelling interest holding. *Id.* at 827.

The district court also found that the Tenth Circuit decision in *Concrete Works IV*, 321 F.3d 950 (10th Cir. 2003), established legal principles that are relevant to the court's strict scrutiny analysis. First, Rothe's claims for declaratory judgment on the racial constitutionality of the earlier 1999 and 2002 Reauthorizations were moot. Second, the government can meet its burden of production without conclusively proving the existence of past or present racial discrimination. Third, the government may establish its own compelling interest by presenting evidence of its own direct participation in racial discrimination or its passive participation in private discrimination. Fourth, once the government meets its burden of production, Rothe must introduce "credible, particularized" evidence to rebut the government's initial showing of the existence of a compelling interest. Fifth, Rothe may rebut the government's statistical evidence by giving a race-neutral explanation for the statistical disparities, showing that the statistics are flawed, demonstrating that the disparities shown are not significant or actionable, or presenting contrasting statistical data. Sixth, the government may rely on disparity studies to support its compelling interest, and those studies may control for the effect that pre-existing affirmative action programs have on the statistical analysis. *Id.* at 829-32.

Based on *Concrete Works IV*, the district court did not require the government to conclusively prove that there is pervasive discrimination in the relevant market, that each presumptively disadvantaged group suffered equally from discrimination, or that private firms intentionally and purposefully discriminated against minorities. The court found that the inference of discriminatory exclusion can arise from statistical disparities. *Id.* at 830-31.

The district court held that Congress had a compelling interest in the 2006 Reauthorization of the 1207 Program, which was supported by a strong basis in the evidence. The court relied in significant part upon six state and local disparity studies that were before Congress prior to the 2006 Reauthorization of the 1207 Program. The court based this evidence on its finding that Senator Kennedy had referenced these disparity studies, discussed and summarized findings of the disparity studies, and Representative Cynthia McKinney also cited the same six disparity studies that Senator Kennedy referenced. The court stated that based on the content of the floor debate, it found that

these studies were put before Congress prior to the date of the Reauthorization of Section 1207. *Id.* at 838.

The district court found that these six state and local disparity studies analyzed evidence of discrimination from a diverse cross-section of jurisdictions across the United States, and "they constitute prima facie evidence of a nation-wide pattern or practice of discrimination in public and private contracting." *Id*. at 838-39. The court found that the data used in these six disparity studies is not "stale" for purposes of strict scrutiny review. *Id*. at 839. The court disagreed with Rothe's argument that all the data were stale (data in the studies from 1997 through 2002), "because this data was the most current data available at the time that these studies were performed." *Id*. The court found that the governmental entities should be able to rely on the most recently available data so long as those data are reasonably up-to-date. *Id*. The court declined to adopt a "bright-line rule for determining staleness." *Id*.

The court referred to the reliance by the Ninth Circuit and the Eighth Circuit on the *Appendix* to affirm the constitutionality of the USDOT MBE [now DBE] Program, and rejected five years as a bright-line rule for considering whether data are "stale." *Id.* at n.86. The court also stated that it "accepts the reasoning of the *Appendix*, which the court found stated that for the most part "the federal government does business in the same contracting markets as state and local governments. Therefore, the evidence in state and local studies of the impact of discriminatory barriers to minority opportunity in contracting markets throughout the country is relevant to the question of whether the federal government has a compelling interest to take remedial action in its own procurement activities." *Id*. at 839, *quoting 61 Fed.Reg.* 26042-01, 26061 (1996).

The district court also discussed additional evidence before Congress that it found in Congressional Committee Reports and Hearing Records. *Id.* at 865-71. The court noted SBA Reports that were before Congress prior to the 2006 Reauthorization. *Id*. at 871.

The district court found that the data contained in the Appendix, the Benchmark Study, and the Urban Institute Report were "stale," and the court did not consider those reports as evidence of a compelling interest for the 2006 Reauthorization. *Id.* at 872-75. The court stated that the Eighth, Ninth and Tenth Circuits relied on the Appendix to uphold the constitutionality of the Federal DBE Program, citing to the decisions in *Sherbrooke Turf*, *Adarand VII*, and *Western States Paving*. *Id.* at 872. The court pointed out that although it does not rely on the data contained in the *Appendix* to support the 2006 Reauthorization, the fact the Eighth, Ninth, and Tenth Circuits relied on these data to uphold the constitutionality of the Federal DBE Program as recently as 2005, convinced the court that a bright-line staleness rule is inappropriate. *Id.* at 874.

Although the court found that the data contained in the Appendix*,* the Urban Institute Report, and the Benchmark Study were stale for purposes of strict scrutiny review regarding the 2006 Reauthorization, the court found that Rothe introduced no concrete, particularized evidence challenging the reliability of the methodology or the data contained in the six state and local disparity studies, and other evidence before Congress. The court found that Rothe failed to rebut the data, methodology or anecdotal evidence with "concrete, particularized" evidence to the contrary. *Id.* at 875. The district court held that based on the studies, the government had satisfied its burden of producing evidence of discrimination against African Americans, Asian Americans, Hispanic Americans, and Native Americans in the relevant industry sectors. *Id*. at 876.

The district court found that Congress had a compelling interest in reauthorizing the 1207 Program in 2006, which was supported by a strong basis of evidence for remedial action. *Id*. at 877. The court held that the evidence constituted prima facie proof of a nationwide pattern or practice of discrimination in both public and private contracting, that Congress had sufficient evidence of discrimination throughout the United States to justify a nationwide program, and the evidence of discrimination was sufficiently pervasive across racial lines to justify granting a preference to all five purportedly disadvantaged racial groups. *Id*.

The district court also found that the 2006 Reauthorization of the 1207 Program was narrowly tailored and designed to correct present discrimination and to counter the lingering effects of past discrimination. The court held that the government's involvement in both present discrimination and the lingering effects of past discrimination was so pervasive that the DOD and the Department of Air Force had become passive participants in perpetuating it. *Id*. The court stated it was law of the case and could not be disturbed on remand that the Federal Circuit in *Rothe III* had held that the 1207 Program was flexible in application, limited in duration and it did not unduly impact on the rights of third parties. *Id*., *quoting Rothe III*, 262 F.3d at 1331.

The district court thus conducted a narrowly tailored analysis that reviewed three factors:

1. The efficacy of race-neutral alternatives;

2. Evidence detailing the relationship between the stated numerical goal of 5 percent and the relevant market; and

3. Over- and under-inclusiveness.

Id. The court found that Congress examined the efficacy of race-neutral alternatives prior to the enactment of the 1207 Program in 1986 and that these programs were unsuccessful in remedying the effects of past and present discrimination in federal procurement. *Id*. The court concluded that Congress had attempted to address the issues through race-neutral measures, discussed those measures, and found that Congress' adoption of race-conscious provisions were justified by the ineffectiveness of such race-neutral measures in helping minority-owned firms overcome barriers. *Id*. The court found that the government seriously considered and enacted race-neutral alternatives, but these race-neutral programs did not remedy the widespread discrimination that affected the federal procurement sector, and that Congress was not required to implement or exhaust every conceivable race-neutral alternative. *Id*. at 880. Rather, the court found that narrow tailoring requires only "serious, good faith consideration of workable race-neutral alternatives." *Id*.

The district court also found that the 5 percent goal was related to the minority business availability identified in the six state and local disparity studies. *Id*. at 881. The court concluded that the 5 percent goal was aspirational, not mandatory. *Id*. at 882. The court then examined and found that the regulations implementing the 1207 Program were not over-inclusive for several reasons.

November 4, 2008 decision by the Federal Circuit Court of Appeals. On November 4, 2008, the Federal Circuit Court of Appeals reversed the judgment of the district court in part, and remanded with instructions to enter a judgment (1) denying Rothe any relief regarding the facial constitutionality of Section 1207 as enacted in 1999 or 2002, (2) declaring that Section 1207 as

enacted in 2006 (10 U.S.C. § 2323) is facially unconstitutional, and (3) enjoining application of Section 1207 (10 U.S.C. § 2323).

The Federal Circuit Court of Appeals held that Section 1207, on its face, as reenacted in 2006, violated the Equal Protection component of the Fifth Amendment right to due process. The court found that because the statute authorized the DOD to afford preferential treatment on the basis of race, the court applied strict scrutiny, and because Congress did not have a "strong basis in evidence" upon which to conclude that the DOD was a passive participant in pervasive, nationwide racial discrimination — at least not on the evidence produced by the DOD and relied on by the district court in this case — Section 1207 failed to meet this strict scrutiny test. 545 F.3d at 1050.

Strict scrutiny framework. The Federal Circuit Court of Appeals recognized that the Supreme Court has held a government may have a compelling interest in remedying the effects of past or present racial discrimination. 545 F.3d at 1036. The court cited the decision in *Croson*, 488 U.S. at 492, that it is "beyond dispute that any public entity, state or federal, has a compelling interest in assuring that public dollars, drawn from the tax contributions of all citizens, do not serve to finance the evil of private prejudice." 545 F.3d. at 1036, *quoting Croson*, 488 U.S. at 492.

The court held that before resorting to race-conscious measures, the government must identify the discrimination to be remedied, public or private, with some specificity, and must have a strong basis of evidence upon which to conclude that remedial action is necessary. 545 F.3d at 1036, *quoting Croson*, 488 U.S. at 500, 504. Although the party challenging the statute bears the ultimate burden of persuading the court that it is unconstitutional, the Federal Circuit stated that the government first bears a burden to produce strong evidence supporting the legislature's decision to employ race-conscious action. 545 F.3d at 1036.

Even where there is a compelling interest supported by strong basis in evidence, the court held the statute must be narrowly tailored to further that interest. *Id.* The court noted that a narrow tailoring analysis commonly involves six factors: (1) the necessity of relief; (2) the efficacy of alternative, race-neutral remedies; (3) the flexibility of relief, including the availability of waiver provisions; (4) the relationship with the stated numerical goal to the relevant labor market; (5) the impact of relief on the rights of third parties; and (6) the overinclusiveness or underinclusiveness of the racial classification. *Id.*

Compelling interest – strong basis in evidence. The Federal Circuit pointed out that the statistical and anecdotal evidence relief upon by the district court in its ruling below included six disparity studies of state or local contracting. The Federal Circuit also pointed out that the district court found that the data contained in the Appendix, the Urban Institute Report, and the Benchmark Study were stale for purposes of strict scrutiny review of the 2006 Authorization, and therefore, the district court concluded that it would not rely on those three reports as evidence of a compelling interest for the 2006 reauthorization of the 1207 Program. 545 F.3d 1023, citing to *Rothe VI*, 499 F.Supp.2d at 875. Since the DOD did not challenge this finding on appeal, the Federal Circuit stated that it would not consider the Appendix, the Urban Institute Report, or the Department of Commerce Benchmark Study, and instead determined whether the evidence relied on by the district court was sufficient to demonstrate a compelling interest. *Id.*

Six state and local disparity studies. The Federal Circuit found that disparity studies can be relevant to the compelling interest analysis because, as explained by the Supreme Court in *Croson*, "[w]here there is a significant statistical disparity between the number of qualified minority contractors willing and able to perform a particular service and the number of such contractors actually engaged by [a] locality or the locality's prime contractors, an inference of discriminatory exclusion could arise." 545 F.3d at 1037-1038, *quoting Croson*, 488 U.S.C. at 509. The Federal Circuit also cited to the decision by the Fifth Circuit Court of Appeals in *W.H. Scott Constr. Co. v. City of Jackson*, 199 F.3d 206 (5th Cir. 1999) that given *Croson's* emphasis on statistical evidence, other courts considering equal protection challenges to minority-participation programs have looked to disparity indices, or to computations of disparity percentages, in determining whether Croson's evidentiary burden is satisfied. 545 F.3d at 1038, *quoting W.H. Scott*, 199 F.3d at 218.

The Federal Circuit noted that a disparity study is a study attempting to measure the difference- or disparity- between the number of contracts or contract dollars actually awarded minority-owned businesses in a particular contract market, on the one hand, and the number of contracts or contract dollars that one would expect to be awarded to minority-owned businesses given their presence in that particular contract market, on the other hand. 545 F.3d at 1037.

Staleness. The Federal Circuit declined to adopt a per se rule that data more than five years old are stale per se, which rejected the argument put forth by *Rothe*. 545 F.3d at 1038. The court pointed out that the district court noted other circuit courts have relied on studies containing data more than five years old when conducting compelling interest analyses, *citing to Western States Paving v. Washington State Department of Transportation*, 407 F.3d 983, 992 (9th Cir. 2005) and *Sherbrooke Turf, Inc. v. Minnesota Department of Transportation*, 345 F.3d 964, 970 (8th Cir. 2003)(relying on the Appendix, published in 1996).

The Federal Circuit agreed with the district court that Congress "should be able to rely on the most recently available data so long as that data is reasonably up-to-date." 545 F.3d at 1039. The Federal Circuit affirmed the district court's conclusion that the data analyzed in the six disparity studies were not stale at the relevant time because the disparity studies analyzed data pertained to contracts awarded as recently as 2000 or even 2003, and because *Rothe* did not point to more recent, available data. *Id.*

Before Congress. The Federal Circuit found that for evidence to be relevant in the strict scrutiny analysis, it "must be proven to have been before Congress prior to enactment of the racial classification." 545 F.3d at 1039, quoting *Rothe V*, 413 F.3d at 1338. The Federal Circuit had issues with determining whether the six disparity studies were actually before Congress for several reasons, including that there was no indication that these studies were debated or reviewed by members of Congress or by any witnesses, and because Congress made no findings concerning these studies. 545 F.3d at 1039-1040. However, the court determined it need not decide whether the six studies were put before Congress, because the court held in any event that the studies did not provide a substantially probative and broad-based statistical foundation necessary for the strong basis in evidence that must be the predicate for nation-wide, race-conscious action. *Id.* at 1040.

The court did note that findings regarding disparity studies are to be distinguished from formal findings of discrimination by the DOD "which Congress was emphatically not required to make." *Id.* at 1040, footnote 11 (emphasis in original). The Federal Circuit cited the Dean v. City of Shreveport

case that the "government need not incriminate itself with a formal finding of discrimination prior to using a race-conscious remedy." 545 F.3d at 1040, footnote 11 *quoting Dean v. City of Shreveport*, 438 F.3d 448, 445 (5th Cir. 2006).

Methodology. The Federal Circuit found that there were methodological defects in the six disparity studies. The court found that the objections to the parameters used to select the relevant pool of contractors was one of the major defects in the studies. 545 F.3d at 1040-1041.

The court stated that in general, "[a] disparity ratio less than 0.80" — *i.e.*, a finding that a given minority group received less than 80 percent of the expected amount — "indicates a relevant degree of disparity," and "might support an inference of discrimination." 545 F.3d at 1041, quoting the district court opinion in *Rothe VI*, 499 F.Supp.2d at 842; and *citing Engineering Contractors Association of South Florida, Inc. v. Metropolitan Dade County*, 122 F.3d 895, 914 (11th Cir. 1997). The court noted that this disparity ratio attempts to calculate a ratio between the expected contract amount of a given race/gender group and the actual contract amount received by that group. 545 F.3d at 1041.

The court considered the availability analysis, or benchmark analysis, which is utilized to ensure that only those minority-owned contractors who are qualified, willing and able to perform the prime contracts at issue are considered when performing the denominator of a disparity ratio. 545 F.3d at 1041. The court cited to an expert used in the case that a "crucial question" in disparity studies is to develop a credible methodology to estimate this benchmark share of contracts minorities would receive in the absence of discrimination and the touchstone for measuring the benchmark is to determine whether the firm is ready, willing, and able to do business with the government. 545 F.3d at 1041-1042.

The court concluded the contention by Rothe, that the six studies misapplied this "touchstone" of *Croson* and erroneously included minority-owned firms that were deemed willing or potentially willing and able, without regard to whether the firm was qualified, was not a defect that substantially undercut the results of four of the six studies, because "the bulk of the businesses considered in these studies were identified in ways that would tend to establish their qualifications, such as by their presence on city contract records and bidder lists." 545 F.3d at 1042. The court noted that with regard to these studies available prime contractors were identified via certification lists, willingness survey of chamber membership and trade association membership lists, public agency and certification lists, utilized prime contractor, bidder lists, county and other government records and other type lists. *Id.*

The court stated it was less confident in the determination of qualified minority-owned businesses by the two other studies because the availability methodology employed in those studies, the court found, appeared less likely to have weeded out unqualified businesses. *Id.* However, the court stated it was more troubled by the failure of five of the studies to account officially for potential differences in size, or "relative capacity," of the business included in those studies. 545 F.3d at 1042-1043.

The court noted that qualified firms may have substantially different capacities and thus might be expected to bring in substantially different amounts of business even in the absence of discrimination. 545 F.3d at 1043. The Federal Circuit referred to the Eleventh Circuit explanation similarly that because firms are bigger, bigger firms have a bigger chance to win bigger contracts, and thus one would expect the bigger (on average) non-MWBE firms to get a disproportionately higher

percentage of total construction dollars awarded than the smaller MWBE firms. 545 F.3d at 1043 *quoting Engineering Contractors Association*, 122 F.3d at 917. The court pointed out its issues with the studies accounting for the relative sizes of contracts awarded to minority-owned businesses, but not considering the relative sizes of the businesses themselves. *Id.* at 1043.

The court noted that the studies measured the availability of minority-owned businesses by the percentage of firms in the market owned by minorities, instead of by the percentage of total marketplace capacity those firms could provide. *Id.* The court said that for a disparity ratio to have a significant probative value, the same time period and metric (dollars or numbers) should be used in measuring the utilization and availability shares. 545 F.3d at 1044, n. 12.

The court stated that while these parameters relating to the firm size may have ensured that each minority-owned business in the studies met a capacity threshold, these parameters did not account for the relative capacities of businesses to bid for more than one contract at a time, which failure rendered the disparity ratios calculated by the studies substantially less probative on their own, of the likelihood of discrimination. *Id.* at 1044. The court pointed out that the studies could have accounted for firm size even without changing the disparity ratio methodologies by employing regression analysis to determine whether there was a statistically significant correlation between the size of a firm and the share of contract dollars awarded to it. 545 F.3d at 1044 *citing* to *Engineering Contractors Association*, 122 F.3d at 917. The court noted that only one of the studies conducted this type of regression analysis, which included the independent variables of a firm-age of a company, owner education level, number of employees, percent of revenue from the private sector and owner experience for industry groupings. *Id.* at 1044-1045.

The court stated, to "be clear," that it did not hold that the defects in the availability and capacity analyses in these six disparity studies render the studies wholly unreliable for any purpose. *Id.* at 1045. The court said that where the calculated disparity ratios are low enough, the court does not foreclose the possibility that an inference of discrimination might still be permissible for some of the minority groups in some of the studied industries in some of the jurisdictions. *Id.* The court recognized that a minority-owned firm's capacity and qualifications may themselves be affected by discrimination. *Id.* The court held, however, that the defects it noted detracted dramatically from the probative value of the six studies, and in conjunction with their limited geographic coverage, rendered the studies insufficient to form the statistical core of the strong basis and evidence required to uphold the statute. *Id.*

Geographic coverage. The court pointed out that whereas municipalities must necessarily identify discrimination in the immediate locality to justify a race-based program, the court does not think that Congress needs to have had evidence before it of discrimination in all 50 states in order to justify the 1207 program. *Id.* The court stressed, however, that in holding the six studies insufficient in this particular case, "we do not necessarily disapprove of decisions by other circuit courts that have relied, directly or indirectly, on municipal disparity studies to establish a federal compelling interest." 545 F.3d at 1046. The court stated in particular, the Appendix relied on by the Ninth and Tenth Circuits in the context of certain race-conscious measures pertaining to federal highway construction, references the Urban Institute Report, which itself analyzed over 50 disparity studies and relied for its conclusions on over 30 of those studies, a far broader basis than the six studies provided in this case. *Id.*

Anecdotal evidence. The court held that given its holding regarding statistical evidence, it did not review the anecdotal evidence before Congress. The court did point out, however, that there was not

evidence presented of a single instance of alleged discrimination by the DOD in the course of awarding a prime contract, or to a single instance of alleged discrimination by a private contractor identified as the recipient of a prime defense contract. 545 F.3d at 1049. The court noted this lack of evidence in the context of the opinion in Croson that if a government has become a passive participant in a system of racial exclusion practiced by elements of the local construction industry, then that government may take affirmative steps to dismantle the exclusionary system. 545 F.3d at 1048, citing Croson, 488 U.S. at 492.

The Federal Circuit pointed out that the Tenth Circuit in Concrete Works noted the City of Denver offered more than dollar amounts to link its spending to private discrimination, but instead provided testimony from minority business owners that general contractors who use them in city construction projects refuse to use them on private projects, with the result that Denver had paid tax dollars to support firms that discriminated against other firms because of their race, ethnicity and gender. 545 F.3d at 1049, *quoting Concrete Works*, 321 F.3d at 976-977.

In concluding, the court stated that it stressed its holding was grounded in the particular items of evidence offered by the DOD, and "should not be construed as stating blanket rules, for example about the reliability of disparity studies. As the Fifth Circuit has explained, there is no 'precise mathematical formula' to assess the quantum of evidence that rises to the *Croson* 'strong basis in evidence' benchmark.'" 545 F.3d at 1049, *quoting W.H. Scott Constr. Co.*, 199 F.3d at 218 n. 11.

Narrowly tailoring. The Federal Circuit only made two observations about narrowly tailoring, because it held that Congress lacked the evidentiary predicate for a compelling interest. First, it noted that the 1207 Program was flexible in application, limited in duration, and that it did not unduly impact on the rights of third parties. 545 F.3d at 1049. Second, the court held that the absence of strongly probative statistical evidence makes it impossible to evaluate at least one of the other narrowly tailoring factors. Without solid benchmarks for the minority groups covered by the Section 1207, the court said it could not determine whether the 5 percent goal is reasonably related to the capacity of firms owned by members of those minority groups — *i.e.*, whether that goal is comparable to the share of contracts minorities would receive in the absence of discrimination." 545 F.3d at 1049-1050.

2. DynaLantic Corp. v. United States Dept. of Defense, et al., 503 F. Supp.2d 262 (D.D.C. 2007)

DynaLantic Corp. involves a challenge to the DOD's utilization of the Small Business Administration's ("SBA") 8(a) Business Development Program ("8(a) Program"). In its Order of August 23, 2007, the district court denied both parties' Motions for Summary Judgment because there was no information in the record regarding the evidence before Congress supporting its 2006 reauthorization of the program in question; the court directed the parties to propose future proceedings to supplement the record. 503 F. Supp.2d 262, 263 (D.D.C. 2007).

The court first explained that the 8(a) Program sets a goal that no less than 5 percent of total prime federal contract and subcontract awards for each fiscal year be awarded to socially and economically disadvantaged individuals. *Id.* Each federal government agency is required to establish its own goal for contracting but the goals are not mandatory and there is no sanction for failing to meet the goal. Upon application and admission into the 8(a) Program, small businesses owned and controlled by disadvantaged individuals are eligible to receive technological, financial, and practical assistance, and support through preferential award of government contracts. For the past few years, the 8(a)

Program was the primary preferential treatment program the DOD used to meet its 5 percent goal. *Id*. at 264.

This case arose from a Navy contract that the DOD decided to award exclusively through the 8(a) Program. The plaintiff owned a small company that would have bid on the contract but for the fact it was not a participant in the 8(a) Program. After multiple judicial proceedings the D.C. Circuit dismissed the plaintiff's action for lack of standing but granted the plaintiff's motion to enjoin the contract procurement pending the appeal of the dismissal order. The Navy cancelled the proposed procurement but the D.C. Circuit allowed the plaintiff to circumvent the mootness argument by amending its pleadings to raise a facial challenge to the 8(a) program as administered by the SBA and utilized by the DOD. The D.C. Circuit held the plaintiff had standing because of the plaintiff's inability to compete for DOD contracts reserved to 8(a) firms, the injury was traceable to the race-conscious component of the 8(a) Program, and the plaintiff's injury was imminent due to the likelihood the government would in the future try to procure another contract under the 8(a) Program for which the plaintiff was ready, willing, and able to bid. *Id*. at 264-65.

On remand, the plaintiff amended its complaint to challenge the constitutionality of the 8(a) Program and sought an injunction to prevent the military from awarding any contract for military simulators based upon the race of the contractors. *Id*. at 265. The district court first held that the plaintiff's complaint could be read only as a challenge to the DOD's implementation of the 8(a) Program [pursuant to 10 U.S.C. § 2323] as opposed to a challenge to the program as a whole. *Id*. at 266. The parties agreed that the 8(a) Program uses race-conscious criteria so the district court concluded it must be analyzed under the strict scrutiny constitutional standard. The court found that in order to evaluate the government's proffered "compelling government interest," the court must consider the evidence that Congress considered at the point of authorization or reauthorization to ensure that it had a strong basis in evidence of discrimination requiring remedial action. The court cited to *Western States Paving* in support of this proposition. *Id*. The court concluded that because the DOD program was reauthorized in 2006, the court must consider the evidence before Congress in 2006.

The court cited to the recent *Rothe* decision as demonstrating that Congress considered significant evidentiary materials in its reauthorization of the DOD program in 2006, including six recently published disparity studies. The court held that because the record before it in the present case did not contain information regarding this 2006 evidence before Congress, it could not rule on the parties' Motions for Summary Judgment. The court denied both motions and directed the parties to propose future proceedings in order to supplement the record. *Id*. at 267.

3. DynaLantic Corp. v. United States Dept. of Defense, et al., ___ F.Supp.2d ____, 2012 WL 3356813 (D.D.C. Aug. 15, 2012), appeal pending, United States Court of Appeals for the District of Columbia, Docket Numbers 12-5329 and 12-5330

Plaintiff, the DynaLantic Corporation ("DynaLantic"), is a small business that designs and manufactures aircraft, submarine, ship, and other simulators and training equipment. DynaLantic sued the United States Department of Defense ("DoD"), the Department of the Navy, and the Small Business Administration ("SBA") challenging the constitutionality of Section 8(a) of the Small Business Act (the "Section 8(a) program"), on its face and as applied: namely, the SBA's determination that it is necessary or appropriate to set aside contracts in the military simulation and training industry. 2012 WL 3356813, at *1, *37. The Section 8(a) program authorizes the federal

government to limit the issuance of certain contracts to socially and economically disadvantaged businesses. *Id.* at *1. DynaLantic claimed that the Section 8(a) is unconstitutional on its face because the DoD's use of the program, which is reserved for "socially and economically disadvantaged individuals," constitutes an illegal racial preference in violation of the equal protection in violating its right to equal protection under the Due Process Clause of the Fifth Amendment to the Constitution and other rights. *Id.* at *1. DynaLantic also claimed the Section 8(a) program is unconstitutional as applied by the federal defendants in DynaLantic's specific industry, defined as the military simulation and training industry. *Id.*

As described in *DynaLantic Corp. v. United States Department of Defense*, 503 F.Supp. 2d 262 (D.D.C. 2007), the court previously had denied Motions for Summary Judgment by the parties and directed them to propose future proceedings in order to supplement the record with additional evidence subsequent to 2007 before Congress. 503 F.Supp. 2d at 267.

The Section 8(a) Program. The Section 8(a) program is a business development program for small businesses owned by individuals who are both socially and economically disadvantaged as defined by the specific criteria set forth in the congressional statute and federal regulations at 15 U.S.C. §§ 632, 636 and 637; *see* 13 C.F.R. § 124. "Socially disadvantaged" individuals are persons who have been "subjected to racial or ethnic prejudice or cultural bias within American society because of their identities as members of groups without regard to their individual qualities." 13 C.F.R. § 124.103(a); *see also* 15 U.S.C. § 637(a)(5). "Economically disadvantaged" individuals are those socially disadvantaged individuals "whose ability to compete in the free enterprise system has been impaired due to diminished capital and credit opportunities as compared to others in the same or similar line of business who are not socially disadvantaged." 13 C.F.R. § 124.104(a); *see also* 15 U.S.C. § 637(a)(6)(A). *DynaLantic Corp.,* 2012WL 3356813 at *2.

Individuals who are members of certain racial and ethnic groups are presumptively socially disadvantaged; such groups include, but are not limited to, Black Americans, Hispanic Americans, Native Americans, Indian tribes, Asian Pacific Americans, Native Hawaiian Organizations, and other minorities. *Id.* at *2 *quoting* 15 U.S.C. § 631(f)(1)(B)-(c); *see also* 13 C.F.R. § 124.103(b)(1). All prospective program participants must show that they are economically disadvantaged, which requires an individual to show a net worth of less than $250,000 upon entering the program, and a showing that the individual's income for three years prior to the application and the fair market value of all assets do not exceed a certain threshold. 2012 WL 3356813 at *3; *see* 13 C.F.R. § 124.104(c)(2).

Congress has established an "aspirational goal" for procurement from socially and economically disadvantaged individuals, which includes but is not limited to the Section 8(a) program, of five percent of procurements dollars government wide. *See* 15 U.S.C. § 644(g)(1). *DynaLantic*, at *3. Congress has not, however, established a numerical goal for procurement from the Section 8(a) program specifically. *See Id.* Each federal agency establishes its own goal by agreement between the agency head and the SBA. *Id.* DoD has established a goal of awarding approximately two percent of prime contract dollars through the Section 8(a) program. *DynaLantic*, at *3. The Section 8(a) program allows the SBA, "whenever it determines such action is necessary and appropriate," to enter into contracts with other government agencies and then subcontract with qualified program participants. 15 U.S.C. § 637(a)(1). Section 8(a) contracts can be awarded on a "sole source" basis (i.e., reserved to

one firm) or on a "competitive" basis (i.e., between two or more Section 8(a) firms). *DynaLantic, at *3-4; 13 C.F.R. 124.501(b).*

Plaintiff's Business and the Simulation and Training Industry. DynaLantic performs contracts and subcontracts in the simulation and training industry. The simulation and training industry is composed of those organizations that develop, manufacture, and acquire equipment used to train personnel in any activity where there is a human-machine interface. *DynaLantic at *5.*

Compelling Interest. The Court rules that the government must make two showings to articulate a compelling interest served by the legislative enactment to satisfy the strict scrutiny standard that racial classifications are constitutional only if they are narrowly tailored measures that further compelling governmental interests." DynaLantic*,* at *9. First, the government must "articulate a legislative goal that is properly considered a compelling government interest." *Id. quoting Sherbrooke Turf v. Minn. DOT.,* 345 F.3d 964, 969 (8th Cir.2003). Second, in addition to identifying a compelling government interest, "the government must demonstrate 'a strong basis in evidence' supporting its conclusion that race-based remedial action was necessary to further that interest." *DynaLantic,* at *9, *quoting Sherbrooke*, 345 F.3d 969.

After the government makes an initial showing, the burden shifts to DynaLantic to present "credible, particularized evidence" to rebut the government's "initial showing of a compelling interest." *DynaLantic,* at *10 quoting *Concrete Works of Colorado, Inc. v. City and County of Denver,* 321 F.3d 950, 959 (10th Cir. 2003). The court points out that although Congress is entitled to no deference in its ultimate conclusion that race-conscious action is warranted, its fact-finding process is generally entitled to a presumption of regularity and deferential review. *DynaLantic*, at *10, citing *Rothe Dev. Corp. v. U.S. Dep't of Def.* ("*Rothe III*"), 262 F.3d 1306, 1321 n. 14 (Fed. Cir. 2001).

The court held that the federal Defendants state a compelling purpose in seeking to remediate either public discrimination or private discrimination in which the government has been a "passive participant." *DynaLantic*, at *11. The Court rejected *DynaLantic's* argument that the federal Defendants could only seek to remedy discrimination by a governmental entity, or discrimination by private individuals directly using government funds to discriminate. *DynaLantic*, at *11. The Court held that it is well established that the federal government has a compelling interest in ensuring that its funding is not distributed in a manner that perpetuates the effect of either public or private discrimination within an industry in which it provides funding. *DynaLantic*, at *11, citing Western States Paving v. Washington State DOT, 407 F.3d 983, 991 (9th Cir. 2005).

The Court noted that any public entity, state or federal, has a compelling interest in assuring that public dollars, drawn from the tax dollars of all citizens, do not serve to finance the evils of private prejudice, and such private prejudice may take the form of discriminatory barriers to the formation of qualified minority businesses, precluding from the outset competition for public contracts by minority enterprises. *DynaLantic* at *11 *quoting City of Richmond v. J. A. Croson Co., 488 U.S. 469, 492 (1995), and Adarand Constructors, Inc. v. Slater,* 228 F.3d 1147, 1167-68 (10th Cir. 2000). In addition, private prejudice may also take the form of "discriminatory barriers" to "fair competition between minority and non-minority enterprises ... precluding existing minority firms from effectively competing for public construction contracts." *DynaLantic, at *11, quoting Adarand VII,* 228 F.3d at 1168.

Thus, the Court concluded that the government may implement race-conscious programs not only for the purpose of correcting its own discrimination, but also to prevent itself from acting as a "passive participant" in private discrimination in the relevant industries or markets. *DynaLantic,* at *11, *citing Concrete Works IV,* 321 F.3d at 958.

Evidence before Congress. The Court analyzed the legislative history of the Section 8(a) program, and then addressed the issue as to whether the Court is limited to the evidence before Congress when it enacted Section 8(a) in 1978 and revised it in 1988, or whether it could consider post-enactment evidence. *DynaLantic,* at *16-17. The Court found that nearly every circuit court to consider the question has held that reviewing courts may consider post-enactment evidence in addition to evidence that was before Congress when it embarked on the program. *DynaLantic,* at *17. The Court noted that post-enactment evidence is particularly relevant when the statute is over thirty years old, and evidence used to justify Section 8(a) is stale for purposes of determining a compelling interest in the present. *Id*. The Court then followed the 10th Circuit Court of Appeals' approach in *Adarand VII*, and reviewed the post-enactment evidence in three broad categories: (1) evidence of barriers to the formation of qualified minority contractors due to discrimination, (2) evidence of discriminatory barriers to fair competition between minority and non-minority contractors, and (3) evidence of discrimination in state and local disparity studies. *DynaLantic,* at *17.

The Court found that the government presented sufficient evidence of barriers to minority business formation, including evidence on race-based denial of access to capital and credit, lending discrimination, routine exclusion of minorities from critical business relationships, particularly through closed or "old boy" business networks that make it especially difficult for minority-owned businesses to obtain work, and that minorities continue to experience barriers to business networks. *DynaLantic,* at *17-21. The Court considered as part of the evidentiary basis before Congress multiple disparity studies conducted throughout the United States and submitted to Congress, and qualitative and quantitative testimony submitted at Congressional hearings. *Id.*

The Court also found that the government submitted substantial evidence of barriers to minority business development, including evidence of discrimination by prime contractors, private sector customers, suppliers, and bonding companies. *DynaLantic,* at *21-23. The Court again based this finding on recent evidence submitted before Congress in the form of disparity studies, reports and Congressional hearings. *Id.*

State and Local Disparity Studies. Although the Court noted there have been hundreds of disparity studies placed before Congress, the Court considers in particular studies submitted by the federal Defendants of 50 disparity studies, encompassing evidence from 28 states and the District of Columbia, which have been before Congress since 2006. *DynaLantic,* at *25-29. The Court stated it reviewed the studies with a focus on two indicators that other courts have found relevant in analyzing disparity studies. First, the Court considered the disparity indices calculated, which was a disparity index, calculated by dividing the percentage of MBE, WBE, and/or DBE firms *utilized* in the contracting market by the percentage of M/W/DBE firms *available* in the same market. *DynaLantic,* at *26. The Court said that normally, a disparity index of 100 demonstrates full M/W/DBE participation; the closer the index is to zero, the greater the M/W/DBE disparity due to underutilization. *DynaLantic,* at *26.

Second, the Court reviewed the method by which studies calculated the *availability* and *capacity* of minority firms. *DynaLantic,* at *26. The Court noted that some courts have looked closely at these factors to evaluate the reliability of the disparity indices, reasoning that the indices are not probative unless they are restricted to firms of significant size and with significant government contracting experience. *DynaLantic,* at *26. The Court pointed out that although discriminatory barriers to formation and development would impact capacity, the Supreme Court decision in *Croson* and the Court of Appeals decision in *O'Donnell Construction Co. v. District of Columbia, et al.,* 963 F.2d 420 (D.C. Cir. 1992) "require the additional showing that eligible minority firms experience disparities, notwithstanding their abilities, in order to give rise to an inference of discrimination." *DynaLantic,* at *26, n. 10.

Analysis: Strong Basis in Evidence. Based on an analysis of the disparity studies and other evidence, the Court concluded that the government articulated a compelling interest for the Section 8(a) program and satisfied its initial burden establishing that Congress had a strong basis in evidence permitting race-conscious measures to be used under the Section 8(a) program. *DynaLantic,* at *29-37. The Court held that DynaLantic did not meet its burden to establish that the Section 8(a) program is unconstitutional on its face, finding that DynaLantic could not show that Congress did not have a strong basis in evidence for permitting race-conscious measures to be used under any circumstances, in any sector or industry in the economy. *DynaLantic,* at *29.

The Court discussed and analyzed the evidence before Congress, which included extensive statistical analysis, qualitative and quantitative consideration of the unique challenges facing minorities from all businesses, and an examination of their race-neutral measures that have been enacted by previous Congresses, but had failed to reach the minority owned firms. *DynaLantic,* at *31. The Court said Congress had spent decades compiling evidence of race discrimination in a variety of industries, including but not limited to construction. *DynaLantic,* at *31. The Court also found that the federal government produced significant evidence related to professional services, architecture and engineering, and other industries. *DynaLantic,* at *31. The Court stated that the government has therefore "established that there are at least some circumstances where it would be 'necessary or appropriate' for the SBA to award contracts to businesses under the Section 8(a) program. *DynaLantic,* at *31, *citing* 15 U.S.C. § 637(a)(1).

Therefore, the Court concluded that in response to Plaintiff's facial challenge, the government met its initial burden to present a strong basis in evidence sufficient to support its articulated, constitutionally valid, compelling interest. *DynaLantic,* at *31. The Court also found that the evidence from around the country is sufficient for Congress to authorize a nationwide remedy. *DynaLantic,* at *31, n. 13.

Rejection of DynaLantic's Rebuttal Arguments. The Court held that since the federal Defendants made the initial showing of a compelling interest, the burden shifted to the Plaintiff to show why the evidence relied on by Defendants fails to demonstrate a compelling governmental interest. *DynaLantic,* at *32. The Court rejected each of the challenges by DynaLantic, including holding that: the legislative history is sufficient; the government compiled substantial evidence that identified private racial discrimination which affected minority utilization in specific industries of government contracting, both before and after the enactment of the Section 8(a) program; any flaws in the evidence, including the disparity studies, DynaLantic has identified in the data do not rise to the level

of credible, particularized evidence necessary to rebut the government's initial showing of a compelling interest; DynaLantic cited no authority in support of its claim that fraud in the administration of race-conscious programs is sufficient to invalidate Section 8(a) program on its face; and Congress had strong evidence that the discrimination is sufficiently pervasive across racial lines to justify granting a preference for all five groups included in Section 8(a). *DynaLantic,* at *32-36.

In this connection, the Court stated it agreed with *Croson* and its progeny that the government may properly be deemed a "passive participant" when it fails to adjust its procurement practices to account for the effects of identified private discrimination on the availability and utilization of minority-owned businesses in government contracting. *DynaLantic,* at *34. In terms of flaws in the evidence, the Court pointed out that the proponent of the race-conscious remedial program is not required to unequivocally establish the existence of discrimination, nor is it required to negate all evidence of non-discrimination. *DynaLantic,* at *35, *citing Concrete Work IV*, 321 F.3d at 991. Rather, a strong basis in evidence exists, the Court stated, when there is evidence approaching a *prima facie* case of a constitutional or statutory violation, not irrefutable or definitive proof of discrimination. *Id, citing Croson,* 488 U.S. 500. Accordingly, the Court stated that DynaLantic's claim that the government must independently verify the evidence presented to it is unavailing. *Id. DynaLantic,* at *35.

Also in terms of DynaLantic's arguments about flaws in the evidence, the Court noted that Defendants placed in the record approximately 50 disparity studies which had been introduced or discussed in Congressional Hearings since 2006, which DynaLantic did not rebut or even discuss any of the studies individually. *DynaLantic,* at *35. DynaLantic asserted generally that the studies did not control for the capacity of the firms at issue, and were therefore unreliable. *Id.* The Court pointed out that Congress need not have evidence of discrimination in all 50 states to demonstrate a compelling interest, and that in this case, the federal Defendants presented recent evidence of discrimination in a significant number of states and localities which, taken together, represents a broad cross-section of the nation. *DynaLantic,* at *35, n. 15. The Court stated that while not all of the disparity studies accounted for the capacity of the firms, many of them did control for capacity and still found significant disparities between minority and non-minority owned firms. *DynaLantic,* at *35. In short, the Court found that DynaLantic's "general criticism" of the multitude of disparity studies does not constitute particular evidence undermining the reliability of the particular disparity studies and therefore is of little persuasive value. *DynaLantic,* at *35.

In terms of the argument by DynaLantic as to requiring proof of evidence of discrimination against each minority group, the Court stated that Congress has a strong basis in evidence if it finds evidence of discrimination is sufficiently pervasive across racial lines to justify granting a preference to all five disadvantaged groups included in Section 8(a). The Court found Congress had strong evidence that the discrimination is sufficiently pervasive across racial lines to justify a preference to all five groups. *DynaLantic,* at *36. The fact that specific evidence varies, to some extent, within and between minority groups, was not a basis to declare this statute facially invalid. *DynaLantic,* at *36.

Facial Challenge: Conclusion. The Court concluded Congress had a compelling interest in eliminating the roots of racial discrimination in federal contracting and had established a strong basis of evidence to support its conclusion that remedial action was necessary to remedy that discrimination by providing significant evidence in three different area. First, it provided extensive evidence of discriminatory barriers to minority business formation. *DynaLantic,* at *37. Second, it

provided "forceful" evidence of discriminatory barriers to minority business development. *Id.* Third, it provided significant evidence that, even when minority businesses are qualified and eligible to perform contracts in both the public and private sectors, they are awarded these contracts far less often than their similarly situated non-minority counterparts. *Id.* The Court found the evidence was particularly strong, nationwide, in the construction industry, and that there was substantial evidence of widespread disparities in other industries such as architecture and engineering, and professional services. *Id.*

As-Applied Challenge. *DynaLantic* also challenged the SBA and DoD's use of the Section 8(a) program as applied: namely, the agencies' determination that it is necessary or appropriate to set aside contracts in the military simulation and training industry. *DynaLantic,* at *37. Significantly, the Court points out that the federal Defendants "concede that they do not have evidence of discrimination in this industry." *Id.* Moreover, the Court points out that the federal Defendants admitted that there "is no Congressional report, hearing or finding that references, discusses or mentions the simulation and training industry." *DynaLantic,* at *38. The federal Defendants also admit that they are "unaware of any discrimination in the simulation and training industry." *Id.* In addition, the federal Defendants admit that none of the documents they have submitted as justification for the Section 8(a) program mentions or identifies instances of past or present discrimination in the simulation and training industry. *DynaLantic,* at *38.

The federal Defendants maintain that the government need not tie evidence of discriminatory barriers to minority business formation and development to evidence of discrimination in any particular industry. *DynaLantic,* at *38. The Court concludes that the federal Defendants' position is irreconcilable with binding authority upon the Court, specifically, the United States Supreme Court's decision in *Croson,* as well as the Federal Circuit's decision in *O'Donnell Construction Company,* which adopted *Croson's* reasoning. *DynaLantic,* at *38. The Court holds that *Croson* made clear the government must provide evidence demonstrating there were eligible minorities in the relevant market. *DynaLantic,* at *38. The Court held that absent an evidentiary showing that, in a highly skilled industry such as the military simulation and training industry, there are eligible minorities who are qualified to undertake particular tasks and are nevertheless denied the opportunity to thrive there, the government cannot comply with *Croson's* evidentiary requirement to show an inference of discrimination. *DynaLantic,* at *39, *citing Croson*, 488 U.S. 501. The Court rejects the federal government's position that it does not have to make an industry-based showing in order to show strong evidence of discrimination. *DynaLantic,* at *40.

The Court notes that the Department of Justice has recognized that the federal government must take an industry-based approach to demonstrating compelling interest. *DynaLantic,* at *40, *citing Cortez III Service Corp. v. National Aeronautics & Space Administration*, 950 F.Supp. 357 (D.D.C. 1996). In *Cortez,* the Court found the Section 8(a) program constitutional on its face, but found the program unconstitutional as applied to the NASA contract at issue because the government had provided no evidence of discrimination in the industry in which the NASA contract would be performed. *DynaLantic,* at *40. The Court pointed out that the Department of Justice had advised federal agencies to make industry-specific determinations before offering set-aside contracts and specifically cautioned them that without such particularized evidence, set-aside programs may not survive *Croson* and *Adarand*. *DynaLantic,* at *40.

The Court recognized that legislation considered in *Croson, Adarand* and *O'Donnell* were all restricted to one industry, whereas this case presents a different factual scenario, because Section 8(a) is not industry-specific. *DynaLantic,* at *40, n. 17. The Court noted that the government did not propose an alternative framework to *Croson* within which the Court can analyze the evidence, and that in fact, the evidence the government presented in the case is industry specific. *Id*.

The Court concluded that agencies have a responsibility to decide if there has been a history of discrimination in the particular industry at issue. *DynaLantic,* at *40. According to the Court, it need not take a party's definition of "industry" at face value, and may determine the appropriate industry to consider is broader or narrower than that proposed by the parties. *Id*. However, the Court stated, in this case the government did not argue with Plaintiff's industry definition, and more significantly, it provided no evidence whatsoever from which an inference of discrimination in that industry could be made. *DynaLantic,* at *40.

Narrowly Tailoring. In addition to showing strong evidence that a race-conscious program serves a compelling interest, the government is required to show that the means chosen to accomplish the government's asserted purpose are specifically and narrowly framed to accomplish that purpose. *DynaLantic,* at *41. The Court considered several factors in the narrowly tailoring analysis: the efficacy of alternative, race-neutral remedies, flexibility, over- or under-inclusiveness of the program, duration, the relationship between numerical goals and the relevant labor market, and the impact of the remedy on third parties. *Id*.

The Court analyzed each of these factors and found that the federal government satisfied all six factors. *DynaLantic,* at *41-48. The Court found that the federal government presented sufficient evidence that Congress attempted to use race-neutral measures to foster and assist minority owned businesses relating to the race-conscious component in Section 8(a), and that these race-neutral measures failed to remedy the effects of discrimination on minority small business owners. *DynaLantic,* at *42. The Court found that the Section 8(a) program is sufficiently flexible in granting race-conscious relief because race is made relevant in the program, but it is not a determinative factor or a rigid racial quota system. *DynaLantic,* at *43. The Court noted that the Section 8(a) program contains a waiver provision and that the SBA will not accept a procurement for award as an 8(a) contract if it determines that acceptance of the procurement would have an adverse impact on small businesses operating outside the Section 8(a) program. *DynaLantic,* at *44.

The Court found that the Section 8(a) program was not over- and under-inclusive because the government had strong evidence of discrimination which is sufficiently pervasive across racial lines to all five disadvantaged groups, and Section 8(a) does not provide that every member of a minority group is disadvantaged. *DynaLantic,* at *44. In addition, the program is narrowly tailored because it is based not only on social disadvantage, but also on an individualized inquiry into economic disadvantage, and that a firm owned by a non-minority may qualify as socially and economically disadvantaged. *DynaLantic,* at *44.

The Court also found that the Section 8(a) program places a number of strict durational limits on a particular firm's participation in the program, places temporal limits on every individual's participation in the program, and that a participant's eligibility is continually reassessed and must be maintained throughout its program term. *DynaLantic,* at *45. Section 8(a)'s inherent time limit and

graduation provisions ensure that it is carefully designed to endure only until the discriminatory impact has been eliminated, and thus it is narrowly tailored. *DynaLantic,* at *46.

In light of the government's evidence, the Court concluded that the aspirational goals at issue, all of which were less than five percent of contract dollars, are facially constitutional. *DynaLantic,* at *46-47. The evidence, the Court noted, established that minority firms are ready, willing, and able to perform work equal to two to five percent of government contracts in industries including but not limited to construction. *Id*. The Court found the effects of past discrimination have excluded minorities from forming and growing businesses, and the number of available minority contractors reflects that discrimination. *DynaLantic,* at *47.

Finally, the Court found that the Section 8(a) program takes appropriate steps to minimize the burden on third parties, and that the Section 8(a) program is narrowly tailored on its face. *DynaLantic,* at *48. The Court concluded that the government is not required to eliminate the burden on non-minorities in order to survive strict scrutiny, but a limited and properly tailored remedy to cure the effects of prior discrimination is permissible even when it burdens third parties. *Id*. The Court points to a number of provisions designed to minimize the burden on non-minority firms, including the presumption that a minority applicant is socially disadvantaged may be rebutted, an individual who is not presumptively disadvantaged may qualify for such status, the 8(a) program requires an individualized determination of economic disadvantage, and it is not open to individuals whose net worth exceeds $250,000 regardless of race. *Id.*

Conclusion. The Court concluded that the Section 8(a) program is constitutional on its face. The Court also held that it is unable to conclude that the federal Defendants have produced evidence of discrimination in the military simulation and training industry sufficient to demonstrate a compelling interest. Therefore, *DynaLantic* prevailed on its as-applied challenge. *DynaLantic,* at *51. Accordingly, the Court granted the federal Defendants' Motion for Summary Judgment in part (holding the Section 8(a) program is valid on its face) and denied it in part, and granted the Plaintiff's Motion for Summary Judgment in part (holding the program is invalid as applied to the military simulation and training industry) and denied it in part. The Court held that the SBA and the DoD are enjoined from awarding procurements for military simulators under the Section 8(a) program without first articulating a strong basis in evidence for doing so.

Appeal Pending. A Notice of Appeal and Notice of Cross Appeal have been filed in this case to the United States Court of Appeals for the District of Columbia by the United Status and DynaLantic: Docket Numbers 12-5329 and 12-5330.

4. "Federal Procurement After Adarand" (USCCR Report September, 2005)

In September of 2005, the United States Commission on Civil Rights ("Commission") issued its report entitled "Federal Procurement After *Adarand*" setting forth its findings pertaining to federal agencies' compliance with the constitutional standard enunciated in *Adarand*. United States Commission on Civil Rights: Federal Procurement After *Adarand* (Sept. 2005), *available at* http://www.usccr.gov, *citing Adarand*, 515 U.S. at 237-38. The following is a brief summary of the report.

In 1995, the United States Supreme Court decided *Adarand Constructors, Inc. v. Pena,* 515 U.S. 200 (1995), which set forth the constitutional standard for evaluating race-conscious programs in federal contracting. The Commission states in its report that the court in *Adarand* held that racial classifications imposed by federal, state and local governments are subject to strict scrutiny and the burden is upon the government entity to show that the racial classification is the least restrictive way to serve a "compelling public interest;" the government program must be narrowly tailored to meet that interest. The court held that narrow tailoring requires, among other things, that "agencies must first consider race-neutral alternatives before using race conscious measures." [p. ix]

Scope and methodology of the Commission's report. The purpose of the Commission's study was to examine the race-neutral programs and strategies implemented by agencies to meet the requirements set forth in Adarand. Accordingly, the study considered the following questions:

- Do agencies seriously consider workable race-neutral alternatives, as required by *Adarand*?
- Do agencies sufficiently promote and participate in race-neutral practices such as mentor-protégé programs, outreach, and financial and technical assistance?
- Do agencies employ and disclose to each other specific best practices for consideration of race-neutral alternatives?
- How do agencies measure the effects of race-neutral programs on federal contracting?
- What race-neutral mechanisms exist to ensure government contracting is not discriminatory?

The Commission's staff conducted background research, reviewing government documents, federal procurement and economic data, federal contracting literature, and pertinent statutes, regulations and court decisions. The Commission selected seven agencies to study in depth and submitted interrogatories to assess the agencies' procurement methods. The agencies selected for evaluation procure relatively large amounts of goods and services, have high numbers of contracts with small businesses, SDBs, or HUBZone firms, or play a significant support or enforcement role: the Small Business Administration (SBA), and the Departments of Defense (DOD), Transportation (DOT), Education (DOEd), Energy (DOEn), Housing and Urban Development (HUD), and State (DOS).

The report did not evaluate existing disparity studies or assess the validity of data suggesting the persistence of discrimination. It also did not seek to identify whether, or which, aspects of the contracting process disparately affect minority-owned firms.

Findings and recommendations. The Commission concluded that "among other requirements, agencies must consider race-neutral strategies before adopting any that allow eligibility based, even in part, on race." [p. ix] The Commission further found "that federal agencies have not complied with their constitutional obligation, according to the Supreme Court, to narrowly tailor programs that use racial classifications by considering race-neutral alternatives to redress discrimination." [p. ix]

The Commission found that "agencies have largely failed to apply the Supreme Court's requirements, or [the U.S. Department of Justice's ("DOJ")] guidelines, to their contracting programs." [p. 70] The Commission found that agencies "have not seriously considered race-neutral alternatives, relying instead on SBA-run programs, without developing new initiatives or properly assessing the results of existing programs." [p. 70]

The Commission identified four elements that underlie "serious consideration" of race-neutral efforts, ensure an inclusive and fair race-neutral system, and tailor race-conscious programs to meet a documented need: "Element 1: Standards — Agencies must develop policy, procedures, and statistical standards for evaluating race-neutral alternatives; Element 2: Implementation — Agencies must develop or identify a wide range of race-neutral approaches, rather than relying on only one or two generic government-wide programs; Element 3: Evaluation — Agencies must measure the effectiveness of their chosen procurement strategies based on established empirical standards and benchmarks; Element 4: Communication — Agencies should communicate and coordinate race-neutral practices to ensure maximum efficiency and consistency government-wide." [p. xi]

The Commission found that "despite the requirements that *Adarand* imposed, federal agencies fail to consider race-neutral alternatives in the manner required by the Supreme Court's decision." [p. xiii] The Commission also concluded that "[a]gencies engage in few race-neutral strategies designed to make federal contracting more inclusive, but do not exert the effort associated with serious consideration that the Equal Protection Clause requires. Moreover, they do not integrate race-neutral strategies into a comprehensive procurement approach for small and disadvantaged businesses." [p. xiii]

Serious consideration [P. 71]

Finding: Most agencies could not demonstrate that they consider race-neutral alternatives before resorting to race-conscious programs. Due to the lack of specific guidance from the DOJ, "agencies appear to give little thought to their legal obligations and disagree both about what the law requires and about the legal ramifications of their actions."

Recommendation: Agencies must adopt and follow guidelines to ensure consideration of race-neutral alternatives, which system could include: (1) identifying and evaluating a wide range of alternatives; (2) articulating the underlying facts that demonstrate whether race-neutral plans work; (3) collecting empirical research to evaluate success; (4) ensuring such assessments are based on current, competent and comprehensive data; (5) periodically reviewing race conscious plans to determine their continuing need; and (6) establishing causal relationships before concluding that a race-neutral plan is ineffective. Best practices could include: (1) statistical standards by which agencies would determine when to abandon race race-conscious efforts; (2) ongoing data collection, including racial and ethnic information, by which agencies would assess effectiveness; and (3) policies for reviewing what constitutes disadvantaged status and the continued necessity for strategies to increase inclusiveness.

Antidiscrimination policy and enforcement [P. 72]

Finding: The federal government lacks an appropriate framework for enforcing nondiscrimination in procurement. Limited causes of action are available to contractors and subcontractors, but the most accessible mechanisms are restricted to procedural complaints about bidding processes.

Recommendation: The enactment of legislation expressly prohibiting discrimination based on race, color, religion, sex, national origin, age, and disability, in federal contracting and procurement. Such legislation should include protections for both contractors and subcontractors and establish clear sanctions, remedies and compliance standards. Enforcement authority should be delegated to each agency with contracting capabilities.

Finding: Most agencies do not have policies or procedures to prevent discrimination in contracting. Generally, agencies are either unaware of or confused about whether federal law protects government contractors from discrimination.

Recommendation: The facilitation of agency development and implementation of civil rights enforcement policies for contracting. Agencies must establish strong enforcement systems to provide individuals a means to file and resolve complaints of discriminatory conduct. Agencies must also adopt clear compliance review standards and delegate authority for these functions to a specific, high-level component. Once agencies adopt nondiscrimination policies, they should conduct regular compliance reviews of prime and other large contract recipients, such as state and local agencies. Agencies should widely publicize complaint procedures, include them with bid solicitations, and codify them in acquisition regulations. Civil rights personnel in each agency should work with procurement officers to ensure that contractors understand their rights and responsibilities and implement additional policies upon legislative action.

Finding: Agencies generally employ systems for reviewing compliance with subcontracting goals made at the bidding stage, but do not establish norms for the number of reviews they will conduct, nor the frequency with which they will do so.

Recommendation: Good faith effort policies should be rooted in race-neutral outreach. Agencies should set standards for and carry out regular on-site audits and formal compliance reviews of SDB subcontracting plans to make determinations of contractors' good faith efforts to achieve established goals. Agencies should develop and disseminate clear regulations for what constitutes a good faith effort, specific to individual procurement goals and procedures. Agencies should also require that all prime contractors be subject to audits, and require prime contractors to demonstrate all measures taken to ensure equal opportunity for SDBs to compete, paying particular attention to contractors that have not achieved goals expressed in their offers.

Ongoing review [P. 73]

Finding: Narrow tailoring requires regular review of race-conscious programs to determine their continued necessity and to ensure that they are focused enough to serve their intended purpose. However, no agency reported policies, procedures, or statistical standards for when to use race-conscious instead of race-neutral strategies, nor had agencies established procedures to reassess presumptions of disadvantage.

Recommendation: Agencies must engage in regular, systematic reviews (perhaps biennial) of race-conscious programs, including those that presume race-based disadvantage. They should develop and

document clear policies, standards and justifications for when race-conscious programs are in effect. Agencies should develop and implement standards for the quality of data they collect and use to analyze race-conscious and race-neutral programs and apply these criteria when deciding effectiveness. Agencies should also evaluate whether race-neutral alternatives could reasonably generate the same or similar outcomes, and should implement such alternatives whenever possible.

Data and measurement [P. 73-75]

Finding: Agencies have neither conducted race disparity studies nor collected empirical data to assess the effects of procurement programs on minority-owned firms.

Recommendation: Agencies should conduct regular benchmark studies which should be tailored to each agency's specific contracting needs; and the results of the studies should be used in setting procurement goals.

Finding: The current procurement data does not evaluate the effectiveness or continuing need for race-neutral and/or race-conscious programs.

Recommendation: A task force should determine what data is necessary to implement narrow tailoring and assess whether (1) race-conscious programs are still necessary, and (2) the extent to which race-neutral strategies are effective as an alternative to race-conscious programs.

Finding: Agencies do not assess the effectiveness of individual race-neutral strategies (e.g., whether contract unbundling is a successful race-neutral strategy).

Recommendation: Agencies should measure the success of race-neutral strategies independently so they can determine viability as alternatives to race-conscious measures (e.g., agencies could track the number and dollar value of contracts broken apart, firms to which smaller contracts are awarded, and the effect of such efforts on traditionally excluded firms).

Communication and collaboration [P. 75]

Finding: Agencies do not communicate effectively with each other about efforts to strengthen procurement practices (e.g., there is no exchange of race-neutral best practices).

Recommendation: Agencies should engage in regular meetings with each other to share information and best practices, coordinate outreach, and develop measurement strategies.

Outreach [P. 76]

Finding: Even though agencies engage in outreach efforts, there is little evidence that their efforts to reach small and disadvantaged businesses are successful. They do not produce planning or reporting documents on outreach activities, nor do they apply methods for tracking activities, expenditures, or the number and types of beneficiaries.

Recommendation: Widely broadcast information on the Internet and in popular media is only one of several steps necessary for a comprehensive and effective outreach program. Agencies can use a variety of formats — conferences, meetings, forums, targeted media, Internet, printed materials, ad campaigns, and public service announcements — to reach appropriate audiences. In addition, agencies should capitalize on technological capabilities, such as listservs, text messaging, audio

subscription services, and new technologies associated with portable listening devices, to circulate information about contracting opportunities. Agencies should include outreach in budget and planning documents, establish goals for conducting outreach activities, track the events and diversity of the audience, and train staff in outreach strategies and skills.

Conclusion

The Commission found that 10 years after the Supreme Court's Adarand decision, federal agencies have largely failed to narrowly tailor their reliance on race-conscious programs and have failed to seriously consider race-neutral decisions that would effectively redress discrimination. Although some agencies employ some race-neutral strategies, the agencies fail "to engage in the basic activities that are the hallmarks of serious consideration," including program evaluation, outcomes measurement, reliable empirical research and data collection, and periodic review.

The Commission found that most federal agencies have not implemented "even the most basic race-neutral strategy to ensure equal access, *i.e.*, the development, dissemination, and enforcement of clear, effective antidiscrimination policies. Significantly, most agencies do not provide clear recourse for contractors who are victims of discrimination or guidelines for enforcement."

One Commission member, Michael Yaki, filed an extensive Dissenting Statement to the Report. [pp. 79-170]. This Dissenting Statement by Commissioner Yaki was referred to and discussed by the district court in *Rothe Development Corp. v. US DOD*, 499 F.Supp.2d 775, 864-65 (W.D. Tex. August 10, 2007), *reversed* on appeal, *Rothe*, 545 F.3d 1023 (Fed.Cir 2008), (*see* discussion of *Rothe* above. In his dissent, Commissioner Yaki criticized the Majority Opinion, including noting that his statistical data was "*deleted*" from the original version of the draft Majority Opinion that was received by all Commissioners. The district court in *Rothe* considered the data discussed by Yaki.

APPENDIX C.
Utilization Data Collection

Keen Independent compiled data about NDOT and local agency contracts and the firms used as prime contractors and subcontractors on those contracts. From these data, Keen Independent calculated the percentage of contract dollars that went to minority-, women- and majority-owned businesses. The study team counted DBE-certified as well as non-DBE-certified minority- and women-owned businesses when calculating MBE/WBE utilization. The utilization analysis focused on transportation-related construction and engineering contracts that NDOT and local agencies awarded during the 2007-June 2012 study period.

Keen Independent sought sources of data that consistently included information about prime contractors and subcontractors on both FHWA- and state-funded contracts, regardless of firm ownership or DBE certification status. The study team analyzed both FHWA-funded and state-funded construction and engineering contracts. Headquarters and District contracts were included. The utilization analysis also encompasses contracts awarded by local agencies receiving FHWA or state funds through the Local Public Agency Program.

NDOT's past DBE participation reports submitted to FHWA could not provide this comprehensive information. By design, the DBE participation reports only include FHWA-funded contracts. However, they do not consistently include engineering-related contracts, District construction contracts or LPA Program contracts, even when FHWA-funded.

In sum, the contract and subcontract information compiled in this disparity study is far more comprehensive than NDOT has assembled to date. It surpasses the scope of data collection in the 2007 Disparity Study for NDOT.

Appendix C describes the study team's utilization data collection processes in five parts:

A. NDOT contract and agreement data;

B. Local Public Agency (LPA) Program contract data;

C. NDOT bid and proposal data;

D. Characteristics of utilized firms and bidders;

E. NDOT review; and

F. Data limitations

A. NDOT Contract and Agreement Data

Keen Independent collected data on transportation-related construction and engineering contracts that NDOT awarded during the study period. The study team also collected data for contracts that NDOT administers through the Local Public Agency (LPA) Program.

NDOT construction projects. Keen Independent collected data on transportation-related construction prime contracts — and associated subcontracts — that NDOT awarded from January 1, 2007 through June 30, 2012.

NDOT uses both "contracts" and "agreements" to contract for construction services. Therefore, Keen Independent collected information regarding both NDOT construction contracts and agreements. Throughout, the data collection focused on transportation-related contracts such as highway construction, road maintenance and related activities.

The primary information sources for construction contracts were Construction Division spreadsheets identifying contracts and prime contractors and Contract Compliance Unit spreadsheets that contained dollars going to prime contractors and subcontractors for each project. Combined, these data sources provided information including:

- Project and contract number;
- Description of work;
- Award date;
- Award amount;
- Amendment or change order amounts (when applicable);
- Location of work (i.e., NDOT district);
- Whether the contract included federal funding;
- Prime contractor name;
- Whether DBE goals were applied, and if so, level of goal; and
- For subcontractors, firm names, dollar amounts and type of work performed.

NDOT Construction Division staff and Contract Compliance Unit staff reviewed the construction contract database developed by Keen Independent.

Under state law (NRS 383.141), prime contractors on public works projects are required to list subcontractors to be used for a portion of work at or immediately after submitting a bid, if the size of the work meets a minimum threshold.[1] Further, NDOT monitors the utilization of subcontractors

[1] Bidders must submit "the name of each first tier subcontractor who will provide labor or a portion of the work on the public work to the prime contractor for which the first tier subcontractor will be paid an amount exceeding 5 percent of the prime contractor's total bid. If the bid is submitted pursuant to this paragraph, within 2 hours after the completion of the opening of the bids, the contractors who submitted the three lowest bids must submit a list containing the name of each first tier subcontractor who will provide labor or a portion of the work on the public work to the prime contractor for which the first tier subcontractor will be paid an amount exceeding 1 percent of the prime contractor's total bid or $50,000, whichever is greater, and the number of the license issued to the first tier subcontractor pursuant to chapter 624 of NRS.at the initiation of the contract." NRS 383.141.

on public works projects to ensure that the prime contractor does not subcontract out more than 49 percent of the contract. For these reasons, prime contractors on most large NDOT construction contracts provide information on the subcontractors they intend to use, the dollars awarded to subcontractors and the payments made to subcontractors. Although certain types of specialty subcontractors do not count toward the subcontractor maximum, NDOT often receives subcontract dollar amounts for those firms as well.

Some types of work on a construction project are categorized as "service providers." State subcontractor listing requirements and rules concerning tracking of subcontract dollars do not apply to those types of work. One such area is trucking. NDOT receives some information about trucking firms but does not receive complete information on the dollars received by each trucking firm that participates on a project. NDOT also receives some information about materials suppliers, but this information is not complete.

Construction projects managed by NDOT Districts, as well as certain NDOT road maintenance and other projects, are typically handled as "agreements" rather than "contracts." For the utilization analysis, the primary data source for construction-related agreements was an Agreements Database maintained by NDOT Administrative Services, augmented by information provided by NDOT staff managing these projects. Keen Independent was able to obtain subcontract information for the largest District construction projects from sources including hard copy contract files and Contract Compliance Unit data.

NDOT design-build projects are typically "agreements." The NDOT Contract Compliance Unit was able to provide prime contract and subcontract information for those projects. For purposes of the disparity study, results for design-build projects are included with construction contracts.

After collecting the necessary data about transportation-related construction prime contracts and subcontracts, the study team created electronic prime contract and subcontract tables for use in the utilization and other analyses.

Engineering-related contracts. The study team also collected data on transportation-related engineering contracts. NDOT administers this consulting work through consultant "agreements." Keen Independent identified engineering-related agreements from an Agreement Database provided by NDOT Administrative Services. Administrative Services created a spreadsheet for consulting and other agreements that had activity (awards, amendments or task orders) during the 2007 through June 2012 study period. Keen Independent reviewed these data to develop a refined list of agreements.

- NDOT administered some on-call agreements during the study period. Keen Independent only included in the utilization analysis those task orders under on-agreements that were issued during the study period. [2] This included task orders issued in 2007- June 2012 for agreements awarded prior to 2007.

- When NDOT augmented pre-2007 agreements through amendments (after January 1, 2007), the dollar amounts for these amendments were included in the utilization analysis.

[2] Keen Independent treated each task order as a stand-alone contract element.

- Many engineering-related agreements in the utilization analysis were not on-call and were awarded within the January 1 through June 30 time period. The total dollar amounts for these agreements including any amendments were counted in the utilization analysis during the study period.

Keen Independent examined hard copy (and scanned or micro-filmed) contract documents maintained by Records Management to collect additional information about the agreements. The data compilation included project descriptions and information about the physical location of any site-specific work. Keen Independent also reviewed monthly invoices to determine names, dollars and work types of for prime consultants and subconsultants (examining invoices through late 2012 for work awarded prior to July 1, 2012).

Keen Independent then asked NDOT project managers for each specific agreement to review and supplement this information, including any additional data concerning subconsultants. The final data for engineering agreements included the following information about the agreement or task order:

- Agreement number (and task order or amendment number);
- Description of work;
- Award date;
- Award and payment amounts;
- Whether the contract involved federal funding;
- Whether DBE contract goals were set on the project (and level of goal);
- Prime consultant name and address;
- Name, address, work type and dollar amount for each identified subconsultant.

After collecting the necessary data about transportation-related construction prime contracts and subcontracts, the study team created electronic prime contract and subcontract tables for use in the utilization and other analyses.

B. Local Public Agency (LPA) Program Contracts

Under its Stewardship Agreement with FHWA, NDOT administers FHWA funding that goes to local agencies in the state. NDOT established the Local Public Agency (LPA) Program to administer these local agency agreements. Cities, counties, regional transportation commissions and other local agencies award transportation contracts and NDOT reimburses agencies for those contracting dollars using FHWA or state funds. [3]

Local agencies are responsible for advertising, awarding and managing engineering and construction contracts awarded using money from the LPA Program, with varying levels of NDOT oversight depending on the type of work involved. When FHWA funds are involved, FHWA requires local agencies to comply with federal requirements including implementation of the Federal DBE

[3] Sometimes LPA Program funds go to reimburse local agencies for work performed with their own forces. Such work is not included in the study.

Program. NDOT funds some of the local agency projects solely using state funds. In addition to any federal requirements, Nevada state law governs local government public works contracting.

Data collection. NDOT's Administrative Services provided a list of LPA Program agreements with activity during the 2007 through June 2012 study period. These LPA Program data identified the local agency, a project description, funding source and agreement date.

Keen Independent then reviewed hard copy files in Records Management to confirm the above information and collect any data on engineering or construction contracts or whether any work was contracted out. NDOT's hard copy contract files sometimes included information about prime contractors and subcontractors (for subcontractors, mostly on engineering-related contracts).

After compiling the data available from NDOT records, Keen Independent and NDOT reviewed project descriptions to ensure that the type of work involved was consistent with the transportation-related engineering and construction contracts examined in the disparity study. LPA agreements for work such as railroad improvements or visitors centers were removed from the utilization data at this point.

Keen Independent then worked with NDOT staff to forward the compiled information for each LPA contract to each local agency with an LPA agreement during the study period.

- Keen Independent developed a letter of introduction and a data request form for each construction and engineering contract that local agencies awarded using money from the LPA Program during the study period. The data request form included identifying information about each contract. Data requests went to more than 30 local agencies.

- Local agency representatives were asked to confirm that the agency awarded engineering- and construction-related work, and if so, the award amount or actual payment amounts to all prime contractors and subcontractors involved in the relevant project phases. (Sometimes agencies performed all of the work with their own forces.)

- The request also asked staff to provide addresses and contact information for all prime contractors and subcontractors involved with the project.

- Local agencies were asked to e-mail the data request forms back to Keen Independent or NDOT. Contact information for Keen Independent and NDOT staff was provided if local agencies had any questions.

Local agency response. Keen Independent received responses for nearly all LPA Program contracts.

- Although Keen Independent did not receive responses from four local agencies — Humboldt and Eureka counties, the Town of Minden and City of Yerington — the study team could analyze contracts for those agencies based on data collected from NDOT hard copy files.

- Data for one LPA Program agreement, which was awarded by the Reno-Sparks Indian Colony, could not be included in the analysis because there were no data provided for the agreement.

C. NDOT Bid and Proposal Data

Keen Independent analyzed firms bidding and proposing on NDOT construction contracts and engineering-related agreements.

- NDOT provided bidder information for construction contracts from 2007 through June 2012. For each individual contract, in PDF form, NDOT provided a list of bidders, their bids and identified instances when NDOT rejected a bid. Keen Independent created a database from the PDF documents. From those data, Keen Independent examined more than 700 bidders on more than 140 NDOT construction contracts.

- Keen Independent also attempted to collect information concerning proposers on NDOT engineering-related contracts from hard copy records maintained in Records Management agreement files. For a sample of 20 agreements, there were 12 agreements larger than $250,000 with comprehensive proposal information. Data for these 12 agreements included 42 qualification statements or proposal submissions from 30 different firms. Keen Independent also documented NDOT's evaluation of these submissions.

D. Characteristics of Utilized Firms and Bidders

For each firm identified as working on an NDOT or local agency contract, Keen Independent attempted to collect business characteristics including the race, ethnicity and gender of the business owner. Keen Independent also collected information about bidders and proposers (including those not receiving work). Firm-level data included company name, address, race/ethnicity and gender ownership, whether the firm was DBE certified, and when available, the primary type of work performed by the firm, length of time in business, size and other characteristics.

Keen Independent compiled company information from multiple sources. NDOT and local agencies provided contact and other information on businesses that they utilized as prime contractors and subcontractors. Keen obtained additional information about utilized firms from the State Contractor's Licensing Board, Dun & Bradstreet and other sources. Keen Independent also examined data collected on firms utilized in pre-2007 NDOT contracts developed as part of the 2007 Disparity Study.

Collecting data on the race, ethnicity and gender ownership of utilized firms was key to building the database on firm characteristics. Sources of information to determine whether firms were owned by minorities or women (including race/ethnicity) and whether MBE/WBEs were DBE-certified, included:

- Study team telephone interviews with firm owners and managers (attempted with each utilized firm);
- Information from the 2013 Nevada Unified Certification Program database;
- NDOT data on firms certified as DBEs in the past (whether or not they were currently certified);
- Information about the DBE status of subcontractors provided by prime contractors on NDOT construction and engineering contracts;
- DBE certification databases from other states;
- Data from the Federal Contractor Registry;
- MBE directories from the City of Las Vegas and the Nevada Minority Supplier Development Council;
- Vendor databases developed in recent disparity studies conducted in California and Oregon;
- Information about firms collected in the 2007 NDOT Disparity Study;
- Information from Dun & Bradstreet; and
- NDOT staff review.

E. NDOT Review

NDOT reviewed Keen Independent utilization data during several stages of the study process. The study team met with NDOT staff multiple times to review the data collection process, information that the study team gathered and summary results. NDOT staff also reviewed contract and vendor information. Keen Independent reviewed and incorporated NDOT feedback throughout the study process.

F. Data Limitations

Three limitations concerning contract data collection are worth noting.

- **NDOT construction contracts.** NDOT maintains comprehensive records about its prime contracts and most areas of subcontracting for its larger construction contracts. As previously discussed, state law requires listing of certain subcontractors at time of award of a construction contract as well as tracking of the value of subcontracts over the course of a contract. Even so, NDOT commitment and payment data for truckers, suppliers and certain other subcontract disciplines on its construction contracts were not complete. Also, NDOT also not routinely track subcontractor utilization on small District-awarded construction contracts (which are typically state-funded). These limitations have little effect on Keen Independent's overall analysis of utilization and availability on NDOT construction contracts, as the areas of data limitations also tend to be low dollar volume.

- **NDOT engineering contracts.** NDOT does not routinely track subconsultant use on engineering-related contracts, so Keen Independent examined the monthly invoices prime consultants submitted to NDOT to identify dollars paid to subconsultants. Although this data collection method might not have captured all subconsultant utilization, it was the best method available. Any limitations would not have a meaningful effect on overall utilization results.

- **LPA Program contracts.** Finally, NDOT does not typically collect information about the engineering firms and construction contractors local agencies use on LPA Program contracts. Keen Independent directly communicated with these local agencies to obtain the contract data they maintained. Keen Independent was able to review data for all but one small local agency receiving funds through the LPA Program, but not all local agencies were able to provide comprehensive information about dollars going to individual prime contractors and subcontractors. Contracts awarded through the LPA Program were a small part of the total dollars examined, so any such data limitations would not have a meaningful effect on the study results.

Keen Independent recommended steps for NDOT to improve its data collection methods in the future.

APPENDIX D.
General Approach to Availability Analysis

The study team used a custom census approach to analyze the availability of minority- and women-owned business enterprises (MBE/WBEs) for transportation-related construction and engineering prime contracts and subcontracts that NDOT and local agencies awarded between 2007 and June 2012. Appendix D further explains the availability methodology and results and discussion presented in Chapter 5. Appendix D includes discussions of:

A. General approach to collecting availability information;

B. Development of the interview instruments;

C. Execution of interviews; and

D. Additional considerations related to measuring availability.

Keen Independent provides the interview instrument at the end of the appendix.

A. General Approach to Collecting Availability Information

Keen Independent collected information from firms about their availability for NDOT and local government contracts through online and telephone interviews.

Listings. The firms to be contacted in the availability interviews primarily came from three sources:

- Company representatives who had previously identified themselves to NDOT as interested in learning about future work (by subscribing to NDOT's Contractor Bulletins);
- Businesses that held contractors licenses in Nevada in fields pertinent to NDOT transportation construction contracts; and/or
- Businesses that Dun & Bradstreet identified in certain transportation contracting-related subindustries in Nevada (D&B's Hoover's business establishment database).

The availability analysis focused on companies in Nevada doing types of work relevant to NDOT and local agency transportation construction and engineering contracts (including subcontracts, trucking and supplies for those contracts). As such, Keen Independent did not include all of the listings in the Contractor Bulletins, contractors license database, or Dun & Bradstreet database in the availability interviews, as described below.

NDOT Contractor Bulletins. Individuals and businesses interested in learning about NDOT construction- and engineering-related contracting opportunities can subscribe to NDOT's Contractor Bulletins, an emailed newsletter. NDOT provided a Bulletin subscription list of about 3,000 subscribers as of December 2012. Subscribers included individuals from construction, engineering and related firms.

Because Keen Independent identified Nevada as the relevant geographic market area for the disparity study, the availability interviews focused on businesses that had establishments in Nevada. Keen Independent only included Bulletin listings for individuals or companies with Nevada mailing addresses. Keen Independent also

attempted to exclude from the NDOTs Contractor Bulletins any listings for government agencies or not-for-profit organizations (including contacts from NDOT).

Nevada State Contractors Board. Construction firms performing certain types of work must be licensed by the Nevada State Contractors Board. The Contractors Board provides information about license-holders to the public.

Keen Independent first determined the types of licensed work involved in NDOT transportation construction contracts. The study team then purchased a list of contractors holding those licenses.

From review of the types of companies working on NDOT transportation construction contracts, Keen Independent determined that NDOT transportation construction contracts mostly involved contractors holding certain A or C licenses (as well as AB licenses). Keen Independent developed a list of companies that held the following licenses: A2, A-4, A-5, A-7, A-8, A-9, A-11, A-12, A-13, A-14, A-16, A-21, AB, C-2 (certain specialties), C-4 (certain specialties), C-5, C-6, C-9, C-10, C-14 and C-31. These license categories include highway and bridge work, diamond and core drilling, excavation and grading, sealing and striping, piers and foundations, recycling asphalt, excavating and grading, wrecking, steel work, paving, fencing and guardrails, certain types of electrical contracting, certain types of painting, concrete work, erecting signs, movement of buildings, and landscape contracting. Work such as trucking and materials supply are not licensed by the Contractors Board.

The Contractors Board responded to Keen Independent's request by sending a list of firms for each of the above license types (more than 4,700 records pertaining to relevant types of licenses). Because construction companies often hold more than one type of license, Keen Independent consolidated data on multiple license types for individual firms. After this consolidation, the list of licensed firms totaled 3,811. Keen Independent then selected firms with locations in Nevada to match the relevant geographic market area for the study.

The Contractors Board license data provided company name, address and phone number, but not email address. Keen Independent was able to obtain email addresses for some companies through other sources such as Dun & Bradstreet and the Nevada Chapter of the Associated General Contractors of America.

Dun & Bradstreet Hoover's database. Dun & Bradstreet (D&B), through its Hoover's affiliate, maintains a very large database of businesses in the United States (the largest commercial database of its kind). The study team used D&B listings to supplement the companies identified in the NDOT Contractor Bulletins and Contractors Board databases. This was especially important for firms performing types of work that do not require contractors licenses, including engineering and related firms, trucking firms and materials suppliers.

As described above, Keen Independent determined the types of work involved in NDOT contract elements by reviewing prime contract and subcontract dollars that went to different types of businesses during the study period. Dun & Bradstreet classifies types of work by 8-digit work specialization codes.[1] Figure D-1 on the following page identifies the work specialization codes the study team determined were the most related to the study contract dollars.

[1] D&B has developed 8-digit industry codes that provide more precise definitions of firm specializations than the 4-digit SIC codes or the NAICS codes that the federal government has prepared.

Figure D-1. D&B 8-digit codes for availability list source

Code	Description	Code	Description
7119906	Soil testing services	29510204	Concrete, bituminous
7820207	Sodding contractor	29510206	Road materials, bituminous (not from ref.)
7829903	Landscape contractors	32720000	Concrete products, nec
14420000	Construction sand and gravel	32720710	Pier footings, prefabricated concrete
14420200	Gravel and pebble mining	32720711	Piling, prefabricated concrete
14420201	Gravel mining	32729903	Paving materials, prefabricated concrete
16110000	Highway and street construction	32729904	Prestressed concrete products
16110100	Highway signs and guardrails	32730000	Ready-mixed concrete
16110101	Guardrail construction, highways	33120400	Structural and rail mill products
16110102	Highway and street sign installation	33120405	Structural shapes and pilings, steel
16110200	Surfacing and paving	33120500	Bar, rod, and wire products
16110202	Concrete construction: roads, hwys, sidewalks	34410200	Fabricated structural metal for bridges
16110203	Grading	34410201	Bridge sections, prefabricated, highway
16110204	Highway and street paving contractor	34490100	Fabricated bar joists, concrete reinforcing bars
16110205	Resurfacing contractor	34490101	Bars, concrete reinforcing: fabricated steel
16110206	Sidewalk construction	42120000	Local trucking, without storage
16110207	Gravel or dirt road construction	42120200	Liquid transfer services
16119900	Highway and street construction, nec	42120201	Liquid haulage, local
16119901	General contractor, hwy and street construction	42120202	Petroleum haulage, local
16119902	Highway and street maintenance	42129904	Draying, local: without storage
16119903	Highway reflector installation	42129905	Dump truck haulage
16220000	Bridge, tunnel, and elevated hwy construction	42129908	Heavy machinery transport, local
16229900	Bridge, tunnel, and elevated highway, nec	42129912	Steel hauling, local
16229901	Bridge construction	42130000	Trucking, except local
16229902	Highway construction, elevated	42139902	Building materials transport
16229903	Tunnel construction	42139904	Heavy hauling, nec
16229904	Viaduct construction	42139905	Heavy machinery transport
16239902	Manhole construction	42139908	Liquid petroleum transport, non-local
16290400	Land preparation construction	49590102	Sweeping service: road, airport, parking lot, etc.
16299901	Blasting contractor, except building demolition	50320100	Paving materials
16299902	Earthmoving contractor	50320101	Asphalt mixture
16299904	Pile driving contractor	50320102	Paving mixtures
16299906	Trenching contractor	50320504	Concrete mixtures
17210200	Commercial painting	50329901	Aggregate
17210300	Industrial painting	50329904	Cement
17210302	Bridge painting	50329905	Gravel
17210303	Pavement marking contractor	50329908	Stone, crushed or broken
17310000	Electrical work	50399912	Soil erosion control fabrics
17319903	General electrical contractor	50510209	Forms, concrete construction (steel)
17410100	Foundation and retaining wall construction	50630504	Signaling equipment, electrical
17410102	Retaining wall construction	50990304	Reflective road markers
17710000	Concrete work	52110502	Cement
17710200	Curb and sidewalk contractors	52110506	Sand and gravel
17710201	Curb construction	73530000	Heavy construction equipment rental
17710202	Sidewalk contractor	73530100	Oil equipment rental services
17710301	Blacktop (asphalt) work	73530101	Oil field equipment, rental or leasing
17719901	Concrete pumping	73530102	Oil well drilling equipment, rental or leasing
17719902	Concrete repair	73890200	Inspection and testing services
17719904	Foundation and footing contractor	73890800	Mapmaking services
17910000	Structural steel erection	73890801	Mapmaking or drafting, including aerial
17919900	Structural steel erection, nec	73890802	Photogrammatic mapping
17919902	Concrete reinforcement, placing of	73899909	Crane and aerial lift service
17919905	Iron work, structural	73899921	Flagging service (traffic control)
17919907	Precast concrete struct. frmg or panels, placing	73899937	Pilot car escort service
17940000	Excavation work	87110000	Engineering services
17949901	Excavation and grading, building construction	87110400	Construction and civil engineering
17950000	Wrecking and demolition work	87110402	Civil engineering
17959901	Concrete breaking for streets and highways	87110404	Structural engineering
17959902	Demolition, buildings and other structures	87119903	Consulting engineer
17990900	Building site preparation	87120101	Architectural engineering
17990901	Boring for building construction	87130000	Surveying services
17990903	Shoring and underpinning work	87139900	Surveying services, nec
17999904	Building mover, including houses	87139901	Photogrammetric engineering
17999906	Core drilling and cutting	87310302	Environmental research
17999907	Dewatering	87330201	Archeological expeditions
17999908	Diamond drilling and sawing	87340000	Testing laboratories
17999912	Fence construction	87349909	Soil analysis
17999929	Sign installation and maintenance	87419902	Construction management
17999932	Welding on site	87420402	Construction project management consultant
29110501	Asphalt or asphaltic materials, made in refineries	87420410	Transportation consultant
29110505	Road materials, bituminous	87480200	Urban planning and consulting services
29110506	Road oils	87480204	Traffic consultant
29510000	Asphalt paving mixtures and blocks	87489905	Environmental consultant
29510200	Paving mixtures	89990700	Earth science services
29510201	Asphalt/asphaltic pvng mixtures (not from ref.)	89990701	Geological consultant
29510202	Coal tar paving materials (not from refineries)	89990702	Geophysical consultant
29510203	Concrete, asphaltic (not from refineries)		

Keen Independent obtained D&B contact information for firms in the Hoover's database not previously identified from the Contractor Bulletins or the Contractors Board data. Only firms with locations within Nevada were included in the D&B data request. D&B provided phone numbers for these businesses as well as email addresses for some businesses. Keen Independent obtained 5,169 business listings from this source (including duplicate records).

Total listings. Keen Independent attempted to consolidate information when a firm had multiple listings among and within these data sources. After consolidation, the data sources provided more than 7,300 unique listings for the availability interviews.

Keen Independent did not draw a sample of those firms for the availability analysis; rather, the study team attempted to contact each business identified through the methods described above.

Online interviews. Keen Independent used the following steps to complete online interviews with business establishments.

- When the source data included email addresses for firms, the study team sent emails that contained an interview explanation and request (from the NDOT Executive Director Rudy Malfabon) and a link to the online interview.
- When source data did not include the email address for a company, Keen Independent searched for email addresses in other sources (for example, D&B data and the membership list of the Nevada Chapter of the Associated General Contractors of America).
- After receiving an email, some firms immediately responded by completing online interviews.
- When a contact did not respond within four to seven days of receiving an email, the study team followed up with email reminders. If the contact still did not respond, the study team followed up with phone calls. Follow-up phone calls asked firms for updated email addresses. Up to five phone calls were made to attempt to reach the company. Some firms indicated in the follow-up phone calls that they did not work in the transportation contracting industry, so no further interview was necessary.

  Keen Independent retained Aspen Media & Market Research (Aspen) to make these follow-up phone contacts. Aspen has considerable experience conducting similar telephone calls in past disparity studies. Interviewers indicated that the calls were made on behalf of the Nevada Department of Transportation.
- Source data for some firms only included phone numbers. Aspen contacted those firms by telephone to ask them to participate in the online interviews. (Up to five phone calls for each firm.)
- Keen Independent emailed links to the online survey to the additional firms providing email addresses. When a company representative indicated to Aspen (over the phone) that the business was not interested or involved in transportation contracting work, the company was not asked to complete the other interview questions. (Such interviews were treated as complete at that point.)

Telephone interviews. Keen Independent retained Customer Research International (CRI) to conduct telephone interviews with business establishments that:

- Were initially contacted via email and did not respond after repeated email and telephone reminders;
- Had been contacted by telephone and agreed to complete online surveys, but had not responded after repeated reminders; or
- Indicated that they preferred to complete telephone interviews via telephone phone.

Other avenues to complete an interview. Even if a company was not directly contacted by the study team, business owners could ask to complete an availability interview for their transportation contracting-related companies.

- After completing an online interview, some business owners asked if they could complete another online interview for a second business they owned. Keen Independent responded to these requests by adding the second company to the online interview list.
- Keen Independent posted information about the online interviews on the disparity study website maintained throughout the project. Interested companies could download a questionnaire from the website.
- Keen Independent also maintained a "hot line" that anyone could call for more information about any aspect of the study.
- Firm owners could also request that questionnaires be faxed or emailed to them (and a few completed interviews through these avenues).

A small number of firms (fewer than 10) completed interviews via fax.

B. Development of the Interview Instruments

Keen Independent developed the interview instruments through the following steps:

- Keen Independent drafted an availability interview instrument to collect business information from businesses in the construction and engineering fields.
- NDOT staff reviewed the draft interview instrument.
- Keen Independent tested the online interview instrument in a pilot survey involving 357 business establishments. (Responses from the pilot survey were included in the final availability database.)
- Keen Independent refined the instrument based on experience with the pilot survey.

The final online interview instrument is presented at the end of this appendix. Keen Independent followed a similar process for developing the telephone version of the interview.

Interview structure. The availability interview included 12 sections. The study team did not know the race, ethnic or gender of the business owner when emailing or calling a business establishment. Obtaining that information was a key component of the interview.

Key interview sections included the following.

- **Contact information.** The interview began by collecting complete contact information for the establishment and the individual who completed the interview.
- **Identification of purpose.** The interviews began by identifying NDOT as the interview sponsor and describing the purpose of the study (i.e., "compiling a list of companies interested in construction, maintenance or design on highway and other state or local government transportation-related projects").
- **Verification of correct business name.** For phone interviews, Aspen and/or CRI confirmed that the business reached was in fact the business sought out.
- **Verification of work related to transportation-related projects.** The interviewer asked whether the organization does work or provides materials related to construction, maintenance, or design on transportation-related projects (Question 1). Interviewers continued the interview with businesses that responded "yes" to that question.
- **Verification of for-profit business status.** The survey then asked whether the organization was a for-profit business as opposed to a government or not-for-profit entity (Question 2). Interviewers continued the interview with businesses that responded "yes" to that question.
- **Identification of main lines of business.** Businesses then chose from a list of work types that their firm performed in categories of construction-related work, engineering-related work, and supply activities. In addition to choosing all areas that the firms did work, the study team asked businesses to briefly describe their main line of business as an open-ended question.
- **Sole location or multiple locations.** The interviewer asked business owners or managers if their businesses had other locations and whether their establishments were affiliates or subsidiaries of other firms.
- **Past bids or work with government agencies and private sector organizations.** The survey then asked about bids and work on past government and private sector contracts. The questions were asked in connection with both prime contracts and subcontracts.
- **Qualifications and interest in future transportation work.** The interviewer asked about businesses' qualifications and interest in future work with NDOT and other government agencies in connection with both prime contracts and subcontracts.
- **Geographic areas.** Next, interviewees were asked whether they could do work in several geographic areas in Nevada: Southern Nevada, Northwestern Nevada and Northeastern Nevada.
- **Largest contracts.** The study team asked businesses to identify the value of the largest transportation-related contract or subcontract on which they had bid on or had been awarded in Nevada during the past five years.

- **Ownership.** Businesses were asked if at least 51 percent of the firm was owned and controlled by women and/or minorities. If businesses indicated that they were minority-owned, they were also asked about the race/ethnicity of ownership. The study team reviewed reported ownership against other available data sources such as DBE and MBE directories.

- **Business background.** The study team asked businesses to identify the approximate year in which they were established. The interviewer asked several questions about the size of businesses in terms of their revenues and number of employees. For businesses with multiple locations, this section also asked about their revenues and number of employees across all locations.

- **Potential barriers in the marketplace.** Establishments were asked a series of questions concerning general insights about the marketplace and NDOT contracting practices including loans, bonding and licensing. The interview also included an open-ended question asking for any additional barriers or general thoughts about contracting in Nevada. In addition, the interview included a question asking whether interviewees would be willing to participate in a follow-up interview about marketplace conditions.

C. Execution of Interviews

Keen Independent began by sending electronic interviews to any firms for which emails were obtained through NDOT or D&B. Any firms that did not answer the initial email survey or either of the two follow-up reminders were then provided to Aspen to verify that the firms worked in the industry and that the email on file was correct. If Aspen obtained an updated email and the firms were still unresponsive, they were sent to CRI to conduct a full telephone interview.

Keen Independent held planning and training sessions via telephone with both Aspen and CRI executives before they began conducting the availability interviews. Aspen began making requests for email addresses in March of 2013 and provided daily updates with any email addresses obtained so that Keen Independent could send firms a link to complete the survey online. CRI began conducting full availability interviews in April of 2013. CRI provided Keen Independent with weekly data reports.

To minimize non-response, Aspen and CRI made at least five attempts at different times of day and on different days of the week to successfully reach each business establishment. Aspen and CRI identified and attempted to interview an available company representative such as the owner, manager, or other key official who could provide accurate and detailed responses to the questions included in the interview.

Establishments that the study team successfully contacted. Figure D-2 presents the disposition of the 7,355 businesses the study team attempted to contact for availability interviews.

Note that the following analysis is based on business counts after Keen Independent removed duplicate listings. The size of the initial contact list through completed interviews is somewhat larger before removing duplicate listings or responses for a business.

Figure D-2.
Disposition of attempts to interview business establishments

Note:
Study team made at least five attempts to complete an interview with each establishment.

Source:
Keen Independent from 2013 availability Interviews.

	Number of firms	Percent of business listings
Beginning list (unique firms)	**7,355**	
Less non-working phone numbers	1,218	
Less wrong number	169	
Firms with working phone numbers	**5,968**	**100.0** %
Less no answer	1,973	33.1
Less could not reach responsible staff member	11	0.2
Less language barrier	25	0.4
Less unreturned fax/email	41	0.7
Firms successfully contacted	**3,918**	**65.7** %

Non-working or wrong phone numbers. Some of the business listings that the study team attempted to contact were:

- Non-working phone numbers (1,218); or
- Wrong numbers for the desired businesses (169).

Some non-working phone numbers and wrong numbers reflected businesses going out of business or changing their names and phone numbers between the time that a source listed them and the time that the study team attempted to contact them.

Working phone numbers. As shown in Figure D-2, there were 5,968 businesses with working phone numbers that the study team attempted to contact. The study team was unsuccessful in contacting some of those businesses for various reasons:

- Some businesses could not be reached after at least five attempts at different times of the day and on different days of the week (1,973) establishments.
- For a small number of businesses (11), a responsible staff person could not be reached after repeated attempts.
- A small number of interviews (25) could not be completed due to language barriers. (Note that telephone interviews could be completed in English and Spanish.)
- The study team sent hardcopy fax or e-mailed copies of the availability interviews upon request. There were 41 businesses that requested such surveys that did not return them.

After taking those unsuccessful attempts into account, the study team was able to successfully contact 3,918 businesses, or about two-thirds of those with valid phone listings.

Establishments included in the availability database. Figure D-3 presents the disposition of the 3,918 businesses that the study team successfully contacted and how that number resulted in the 671 businesses that the study team included in the availability database.

Figure D-3.
Disposition of successfully contacted businesses

Source:

Keen Independent from 2013 availability Interviews.

	Number of firms
Firms successfully contacted	**3,918**
Less businesses not interested in discussing availability for NDOT work	374
Firms that completed interviews about business characteristics	**3,544**
Less no road and highway related work	2,619
Less not a for-profit business	254
Firms included in availability database	**671**

Establishments not interested in discussing availability for NDOT work. Of the 3,918 businesses that the study team successfully contacted, 374 were not interested in discussing their availability for NDOT work. Thus, 3,544 of successfully-contacted businesses (90%) completed availability interviews.

Businesses included in the availability database. Among the completed interviews, many firms were excluded from the final availability database because they didn't perform work related to transportation contracting.

- Keen Independent excluded 2,619 businesses that indicated that they were not involved in transportation contracting work.
- Of the completed interviews, 254 indicated that they were not a for-profit business (including non-profits, government agencies or homes). Interviews ended when respondents reported that their establishments were not for-profit businesses.

After those final screening steps, the interview effort produced a database of 671 businesses potentially available for NDOT work.

Coding responses from multi-location businesses. As described above, there were multiple responses from some firms. Responses from different locations of the same business were combined into a single, summary data record after reviewing the multiple responses. When possible, the study team selected responses from the respondent with the highest position in the company.

D. Additional Considerations Related to Measuring Availability

The study team made several additional considerations related to its approach to measuring availability, particularly as they related to NDOT's implementation of the Federal DBE program.

Not providing a count of all businesses available for NDOT work. The purpose of the availability interviews was to provide precise and representative estimates of the percentage of MBE/WBEs potentially available for NDOT work. The availability analysis did not provide a comprehensive listing of every business that could be available for NDOT work and should not be used in that way. Federal courts have approved the custom census approach to measuring availability that Keen Independent used in this study.

The United States Department of Transportation's (USDOT's) "Tips for Goals Setting in the Disadvantaged Business Enterprise (DBE) Program" also recommends a similar approach to measuring availability for agencies implementing the Federal DBE Program.[2]

Not using MBE/WBE or DBE directories, prequalification lists or bidders lists. USDOT guidance for determining MBE/WBE availability recommends dividing the number of businesses in an agency's DBE directory by the total number of businesses in the marketplace, as reported in U.S. Census data. As another option, USDOT suggests using a list of prequalified businesses or a bidders list to estimate the availability of MBE/WBEs for an agency's prime contracts and subcontracts.

The methodology applied in this study takes a custom census approach to measuring availability and adds several layers of refinement to a simple head count approach. For example, the interviews provide data on businesses' qualifications, relative bid capacity, and interest in NDOT work, which allowed the study team to take a more refined approach to measuring availability. Court cases involving state operation of the Federal DBE Program have approved the use of a custom census approach to measuring availability.

Note that Keen Independent used MBE and DBE directories and other sources of information to confirm information about the race/ethnicity and gender of business ownership that it obtained from availability interviews.

Using D&B lists. Dun & Bradstreet was one source of business listings in Keen Independent's availability analysis. Note that D&B does not require firms to pay a fee to be included in its listings — it is completely free to listed firms. D&B provides the most comprehensive private database of business listings in the United States. Even so, the database does not include all establishments operating in Nevada due to the following reasons:

- There can be a lag between formation of a new business and inclusion in D&B, meaning that the newest businesses may be underrepresented in the sample frame.
- Although D&B includes home-based businesses, those businesses are more difficult to identify and are thus somewhat less likely than other businesses to be included in D&B listings. Small, home-based businesses are more likely than large businesses to be minority- or women-owned, which again suggests that MBE/WBEs might be underrepresented in the final availability database.

Keen Independent is not able to quantify how much, if any, underrepresentation of MBE/WBEs exists in the final availability database. However, Keen Independent concludes that any such underrepresentation would be minor and would not have a meaningful effect on the availability and disparity analyses presented in this report. In addition, Keen Independent also used the NDOT Contractor Bulletins mailing list and State Contractors Board listing of firms with relevant business licenses as sources of business listings for the availability analysis.

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[2] Tips for Goals Setting in the Disadvantaged Business Enterprise (DBE) Program, http://www.osdbu.dot.gov/dbeprogram/tips.cfm

Selection of specific subindustries. Keen Independent identified specific subindustries when compiling business listings from Dun & Bradstreet. D&B provides highly specialized, 8-digit codes to assist in selecting firms within specific specializations. However, there are limitations when choosing specific D&B work specialization codes to define sets of establishments to be interviewed, which leave some businesses off the contact list. However, Keen Independent use of the NDOT Contractor Bulletins mailing list and business license data for Nevada mitigates this potential concern.

Non-response bias. An analysis of non-response bias considers whether businesses that were not successfully interviewed are systematically different from those that were successfully interviewed and included in the final data set. There are opportunities for non-response bias in any survey effort. The study team considered the potential for non-response bias due to:

- Research sponsorship;
- Work specializations; and
- Language barriers.

Research sponsorship. Interviewers introduced themselves by identifying NDOT as the interview sponsor because businesses may be less likely to answer somewhat sensitive business questions if the interviewer was unable to identify the sponsor.

Work specializations. Businesses in highly mobile fields, such as trucking, may be more difficult to reach for availability interviews than businesses more likely to work out of fixed offices (e.g., engineering firms). That assertion suggests that response rates may differ by work specialization. Simply counting all interviewed businesses across work specializations to determine overall MBE/WBE availability would lead to estimates that were biased in favor of businesses that could be easily contacted by email or telephone.

However, work specialization as a potential source of non-response bias in the availability analysis is minimized because the availability analysis examines businesses within particular work fields before determining an MBE/WBE availability figure. In other words, the potential for trucking firms to be less likely to complete an interview is less important because the percentage of MBE/WBE availability is calculated within trucking before being combined with information from other work fields in a dollar-weighted fashion. In this example, work specialization would be a greater source of non-response bias if particular subsets of trucking firms were less likely than other subsets to be easily contacted by telephone.

Language barriers. Businesses were given the opportunity to complete the interview in Spanish with both CRI and Aspen (only the online survey was not available in Spanish). It does not appear that any language barriers had a material effect on responses.

Response reliability. Business owners and managers were asked questions that may be difficult to answer, including questions about revenues and employment.

Keen Independent explored the reliability of interview responses in a number of ways. For example:

- Keen Independent reviewed data from the availability interviews in light of information from other sources such as the DBE database and other vendor information that the study team collected from NDOT. This includes data on the race/ethnicity and gender of the owners of DBE-certified businesses and was compared with interview responses concerning business ownership.
- Keen Independent examined NDOT and local agency contract data to further explore the largest contracts and subcontracts awarded to businesses that participated in the availability interviews. Keen Independent compared interview responses about the largest contracts that businesses won during the past five years with actual NDOT and local agency contract data.
- NDOT reviewed vendor data that the study team collected and compiled as part of the availability analysis.

A copy of the interview instrument follows.

NDOT Disparity Study — Availability Interview Instrument

The Nevada Department of Transportation (NDOT) is compiling a list of companies interested in construction, maintenance or design on highway and other state or local government transportation-related projects. This comprehensive list helps NDOT comply with USDOT requirements. Responses will only be analyzed in aggregate and your answers to individual questions will not limit your opportunity to bid on future work. Your response to this request will ensure that you are on NDOT's future bulletin list.

If you have questions, please contact Allie Phillips at Keen Independent Research (303-385-8515 or allie.phillips@keenindependent.com), or Yvonne Schuman at NDOT (702-730-3301 or YSchuman@dot.nv.us). NDOT has contracted with Keen Independent Research to collect this information.

Please complete the information below before answering the following questions.

Name of Firm: ______________________________

Address of Firm: ______________________________
Address, City, State ZIP

Your First Name: ______________________________

Your Last Name: ______________________________

Your Position: ______________________________

Phone: ______________________________

Email: ______________________________

1. Does your firm work or provide materials related to construction, maintenance or design on transportation-related projects? (includes trucking and materials supply on highway and other transportation projects)

   ☐ Yes ☐ No

2. Is your firm a business, as opposed to a non-profit organization, a foundation or a government office?

   ☐ Yes ☐ No

IF RESPONDENT ANSWERS NO TO QUESTION 1 OR 2, SKIP TO END OF SURVEY.

IF YES TO QUESTIONS 1 AND 2, CONTINUE TO QUESTION 3.

Type of Work

3. What types of work does your firm perform related to road and bridge construction, maintenance or design? Please check all that apply.

Construction-related

- ❑ Demolition
- ❑ Excavation, grading, drainage or other land prep related to road work
- ❑ Drilling and foundations related to road work
- ❑ Asphalt paving and other heavy construction related to road or bridge work
- ❑ Milling and grinding of road surfaces
- ❑ Concrete paving
- ❑ Concrete flatwork (sidewalks and curb and gutter)
- ❑ Structural concrete work
- ❑ Structural steel work related to road or bridge projects
- ❑ Reinforcing steel work related to road or bridge projects
- ❑ Electrical work related to roads such as lighting and signal installation
- ❑ Painting for road or bridge projects
- ❑ Sealing, striping or pavement marking
- ❑ Installation of highway fences, guardrails or signs
- ❑ Temporary traffic control
- ❑ Trucking and hauling for road projects
- ❑ Sweeping services
- ❑ Landscaping and related work
- ❑ Erosion control
- ❑ Rental of construction equipment
- ❑ Other ______________________________

Engineering-related

- ❑ Highway or bridge design
- ❑ Transportation planning
- ❑ Construction management related to road or bridge work
- ❑ Environmental consulting
- ❑ Soils and materials testing
- ❑ Surveying and mapping
- ❑ Other ______________________________

4. Does your firm sell: (Check all that apply.)

- ❑ Aggregate materials supply
- ❑ Asphalt, concrete or other paving materials
- ❑ Erosion control materials
- ❑ Traffic or highway signs
- ❑ Traffic signals
- ❑ Fence, guardrail materials
- ❑ Structural steel
- ❑ Reinforcing steel
- ❑ Petroleum
- ❑ Other ______________________________

5. Please briefly describe the main line of business at your firm. In what industry would you classify the primary line of work at your firm?

____

____

6. Does your firm have offices in multiple locations?

☐ Yes ☐ No ☐ Don't know

7. Is your company a subsidiary or affiliate of another firm?

- ☐ Independent
- ☐ Subsidiary of another firm *Parent company name:* ____________________________
- ❑ Affiliate of another firm *Affiliated company name:* __________________________
- ❑ Don't know

Role in Construction, Maintenance, or Engineering Work

8. During the past five years, has your company submitted a bid or a price quote for any part of a contract for a state or local government agency in Nevada?

☐ Yes ☐ No ☐ Don't know

9. [Display if respondent answered 'Yes' to Q8. Otherwise skip to Q10.] Were those bids or price quotes to work as a prime contractor, a subcontractor, a trucker/hauler, or as a supplier? Check all that apply.

☐ Prime Contractor ☐ Trucker / Hauler

☐ Subcontractor ☐ Supplier

☐ Other_______________________________

10. During the past five years, has your company worked on any part of a contract for a state or local government agency in Nevada?

☐ Yes ☐ No ☐ Don't know

11. [Display if respondent answered 'Yes' to Q10. Otherwise skip to Q12.] Did your company work as a prime contractor, a subcontractor, a trucker/hauler, or as a supplier? Check all that apply.

☐ Prime Contractor ☐ Trucker / Hauler

☐ Subcontractor ☐ Supplier

☐ Other_______________________________

12. During the past five years, has your company submitted a bid or a price quote for any part of a contract for a private sector organization in Nevada?

☐ Yes ☐ No ☐ Don't know

13. [Display if respondent answered 'yes' to Q12. Otherwise skip to Q14.] Were those bids or price quotes to work as a prime contractor, a subcontractor, a trucker/hauler, or as a supplier? Check all that apply.

☐ Prime Contractor ☐ Trucker / Hauler

☐ Subcontractor ☐ Supplier

☐ Other_______________________________

14. During the past five years, has your company worked on any part of a contract for a private sector organization in Nevada?

☐ Yes ☐ No ☐ Don't know

15. [Display if respondent answered 'Yes' to Q14. Otherwise skip to Q16] Did your company work as a prime contractor, a subcontractor, a trucker/hauler, or as a supplier? Check all that apply.

- ☐ Prime Contractor
- ☐ Trucker / Hauler
- ☐ Subcontractor
- ☐ Supplier
- ☐ Other_______________________________

16. Thinking about future transportation-related work, is your company qualified and interested in working with NDOT as a prime contractor?

☐ Yes ☐ No ☐ Don't know

17. Thinking about future transportation-related work, is your company qualified and interested in working with cities, counties or other local transportation agencies in Nevada as a prime contractor?

☐ Yes ☐ No ☐ Don't know

18. Thinking about future transportation-related work, is your company qualified and interested in working with NDOT as a subcontractor, trucker/hauler, or supplier?

☐ Yes ☐ No ☐ Don't know

19. Thinking about future transportation-related work, is your company qualified and interested in working with cities, counties or other local transportation agencies in Nevada as a subcontractor, trucker/hauler, or supplier?

☐ Yes ☐ No ☐ Don't know

Geographic Areas Your Company Serves in Nevada

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20. Can your company do work in Southern Nevada (such as the Las Vegas area)?

☐ Yes ☐ No ☐ Don't know

21. Can your company do work in Northwestern Nevada (such as the Reno area)?

☐ Yes ☐ No ☐ Don't know

22. Can your company do work in Northeastern Nevada (such as in the Elko or Ely areas)?

☐ Yes ☐ No ☐ Don't know

23. In rough dollar terms, what was the largest transportation-related contract or subcontract your company was awarded in Nevada during the past five years? Please include any government or private-sector contracts and any contracts not yet completed.

- ☐ $100,000 or less
- ☐ $100,000 up to $500,000
- ☐ $500,000 up to $1 million
- ☐ $1 million up to $2 million
- ☐ $2 million up to $5 million
- ☐ $5 million up to $10 million
- ☐ $10 million up to $20 million
- ☐ $20 million up to $50 million
- ☐ $50 million up to $100 million
- ☐ More than $100 million
- ☐ None
- ☐ Don't know

IF Q23 option 1-10 selected, show Q24. Otherwise SKIP to Q26.

24. You indicated that the largest transportation-related contract or subcontract your company was awarded in Nevada during the past five years was roughly **[pipe in Q23 response]**. Was this the largest transportation-related contract or subcontract that your company <u>bid on or submitted quotes for</u> in Nevada during the past five years?

- ☐ Yes
- ☐ No
- ☐ Don't know

25. **[Display if respondent selected 'No' in Q24.]** What was the largest transportation-related contract or subcontract that your company bid on or submitted quotes for in Nevada during the past five years?

- ☐ $100,000 or less
- ☐ $100,000 up to $500,000
- ☐ $500,000 up to $1 million
- ☐ $1 million up to $2 million
- ☐ $2 million up to $5 million
- ☐ $5 million up to $10 million
- ☐ $10 million up to $20 million
- ☐ $20 million up to $50 million
- ☐ $50 million up to $100 million
- ☐ More than $100 million
- ☐ None
- ☐ Don't know

Ownership

26. A business is defined as woman-owned if more than half—that is, 51 percent or more—of the ownership and control is by women. By this definition, is your firm a woman-owned business?

    ☐ Yes ☐ No ☐ Don't know

27. A business is defined as minority-owned if more than half—that is, 51 percent or more—of the ownership and control is African American, Asian, Hispanic, Native American or another minority group. By this definition, is your firm a minority-owned business?

    ☐ Yes ☐ No ☐ Don't know

28. **[Display if Q27 'Yes' is selected.]** Would you say that the minority group ownership is mostly African American, Asian-Pacific American, Subcontinent Asian American, Hispanic American, or Native American?

    ☐ African American
    ☐ Asian-Pacific American
    ☐ Subcontinent Asian American
    ☐ Hispanic American
    ☐ Native American
    ☐ Other: ___________________________
    ☐ Don't know

Business Background

29. About what year was your firm established? ___________________

30. About how many employees did you have working out of just your location, on average, from 2010 through 2012?

    ____

31. Think about the annual gross revenue of your company, considering just your location. Please estimate the annual average for 2010 through 2012 (or for the years your company was in business if started after 2010).

    ☐ Less than $1 million
    ☐ $1 million to $4.5 million
    ☐ $4.6 million to $7 million
    ☐ $7.1 million to $12.5 million
    ☐ $12.6 million to $14.0 million
    ☐$14.1 million to $19.0 million
    ☐ $19.1 million to $22.4 million
    ☐ $22.5 million or more
    ☐ Don't know

32. About how many employees did you have, on average, for all of your locations from 2010 through 2012?___

    ____

33. Think about the annual gross revenue of your company, for all your locations. Please estimate the annual average for 2010 through 2012 (or for the years your company was in business if started after 2010).

- ☐ Less than $1 million
- ☐ $1 million to $4.5 million
- ☐ $4.6 million to $7 million
- ☐ $7.1 million to $12.5 million
- ☐ $12.6 million to $14.0 million
- ☐ $14.1 million to $19.0 million
- ☐ $19.1 million to $22.4 million
- ☐ $22.5 million or more
- ☐ Don't know

Barriers or Difficulties

Finally, we're interested in whether your company has experienced barriers or difficulties associated with starting or expanding a business in your industry or with obtaining work. Think about your experiences within the past five years as you answer these questions.

34. Has your company experienced any difficulties in obtaining lines of credit or loans?

- ☐ Yes
- ☐ No
- ☐ Don't know
- ☐ Does not apply

35. Has your company obtained or tried to obtain a bond for a project?

- ☐ Yes
- ☐ No
- ☐ Don't know
- ☐ Does not apply

36. **[Display if Q35 'Yes' is selected. Otherwise skip to Q37.]** Has your company had any difficulties obtaining bonds needed for a project?

- ☐ Yes
- ☐ No
- ☐ Don't know
- ☐ Does not apply

37. Have you had any difficulty in licensing or being prequalified for work in Nevada?

- ☐ Yes
- ☐ No
- ☐ Don't know
- ☐ Does not apply

38. Have any insurance requirements on projects presented a barrier to bidding?

- ☐ Yes
- ☐ No
- ☐ Don't know
- ☐ Does not apply

39. Has the size of large projects presented a barrier to bidding?

- ☐ Yes
- ☐ No
- ☐ Don't know
- ☐ Does not apply

40. Has your company experienced any difficulties learning about bid opportunities with NDOT?

☐ Yes ☐ No

☐ Don't know ☐ Does not apply

41. Has your company experienced any difficulties learning about bid opportunities with cities, counties and other local agencies in Nevada?

☐ Yes ☐ No

☐ Don't know ☐ Does not apply

42. Has your company experienced any difficulties learning about bid opportunities in the private sector in Nevada?

☐ Yes ☐ No

☐ Don't know ☐ Does not apply

43. Has your company experienced any difficulties learning about subcontracting opportunities in Nevada?

☐ Yes ☐ No

☐ Don't know ☐ Does not apply

44. Has your company experienced any difficulties obtaining final approval on your work from inspectors or prime contractors?

☐ Yes ☐ No

☐ Don't know ☐ Does not apply

45. Has your company experienced any difficulties receiving payment in a timely manner?

☐ Yes ☐ No

☐ Don't know ☐ Does not apply

46. Do any other barriers come to mind? Do you have any general thoughts or insights on starting and expanding a business in your field or winning work as a prime or subcontractor in Nevada?

____

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47. Would you be willing to participate in a follow-up interview about the local marketplace?

☐ Yes ☐ No

End of survey message:

Thank you for providing this information. The survey is complete and all of your responses have been recorded. If you have any questions, please contact Allie Phillips at Keen Independent Research (303-385-8515 or allie.phillips@keenindependent.com, or Yvonne Schuman at NDOT (702-730-3301 or YSchuman@dot.nv.us).

APPENDIX E.
Entry and Advancement in the Nevada Construction and Engineering Industries

Federal courts have found that Congress "spent decades compiling evidence of race discrimination in government highway contracting, of barriers to the formation of minority-owned construction businesses, and of barriers to entry."[1] Congress found that discrimination had impeded the formation of qualified minority-owned businesses. In the marketplace appendices (Appendix E through Appendix I), the study team examines whether some of the barriers to business formation that Congress found for minority- and women-owned businesses also appear to occur in Nevada.

One potential source of barriers to business formation is barriers associated with entry and advancement in the construction and engineering industries. Appendix E examines recent data on education, employment, and workplace advancement that may ultimately influence business formation in the Nevada construction and engineering industries.[2,3]

BBC Research & Consulting (BBC), a subconsultant to Keen Independent Research in performing this disparity study, prepared the analyses in Appendix E under the direction of David Keen of Keen Independent. Keen Independent was the final author of this appendix.

Introduction

Keen Independent and BBC examined whether there were barriers to the formation of minority- and women-owned businesses in Nevada. Business ownership often results from an individual entering an industry as an employee and then advancing within that industry. Within the entry and advancement process, there may be some barriers that limit opportunities for minorities and women. Figure E-1 presents a model of entry and advancement in the construction and engineering industries.

Appendix E uses 1980 and 2000 Census data and 2009-2011 American Community Survey (ACS) data to analyze education, employment, and workplace advancement — all factors that may influence whether individuals form construction or engineering businesses. The study team studied barriers to entry into construction and engineering separately, because entrance requirements and opportunities for advancement differ for those industries.

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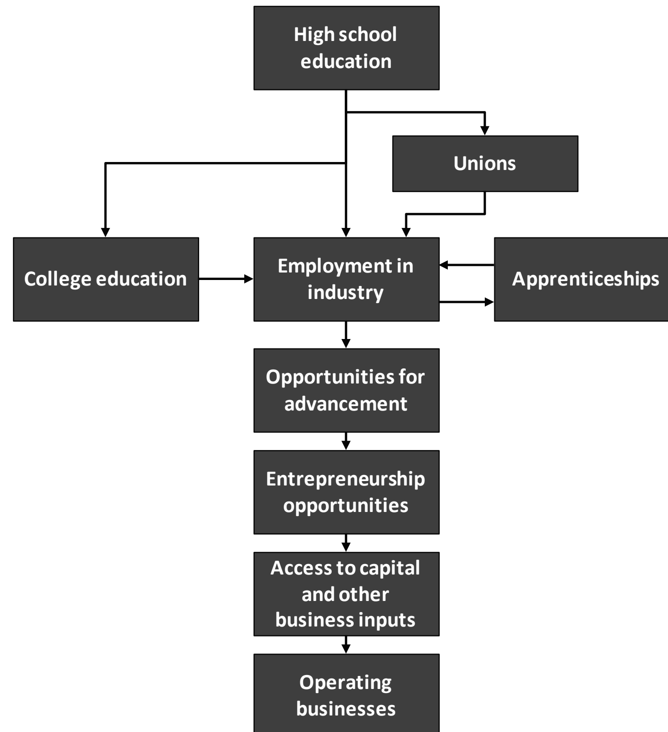
[1] *Sherbrooke Turf, Inc.*, 345 F.3d 964 (8th Cir. 2003) at 970 (citing *Adarand Constructors, Inc.*, 228 F.3d at 1167 – 76); *Western States Paving Co. v. Washington State DOT*, 407 F.3d 983 (9th Cir. 2005) at 992.

[2] In Appendix E and other appendices that present information about local marketplace conditions, information for "engineering" refers to architectural, engineering and related services. Each reference to "engineering" work pertains to those types of services. In the 1980 and 2000 Census industrial classification system, "Architectural, engineering and related services" was coded as 882 and 729. In the 2009-2011 ACS, the same industry was coded as 7290.

[3] Several other report appendices analyze other quantitative aspects of conditions in the Nevada marketplace. Appendix F explores business ownership. Appendix G presents an examination of access to capital. Appendix H considers the success of businesses. Appendix I presents the data sources that the study team used in those appendices.

Figure E-1.
Model for studying entry into the construction and engineering industries

Source:
Keen Independent.



Representation of minorities among workers and business owners in Nevada. As a starting point, the study team examined the representation of racial/ethnic minorities among workers and business owners in Nevada and in the United States as a whole. Figure E-2 shows demographics of the labor force, business owners in all Nevada industries, and business owners in the Nevada construction and engineering industries, based on 2009-2011 data. (Demographics of the construction and engineering industries are considered separately later in Appendix E.). Demographic results for Nevada in 2009 through 2011 indicated the following:

- African Americans accounted for about 8 percent of all workers, 4 percent of all business owners, and 4 percent of business owners in construction and engineering;
- Hispanic Americans accounted for 25 percent of all workers, 17 percent of all business owners, and 23 percent of business owners in construction and engineering;
- Asian-Pacific Americans accounted for about 9 percent of all workers and 7 percent of all business owners, but only 4 percent of construction and engineering business owners;
- Native Americans accounted for approximately 2 percent of all workers, but only 1 percent of all business owners and business owners in construction and engineering;
- Subcontinent Asian Americans accounted for less than 1 percent of workers, business owners and business owners in construction and engineering; and
- Non-Hispanic whites accounted for about 56 percent of all Nevada workers, 71 percent of all Nevada business owners, and 69 percent of construction and engineering business owners.

Figure E-2.
Demographic distribution of the workforce and business owners, 2009-2011

Nevada	Workforce in all industries (n=40,234)	Business owners in all industries (n=3,233)	Business owners in construction and engineering (n=420)
Race/ethnicity			
African American	7.9 %	4.2 % **	3.6 % **
Asian-Pacific American	8.8	6.7 **	3.7 **
Subcontinent Asian American	0.4	0.7	0.0
Hispanic American	24.6	16.8 **	22.5
Native American	1.6	0.9 **	1.1
Other minority group	0.2	0.1	0.0
Total minority	43.5 %	29.5 %	31.0 %
Non-Hispanic white	56.5	70.5 **	69.0 **
Total	100.0 %	100.0 %	100.0 %
Gender			
Female	45.7 %	38.8 % **	7.8 % **
Male	54.3	61.2 **	92.2 **
Total	100.0 %	100.0 %	100.0 %

United States	Workforce in all industries (n=1,521,561)	Business owners in all industries (n=153,823)	Business owners in construction and engineering (n=27,450)
Race/ethnicity			
African American	11.9 %	6.1 % **	4.5 % **
Asian-Pacific American	4.3	4.4	1.8 **
Subcontinent Asian American	1.1	1.2	0.3 **
Hispanic American	15.4	12.9 **	16.2 **
Native American	1.1	0.9 **	1.0 **
Other minority group	0.2	0.2	0.2
Total minority	34.1 %	25.7 %	24.0 %
Non-Hispanic white	65.9	74.3 **	76.0 **
Total	100.0 %	100.0 %	100.0 %
Gender			
Female	47.2 %	34.9 % **	6.7 % **
Male	52.8	65.1 **	93.3 **
Total	100.0 %	100.0 %	100.0 %

Note: ** Denotes that the difference in proportions between all workers and business owners (or business owners in study industries) for the given race/ethnicity/gender group is statistically significant at the 95% confidence level.

Source: BBC Research & Consulting from 2009-2011 ACS Public Use Micro-sample data. The raw data extracts were obtained through the IPUMS program of the MN Population Center: http://usa.ipums.org/usa/.

Patterns that the study team observed in Nevada related to the racial/ethnic composition of workers and business owners were similar to those observed in the United States, with the following exceptions:

- African Americans made up smaller percentages of the overall workforce and of business owners in Nevada than in the United States; and
- Hispanic Americans and Asian-Pacific Americans accounted for larger percentages of the overall workforce and of business owners in Nevada than in the United States.

Representation of women among workers and business owners in Nevada. Figure E-2 also presents the percentage of workers and business owners who were women for both Nevada and the United States. In 2009 through 2011, women accounted for about 46 percent of the Nevada labor force and 39 percent of all business owners. Women accounted for only 8 percent of business owners in the construction and engineering industries during those years.

Construction Industry

The study team examined how education, training, employment, and advancement may affect the number of businesses that individuals of different races/ethnicities and genders owned in the Nevada construction industry in 2000 and in 2009 through 2011.

Education. Formal education beyond high school is not a prerequisite for most construction jobs. For that reason, the construction industry often attracts individuals who have less formal education. Based on the 2009-2011 ACS, 36 percent of workers in the Nevada construction industry were high school graduates with no post-secondary education and 25 percent had not finished high school. Only 9 percent of those working in the Nevada construction industry had a four-year college degree or higher, compared to 22 percent of all workers in the state.

Race/ethnicity. Based on educational requirements of entry-level jobs and the limited education beyond high school for many Hispanic Americans, African Americans and Native Americans in Nevada, one would expect a relatively high representation of those groups in the Nevada construction industry, especially in entry-level positions.

- Hispanic Americans represented an especially large pool of Nevada workers with no post-secondary education. In 2009 through 2011, only 7 percent of all Hispanic American workers 25 and older who worked in Nevada held at least a four-year college degree, far below the figure for non-Hispanic whites working in the state (26%).
- The percentage of African American (18%) and Native American (11%) workers in Nevada with a four-year college degree was also substantially lower than that of non-Hispanic whites in 2009 through 2011.

In contrast to African Americans, Hispanic Americans, and Native Americans, a substantial proportion of Asian-Pacific American workers 25 and older (33%) and Subcontinent Asian American workers 25 and older (54%) in Nevada had four-year college degrees in 2009 through 2011. Given the relatively high levels of education for Asian-Pacific Americans and Subcontinent Asian Americans in Nevada, the representation of those groups in the Nevada construction industry might be lower than that of non-Hispanic whites.

Gender. Female workers in Nevada have a similar level of education, on average, as men. Based on 2009 through 2011 data, 25 percent of female workers and 23 percent of male workers age 25 and older had at least a four-year college degree.

Apprenticeship and training. Training in the construction industry is largely on-the-job and through trade schools and apprenticeship programs. Entry-level jobs for workers out of high school are often for laborers, helpers, or apprentices. More skilled positions in the construction industry may require additional training through a technical or trade school or through an apprenticeship or other employer-provided training program. Apprenticeship programs can be developed by employers, trade associations, trade unions, or other groups.

Workers can enter apprenticeship programs from high school or trade school. Apprenticeships have traditionally been three- to five-year programs that combine on-the-job training with classroom instruction.[4] Opportunities for those programs across race/ethnicity are discussed later in Appendix E.

Employment. With educational attainment for minorities and women as context, the study team examined employment in the Nevada construction industry. Figure E-3 presents data from 1980, 2000, and 2009-2011 to compare the demographic composition of the construction industry with the total workforce in both Nevada and in the United States.

Race/ethnicity. Based on 2009-2011 ACS data, 44 percent of people working in the Nevada construction industry were minorities, up from 37 percent in 2000. Much of that increase was due to growth in the number of Hispanic American construction workers. Examination of the Nevada construction industry workforce in 2009 through 2011 shows that:

- 35 percent was made up of Hispanic Americans;
- 5 percent was made up of African Americans;
- 2 percent was made up of Asian-Pacific Americans;
- 2 percent was made up of Native Americans; and
- Less than 1 percent was made up of Subcontinent Asian Americans and other minorities.

In Nevada, Hispanic Americans made up a larger percentage of workers in construction (35%) than in the workforce as a whole (25%). In contrast, African Americans, Asian-Pacific Americans, and Subcontinent Asian Americans made up smaller percentages of workers in the construction industry than in the entire workforce.

[4] Bureau of Labor Statistics, U.S. Department of Labor. 2006-07. "Construction." *Career Guide to Industries.* http://www.bls.gov/oco/cg/cgs003.htm (accessed February 15, 2007)

Figure E-3.
Demographics of workers in construction and all industries, 1980, 2000 and 2009-2011

Nevada	All industries 1980 (n=25,132)	All industries 2000 (n=61,191)	All industries 2009-11 (n=40,234)	Construction 1980 (n=1,993)	Construction 2000 (n=5,786)	Construction 2009-11 (n=3,072)
Race/ethnicity						
African American	5.3 %	6.7 %	7.9 %	3.9 %	3.7 %	4.5 % **
Asian-Pacific American	1.9	5.3	8.8	0.3	1.2	2.2 **
Subcontinent Asian American	0.1	0.3	0.4	0.1	0.0	0.1 **
Hispanic American	6.0	17.3	24.6	5.9	29.6 **	35.4 **
Native American	1.5	2.0	1.6	2.4	2.4	1.8
Other minority group	0.1	0.5	0.2	0.1	0.4	0.3
Total minority	14.9 %	32.1 %	43.5 %	12.7 %	37.3 %	44.3 %
Non-Hispanic white	85.0	67.9	56.5	87.3 **	62.7 **	55.7
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Gender						
Female	46.2 %	46.1 %	45.7 %	11.2 % **	11.4 % **	10.1 % **
Male	53.8	53.9	54.3	88.8 **	88.6 **	89.9 **
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

United States	All industries 1980 (n=6,338,776)	All industries 2000 (n=8,295,671)	All industries 2009-11 (n=1,521,561)	Construction 1980 (n=391,361)	Construction 2000 (n=579,867)	Construction 2009-11 (n=98,508)
Race/ethnicity						
African American	9.9 %	11.4 %	11.9 %	7.7 % **	7.5 % **	6.0 % **
Asian-Pacific American	1.4	3.4	4.3	0.6 **	1.3 **	1.6 **
Subcontinent Asian American	0.2	0.7	1.1	0.1 **	0.2 **	0.3 **
Hispanic American	5.6	11.3	15.4	5.7 **	15.8 **	23.8 **
Native American	0.6	1.2	1.1	0.9 **	1.6 **	1.3 **
Other minority group	0.1	0.4	0.2	0.1	0.4	0.2
Total minority	17.7 %	28.4 %	34.1 %	15.1 %	26.8 %	33.2 %
Non-Hispanic white	82.3	71.6	65.9	84.9 **	73.2 **	66.8 **
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Gender						
Female	46.0 %	47.9 %	47.2 %	8.9 % **	10.2 % **	9.0 % **
Male	54.0	52.1	52.8	91.1 **	89.8 **	91.0 **
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Note: ** Denotes that the difference in proportions between workers in the construction industry and all industries for the given Census/ACS year is statistically significant at the 95% confidence level.

Source: BBC Research & Consulting from 1980 and 2000 U.S. Census 5% sample and 2009-2011 ACS Public Use Microdata samples. Results from 1980 and 2000 were taken from the 2007 NDOT Availability and Disparity Study prepared by BBC Research & Consulting. The 2009-2011 raw data extract was obtained through the IPUMS program of the MN Population Center: http://usa.ipums.org/usa/.

Average educational attainment of African Americans is consistent with requirements for construction jobs, so education does not explain the relatively low number of African American workers in the Nevada construction industry. Several studies throughout the United States have argued that race discrimination by construction unions has contributed to the low employment of

African Americans in construction trades.[5] The role of unions is discussed more thoroughly later in Appendix E (including research that suggests discrimination has been reduced in unions).

Asian-Pacific Americans made up 2 percent of the construction workforce and 9 percent of all workers in Nevada in 2009 through 2011. The fact that Asian-Pacific Americans were more likely than other groups to have a college education may explain part of that difference.

Overall, the percentage of construction workers who are minorities has increased in Nevada over the past three decades (13% in 1980, 37% in 2000, and 44% in 2009 through 2011), as has the percentage of all Nevada workers who are minorities (15% in 1980, 32% in 2000, and 44% in 2009 through 2011).

Gender. There are large differences between the percentage of all workers who were women and construction workers who were women in Nevada. For 2009 through 2011, women represented 46 percent of all workers in Nevada but only 10 percent of workers in the construction industry. That difference is also evident for the United States as a whole.

Academic research concerning the effect of race- and gender-based discrimination. There is substantial academic literature that has examined whether race- or gender-based discrimination affects opportunities for minorities and women to enter construction trades in the United States. Many studies indicate that race- and gender-based discrimination affects opportunities for minorities and women in the construction industry. The literature concerning women in construction trades has identified substantial barriers to entry and advancement due to gender discrimination and sexual harassment.[6] Research concerning highway construction projects in three major U.S. cities (Boston, Los Angeles, and Oakland) identified evidence of prevailing attitudes that women do not belong in construction, and that such discrimination was worse for women of color than for white women.[7]

Importance of unions to entry in the construction industry. Labor researchers characterize construction as a historically volatile industry that is sensitive to business cycles, making the presence of labor unions important for stability and job security within the industry.[8] The temporary nature of construction work results in uncertain job prospects, and the relatively high turnover of laborers presents a disincentive for construction firms to invest in training. Some researchers have claimed that constant turnover has lent itself to informal recruitment practices and nepotism, compelling laborers to tap social networks for training and work. They credit the importance of social networks with the high degree of ethnic segmentation in the construction industry.[9] Unable to integrate

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[5] Waldinger, Roger and Thomas Bailey. 1991. "The Continuing Significance of Race: Racial Conflict and Racial Discrimination in Construction." *Politics & Society*, 19(3).

[6] See, for example, Erickson, Julia A and Donna E. Palladino. 2009. "Women Pursuing Careers in Trades and Construction." *Journal of Career Development*. 36(1): 68-89.

[7] Note that those interviews took place between 1996 and 1999. Price, Vivian, 2002. "Race, Affirmative Action and Women's Participation in U.S. Highway Construction." *Feminist Economics*. 8(2), 87-113.

[8] Applebaum, Herbert. 1999. Construction Workers, U.S.A. Westport: Greenwood Press.

[9] Waldinger, Roger and Thomas Bailey. 1991. "The Continuing Significance of Race: Racial Conflict and Racial Discrimination in Construction." *Politics & Society*, 19(3).

themselves into traditionally white social networks, African Americans and other minorities faced long-standing historical barriers to entering into the industry.[10]

Construction unions aim to provide a reliable source of labor for employers and preserve job opportunities for workers by formalizing the recruitment process, coordinating training and apprenticeships, enforcing standards of work, and mitigating wage competition. The unionized sector of construction would seemingly be the best road for African Americans and other underrepresented groups into the industry. However, some researchers have identified racial discrimination by trade unions that has historically prevented minorities from obtaining employment in skilled trades.[11] Some researchers argue that union discrimination has taken place in a variety of forms, including the following examples:

- Unions have used admissions criteria that adversely affect minorities. In the 1970s, federal courts ruled that standardized testing requirements for unions unfairly disadvantaged minority applicants who had less exposure to testing. In addition, the policies that required new union members to have relatives who were already in the union perpetuated the effects of past discrimination.[12]
- Of those minority individuals who are admitted to unions, a disproportionately low number are admitted into union-coordinated apprenticeship programs. Apprenticeship programs are an important means of producing skilled construction laborers, and the reported exclusion of African Americans from those programs has severely limited their access to skilled occupations in the construction industry.[13]
- Although formal training and apprenticeship programs exist within unions, most training of union members takes place informally through social networking. Nepotism characterizes the unionized sector of construction as it does the non-unionized sector, and that practice favors a white-dominated status quo.[14]
- Traditionally, white unions have been successful in resisting policies designed to increase African American participation in training programs. The political strength of unions in resisting affirmative action in construction has hindered the advancement of African Americans in the industry.[15]
- Discriminatory practices in employee referral procedures, including apportioning work based on seniority, have precluded minority union members from having the same access to construction work as their white counterparts.[16]

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[10] Feagin, Joe R. and Nikitah Imani. 1994. "Racial Barriers to African American Entrepreneurship: An Exploratory Study." Social Problems. 41(4): 562-584.

[11] U.S. Department of Justice. 1996. Proposed Reforms to Affirmative Action in Federal Procurement. 61 FR 26042.

[12] *Ibid.* See United States v. Iron Workers Local 86 (1971), Sims v. Sheet Metal Workers International Association (1973), and United States v. International Association of Bridge, Structural and Ornamental Iron Workers (1971).

[13] Applebaum. 1999. Construction Workers, U.S.A.

[14] *Ibid.* 299. A high percentage of skilled workers reported having a father or relative in the same trade. However, the author suggests this may not be indicative of current trends.

[15] Waldinger and Bailey. 1991. "The Continuing Significance of Race: Racial Conflict and Racial Discrimination in Construction."

[16] U.S. Department of Justice. 1996. Proposed Reforms to Affirmative Action in Federal Procurement. 61 FR 26042. See *United Steelworkers of America v. Weber* (1979) and *Taylor v. United States Department of Labor* (1982).

- According to testimony from African American union members, even when unions implement meritocratic mechanisms of apportioning employment to laborers, white workers are often allowed to circumvent procedures and receive preference for construction jobs.[17]

However, more recent research suggests that the relationship between minorities and unions has been changing. As a result, historical observations may not be indicative of current dynamics in construction unions. Recent studies focusing on the role of unions in apprenticeship programs have compared minority and female participation and graduation rates for apprenticeships in joint programs (that unions and employers organize together) with rates in employer-only programs. Many of those studies conclude that the impact of union involvement is generally positive or neutral for minorities and women, compared to non-Hispanic white males:

- Glover and Bilginsoy (2005) analyzed apprenticeship programs in the U.S. construction industry during the period 1996 through 2003. Their dataset covered about 65 percent of apprenticeships during that time. The authors found that joint programs had “much higher enrollments and participation of women and ethnic/racial minorities” and exhibited “markedly better performance for all groups on rates of attrition and completion” compared to employer-run programs.[18]
- In a similar analysis focusing on female apprentices, Bilginsoy and Berik (2006) found that women were most likely to work in highly-skilled construction professions as a result of enrollment in joint programs as opposed to employer-run programs. Moreover, the effect of union involvement in apprenticeship training was higher for African American women than for white women.[19]
- A recent study on the presence of African Americans and Hispanic Americans in apprenticeship programs found that African Americans were 8 percent more likely to be enrolled in a joint program than in an employer-run program. However, Hispanic Americans were less likely to be in a joint program than in an employer-run program.[20] Those data suggest that Hispanic Americans may be more likely than African Americans to enter the construction industry without the support of a union.

Other data also indicate a more productive relationship between unions and minority workers than that which may have prevailed in the past. For example, 2012 Current Population Survey (CPS) data indicate that union membership rates for African Americans is slightly higher than for non-Hispanic whites and union membership rates for Hispanic Americans are similar to those of non-Hispanic whites.[21] The CPS asked participants, “Are you a member of a labor union or of an employee association similar to a union?” CPS data showed union membership to be 13 percent for African

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[17] Feagin and Imani. 1994. “Racial Barriers to African American Entrepreneurship: An Exploratory Study.” *Social Problems*. 41 (4): 562-584.

[18] Glover, Robert and Bilginsoy, Cihan. 2005. “Registered Apprenticeship Training in the U.S. Construction Industry.” *Education & Training*, Vol. 47, 4/5, p 337.

[19] Günseli Berik, Cihan Bilginsoy. 2006. "Still a wedge in the door: women training for the construction trades in the USA", *International Journal of Manpower*, Vol. 27 Iss: 4, pp.321 – 341.

[20] Bilginsoy, Cihan. 2005. “How Unions Affect Minority Representation in Building Trades Apprenticeship Programs.” *Journal of Labor Research, 57(1).*

[21] 2012 Current Population Survey (CPS), Merged Outgoing Rotation Groups, U.S. Census Bureau and Bureau of Labor Statistics.

American workers, 10 percent for Hispanic American workers and 11 percent for non-Hispanic white workers. In the construction industry, the union membership rates for both African American workers and non-Hispanic white workers is 17 percent but the rate for Hispanic American construction workers is only 8 percent.

Although union membership and union program participation varies based on race/ethnicity, the causes of those differences and their effects on construction industry employment are unresolved. Research is especially limited on the impact of unions on Asian American employment. It is unclear from past studies whether unions presently help or hinder equal opportunity in construction and whether effects in Nevada are different from other parts of the country. In addition, the current research indicates that the effects of unions on entry into the construction industry may be different for different minority groups.

Advancement. To research opportunities for advancement in the Nevada construction industry, the study team examined the representation of minorities and women in construction occupations defined by the U.S. Bureau of Labor Statistics.[22] Appendix I provides full descriptions of construction trades with large enough sample sizes in the 2000 Census and 2009-2011 ACS for the study team to analyze.

Racial/ethnic composition of construction occupations. Figures E-4 and E-5 present the race/ethnicity of workers in select construction-related occupations in Nevada, including low-skill occupations (e.g., construction laborers), higher-skill construction trades (e.g., electricians), and supervisory roles. Figure E-4 and E-5 present those data for 2000 and 2009 through 2011, respectively.

Based on 2000 Census and 2009-2011 ACS data, there are large differences in the racial/ ethnic makeup of workers in various trades related to construction in Nevada. Overall, minorities comprised 37 percent of construction workers in 2000 and 44 percent in 2009 through 2011. Minorities comprised a relatively large percentage of laborers working as:

- Cement masons and terrazzo workers (63% in 2000 and 73% in 2009 through 2011); and
- Construction laborers (61% in 2000 and 63% in 2009 through 2011).

[22] Bureau of Labor Statistics, U.S. Department of Labor. 2001. "Standard Occupational Classification Major Groups." http://www.bls.gov/soc/soc_majo.htm (accessed February 15, 2007).

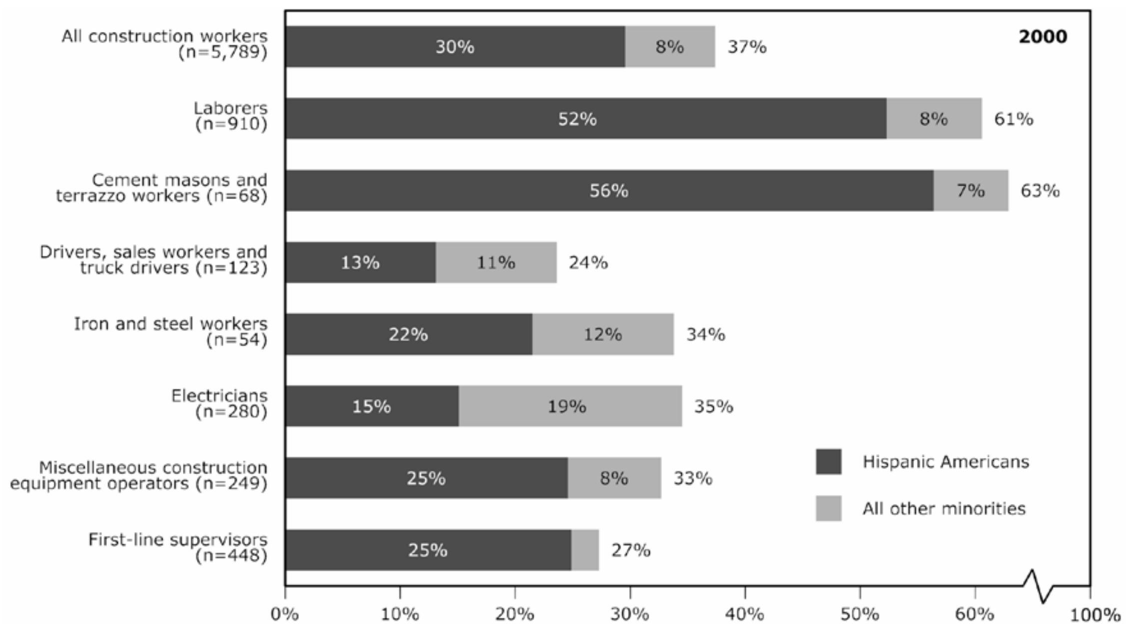
Some occupations had relatively low representations of minorities:

- Drivers, sales workers and truck drivers (24% in 2000 and 33% in 2009 through 2011);
- Electricians (35% in 2000 and 33% in 2009 through 2011); and
- Equipment operators (23% in 2000 and 39% in 2009 through 2011).

About 27 percent of first-line supervisors were minorities in 2000, less than the total percentage of Nevada construction workers who were minorities (34%). Minorities made up a larger percentage of first-line supervisors (33%) in 2009 through 2011, but that percentage was still much less than the total percentage of construction workers who were minorities during those years (44%).

Most minorities working in the Nevada construction industry in 2009 through 2011 were Hispanic Americans. The representation of Hispanic Americans was substantially greater among drywall installers (74%), cement masons (73%), roofers (65%), carpet installers (65%), painters (58%) and construction laborers (54%) than among all construction workers (35%). Those occupations tend to be low-skill occupations. Only 26 percent of first-line supervisors in 2009 through 2011 were Hispanic Americans.

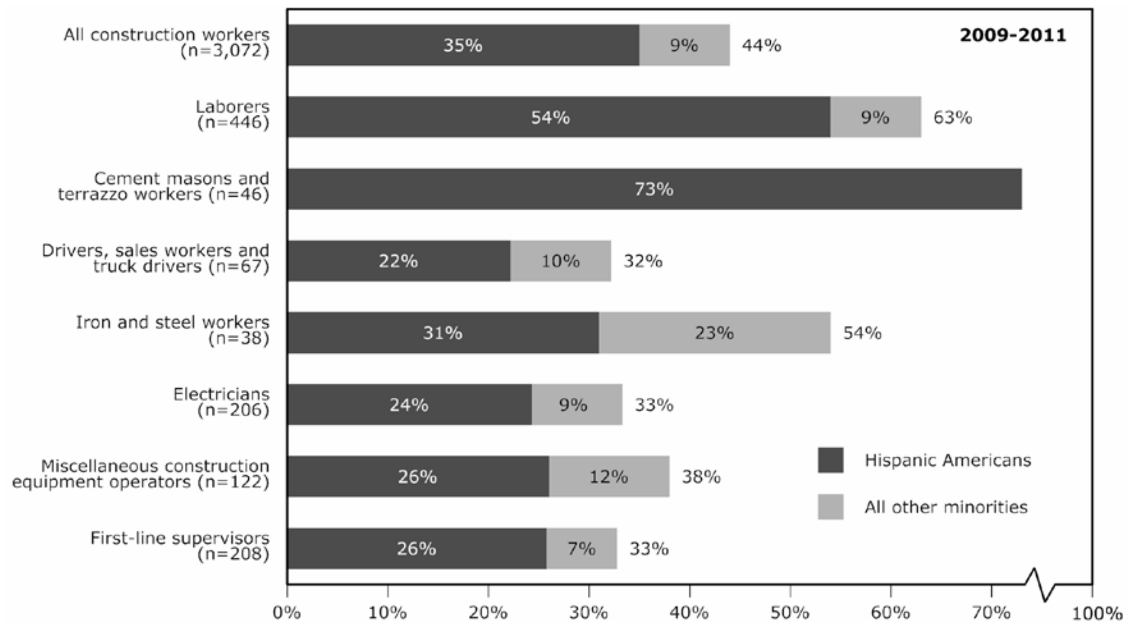
Figure E-4.
Minorities as a percentage of selected construction occupations in Nevada, 2000



Note: Crane and tower operators, dredge, excavating and loading machine and dragline operators, paving, surfacing and tamping equipment operators and miscellaneous construction equipment operators were combined into the single category of machine operators.

Source: BBC Research & Consulting from 2000 U.S. Census 5% sample Public Use Micro-sample data; originally prepared for the 2007 NDOT Availability and Disparity Study prepared by BBC Research & Consulting.

Figure E-5.
Minorities as a percentage of selected construction occupations in Nevada, 2009-2011



Note: Crane and tower operators, dredge, excavating and loading machine and dragline operators, paving, surfacing and tamping equipment operators and miscellaneous construction equipment operators were combined into the single category of machine operators.

Source: BBC Research & Consulting from 2009-2011 American Community Survey data. The raw data extract was obtained through the IPUMS program of the MN Population Center: http://usa.ipums.org/usa/.

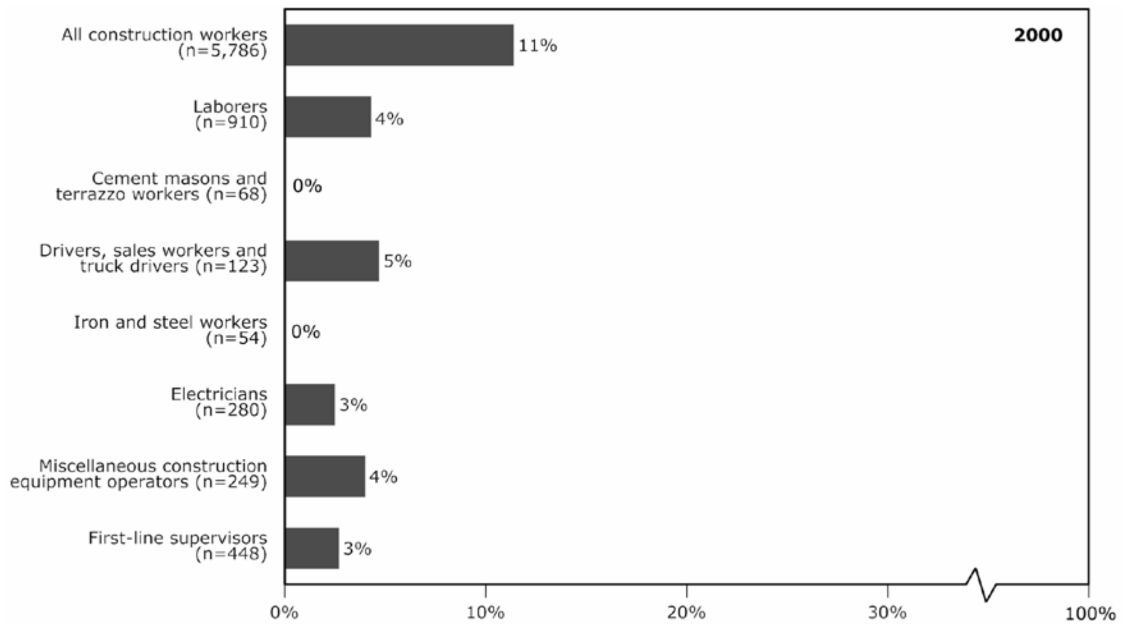
Gender composition of construction occupations. The study team also analyzed the proportion of women in construction-related occupations. Figures E-6 and E-7 summarize the representation of women in select construction-related occupations for 2000 and 2009 through 2011, respectively. Overall, women made up only 11 percent of workers in the industry in 2000 and 10 percent in 2009 through 2011.

In both 2000 and 2009 through 2011, less than 4 percent of workers were female in the following trades:

- Cement masons and terrazzo workers;
- Iron and steel workers;
- Electricians; and
- Equipment operators.

Among all of the individual occupations listed in Figures E-6 and E-7, representation of women increased the most among first-line supervisor jobs.

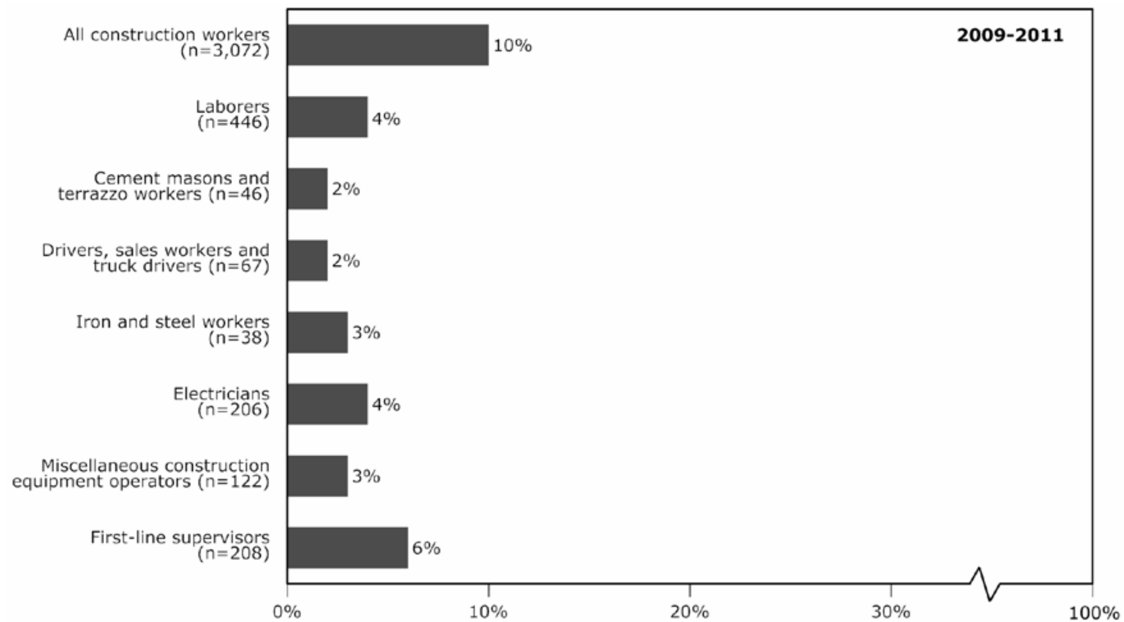
Figure E-6.
Women as a percentage of construction workers in selected occupations in Nevada, 2000



Note: Crane and tower operators, dredge, excavating and loading machine and dragline operators, paving, surfacing and tamping equipment operators and miscellaneous construction equipment operators were combined into the single category of machine operators.

Source: BBC Research & Consulting from 2000 U.S. Census 5% sample Public Use Micro-sample data; originally prepared for the 2007 NDOT Availability and Disparity Study prepared by BBC Research & Consulting.

Figure E-7.
Women as a percentage of construction workers in selected occupations in Nevada, 2009-2011



Note: Crane and tower operators, dredge, excavating and loading machine and dragline operators, paving, surfacing and tamping equipment operators and miscellaneous construction equipment operators were combined into the single category of machine operators.

Source: BBC Research & Consulting from 2009-2011 American Community Survey data. The raw data extract was obtained through the IPUMS program of the MN Population Center: http://usa.ipums.org/usa/.

Percentage of minorities and women who are managers. To further assess advancement opportunities for minorities and women in the Nevada construction industry, the study team examined the proportion of construction workers who reported being managers. Figure E-8 presents the percentage of construction workers who reported being construction managers in 1980, 2000, and 2009 through 2011 for Nevada and the nation, by racial/ethnic and gender group.

Figure E-8.
Percentage of construction workers who worked as a manager, 1980, 2000 and 2009-2011

Note:

** Denotes that the difference in proportions between the minority group and non-Hispanic whites (or between females and males) for the given Census/ACS year is statistically significant at the 95% confidence level (or if *, at the 90% confidence level).

Source:

BBC Research & Consulting from 1980 and 2000 U.S. Census 5% sample and 2009-2011 ACS Public Use Microdata samples. Results from 1980 and 2000 were taken from the 2007 NDOT Availability and Disparity Study prepared by BBC Research & Consulting. The 2009-2011 raw data extract was obtained through the IPUMS program of the MN Population Center: http://usa.ipums.org/usa/.

Nevada	1980		2000		2009-2011	
Race/ethnicity						
African American	1.3 %		2.2 %		1.9 %	**
Asian-Pacific American	16.7		5.4		5.0	
Subcontinent Asian American	100.0		0.0		0.0	
Hispanic American	1.7		1.0	**	1.8	**
Native American	0.0		4.1	*	13.3	
Other minority	0.0		3.1		0.0	
Non-Hispanic white	5.1		7.6		8.5	
Gender						
Female	8.0 %	**	4.0 %		6.4 %	
Male	4.3		5.5		5.7	
All individuals	4.7 %		5.3 %		5.8 %	

United States	1980		2000		2009-2011	
Race/ethnicity						
African American	1.4 %	**	2.9 %	**	4.2 %	**
Asian-Pacific American	4.2		7.0		7.4	**
Subcontinent Asian American	5.1		10.3	**	8.1	
Hispanic American	1.9	**	2.4	**	2.7	**
Native American	2.2	**	4.2	**	5.7	**
Other minority	4.7		5.8	**	5.2	
Non-Hispanic white	4.6		7.1		8.7	
Gender						
Female	5.1 %	**	3.9 %	**	5.0 %	**
Male	4.1		6.2		7.1	
All individuals	4.2 %		%		6.9 %	

Racial/ethnic composition of managers. In 2009 through 2011, about 8 percent of non-Hispanic whites in the Nevada construction industry were managers. Except for Native Americans, a smaller percentage of minority workers were managers:

- About 2 percent of African Americans working in the Nevada construction industry were managers;
- About 2 percent of Hispanic Americans were managers;
- About 5 percent of Asian-Pacific Americans were managers (not a statistically significant difference from non-Hispanic whites); and
- There were no Subcontinent Asian American or other minority managers in the dataset.

Although the percentage of non-minority construction workers who were managers was about the same in Nevada as for the United States, the percentages of were sharply lower in Nevada than the nation for most minority groups.

Gender composition of managers. In the Nevada construction industry, there was little difference in the percentage of women and men that were managers (see Figure E-8).

Engineering Industry

The study team also examined how education and employment may influence the number of potential minority and female entrepreneurs working in the Nevada engineering industry.

Education. In contrast to the construction industry, lack of educational attainment may preclude workers' entry into the engineering industry. Many occupations require at least a four-year college degree and some require licensure. According to the 2009-2011 ACS, 52 percent of individuals working in the Nevada engineering industry had at least a four-year college degree. Two-thirds of civil engineers had at least a four-year college degree. Therefore, barriers to education can restrict employment opportunities, advancement opportunities, and, ultimately, business ownership. Any disparities in business ownership rates in engineering-related work could have resulted from the lack of sufficient education for particular race/ethnicity and gender groups.[23]

Race/ethnicity. Figure E-9 presents the percentage of workers age 25 and older with at least a four-year college degree in Nevada and the United States. In Nevada, about 29 percent of all non-Hispanic white workers age 25 and older had at least a four-year degree in 2009 through 2011. For other racial/ethnic groups, the data for Nevada indicated that:

- About 20 percent of African Americans had at least a four-year college degree;
- Only 9 percent of Hispanic Americans had at least a four-year college degree; and
- About 13 percent of Native Americans had at least a four-year college degree.

The level of education necessary to work in the engineering industry may partially affect employment opportunities for those groups.

Some minority groups in Nevada were more likely than non-Hispanic whites to be college graduates — 36 percent of Asian-Pacific Americans and 57 percent of Subcontinent Asian Americans had at least a four-year college degree for the 2009 through 2011 time period.

In both Nevada and the United States as a whole, all minority groups showed an increase between 2000 and 2009 through 2011 in the proportion of workers with a bachelor's degree.

Gender. Since 2000 the proportion of women in Nevada with at least a four-year college degree has surpassed that of men. In 2009 through 2011, 25 percent of women and 23 percent of men had a bachelor's degree.

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[23] Feagin, Joe R. and Nikitah Imani. 1994. "Racial Barriers to African American Entrepreneurship: An Exploratory Study." *Social Problems*. 42 (4): 562-584.

Figure E-9.
Percentage of all workers 25 and older with at least a four-year degree, 2000 and 2009-2011

Note:

** Denotes that the difference in proportions between the minority and non-Hispanic white groups (or female and male gender groups) for the given Census/ACS year is statistically significant at the 95% confidence level.

Source:

BBC Research & Consulting from 2000 U.S. Census 5% sample and 2009-2011 ACS Public Use Microdata samples. Results from 2000 were taken from the 2007 NDOT Availability and Disparity Study prepared by BBC Research & Consulting. The 2009-2011 raw data extract was obtained through the IPUMS program of the MN Population Center: http://usa.ipums.org/usa/.

Nevada	2000		2009-2011	
Race/ethnicity				
African American	13.3 %	**	20.0 %	**
Asian-Pacific American	28.7	**	36.1	**
Subcontinent Asian American	44.0	**	56.9	**
Hispanic American	6.9	**	8.6	**
Native American	11.2	**	13.2	**
Other minority group	18.3	*	43.3	
Non-Hispanic white	22.5		28.8	
Gender				
Female	19.1 %	**	25.3 %	**
Male	20.1		23.0	

United States	2000		2009-2011	
Race/ethnicity				
African American	17.2 %	**	23.1 %	**
Asian-Pacific American	43.5	**	48.9	**
Subcontinent Asian American	66.8	**	74.2	**
Hispanic American	12.0	**	15.5	**
Native American	15.9	**	20.6	**
Other minority group	29.0	**	37.2	
Non-Hispanic white	31.0		36.9	
Gender				
Female	27.6 %	**	34.2 %	**
Male	28.4		31.9	

Additional indices of educational attainment. A 2010 report by the National Center for Education Statistics examined the educational attainment and performance of students in the United States by race/ethnicity. Despite increases in the number of students of each race/ethnicity group who have completed high school and have pursued a postsecondary education, disparities persist in a number of key performance indicators among non-Hispanic whites, Asian Americans, African Americans, Hispanic Americans and Native Americans.

Some of the results from the report that were related to high school student achievement include the following:

- Reading. On the 2007 National Assessment of Educational Progress (NAEP) reading assessment, 40 percent of non-Hispanic white 8th graders scored at or above "proficient," compared to only 13 percent of African American, 15 percent of Hispanic American and 18 percent of Native American 8th grade students. The percentage of Asian American 8th graders who exhibited "proficient" scores (41%) was similar to that of non-Hispanic whites. Results for 12th graders were similar — higher percentages of non-Hispanic white (43%) and Asian American (36%) students scored at or above "proficient" compared with their African American (16%), Hispanic (20%) and Native American (26%) peers.

- **Mathematics.** On the NAEP mathematics assessment conducted in 2009 (for 8th graders) and 2005 (for 12th graders), a higher proportion of Asian American students in both 8th and 12th grade scored at or above "proficient" than all other racial/ethnic groups. Among 8th graders, 54 percent of Asian American students met the proficiency benchmark compared to 44 percent of non-Hispanic white, 12 percent of African American, 17 percent of Hispanic, and 18 percent of American Indian/Alaska Native students. Proficiency was lower for all groups in 12th grade but similar disparities persisted.
- **College readiness.** Diversity among SAT and ACT college entrance exam test-takers increased substantially between 1998 and 2008 but differences in performance on those exams persisted. Average scores for non-Hispanic whites and Asian Americans were substantially higher than scores for African Americans, Hispanic Americans, and Native Americans. The same organization that administers the ACT also measures "college readiness" in English, Mathematics, Reading, and Science using a benchmark score — the minimum score in each subject area that indicates a 50 percent chance of obtaining a "B" or higher or a 75 percent chance of obtaining a "C" or higher in corresponding college-level courses. A higher percentage of Asian Americans (33%) and non-Hispanic whites (27%) who took the ACT in 2008 met the benchmark score in all four subject areas than any other racial/ethnic group. Only 3 percent of African Americans, 10 percent of Hispanic Americans, and 11 percent of Native Americans taking the ACT met the college readiness benchmark in all four subjects.[24]

The report also considered trends in postsecondary education among different racial/ethnic groups:

- **College participation.** The college participation rate, defined as the percentage of 18 to 24 year olds enrolled in 2-year or 4-year colleges or universities, was higher in 2008 than in 1980 for non-Hispanic whites, African Americans, and Hispanic Americans. Even so, the participation rate in 2008 for non-Hispanic whites (44%) was substantially higher than for African Americans (32%), Hispanic Americans (26%), and Native Americans (22%). Although there was no measurable increase in the college participation rate for Asian Americans between 1990 and 2008, that group maintained the highest overall college participation rate at 58 percent.[25]
- **Engineering-related degrees.** Approximately 5 percent of all bachelor's degrees awarded in the United States in 2007 through 2008 were in engineering and engineering technologies. Asian Americans exhibited the highest percentage of bachelor's degrees awarded in engineering (9%) and African Americans exhibited the lowest (3%). Four percent of bachelor's degrees awarded to Hispanic Americans and Native Americans and 5 percent of bachelor's degrees awarded to non-Hispanic whites were in engineering and engineering technologies. Those trends were similar for masters and doctoral degrees.

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[24] The study team examined college readiness benchmarks for 2012 high school graduates in Nevada who took the ACT in their sophomore, junior or senior year and results were similar.

[25] College participation data for Asian Americans were not available for 1980.

Employment. After consideration of educational opportunities and attainment for minorities and women, the study team examined the race/ethnicity and gender composition of workers in the engineering industry in Nevada. Figure E-10 compares the demographic composition of workers in the Nevada engineering industry to that of all workers in Nevada who are 25 years or older and have a college degree.

Race/ethnicity. In 2009 through 2011, about 18 percent of the workforce in the Nevada engineering industry was made up of minorities. Of that workforce:

- About 3 percent was made up of African Americans;
- About 7 percent was made up of Asian-Pacific Americans;
- One-half of one percent was made up of Subcontinent Asian Americans;
- About 7 percent was made up of Hispanic Americans; and
- About 1 percent was made up of Native Americans.

Other minorities comprised less than one-half of one percent of the Nevada engineering workforce in 2009 through 2011.

In 2009 through 2011, all minorities considered together comprised a smaller percentage of workers in engineering-related industries (18%) than of all workers 25 and older with a four-year college degree (31%). In particular, African Americans made up nearly 7 percent of workers with a four-year college degree but only 3 percent of workers in the engineering industry. Asian Pacific Americans made up 14 percent of workers with a college degree but only 7 percent of engineering industry workers. Subcontinent Asian Americans and Hispanic Americans also showed a smaller representation among engineers than they did among all workers with a college degree, but the differences were not statistically significant. Native Americans comprised a similar percentage of workers in the engineering industry and of workers with a college degree in all industries.

Gender. Compared to their representation among workers 25 and older with a college degree in all industries, relatively few women work in the engineering industry. In 2009 through 2011, women represented about 27 percent of engineering-related workers in Nevada but 48 percent of workers with a four-year college degree.

Figure E-10.
Demographic distribution of engineering-related workers and workers age 25 and older with a four-year college degree in all industries, 2009-2011

Nevada	Workers 25+ with college degree (n=9,119)	Engineering industry workforce (n=411)	
Race/ethnicity			
African American	6.5 %	2.5 %	**
Asian-Pacific American	13.7	7.1	**
Subcontinent Asian American	0.9	0.5	
Hispanic American	8.3	6.6	
Native American	0.9	1.2	
Other minority group	0.3	0.3	
Total minority	30.5 %	18.3 %	
Non-Hispanic white	69.5	81.7	**
Total	100.0 %	100.0 %	
Gender			
Female	47.7 %	27.4 %	**
Male	52.3	72.6	**
Total	100.0 %	100.0 %	

United States	Workers 25+ with college degree (n=452,049)	Engineering industry workforce (n=15,919)	
Race/ethnicity			
African American	8.1 %	4.7 %	**
Asian-Pacific American	6.6	6.0	**
Subcontinent Asian American	2.7	1.8	**
Hispanic American	6.9	7.6	**
Native American	0.7	0.8	
Other minority group	0.2	0.2	
Total minority	25.2 %	21.3 %	
Non-Hispanic white	74.8	78.7	**
Total	100.0 %	100.0 %	
Gender			
Female	48.8 %	27.1 %	**
Male	51.2	72.9	**
Total	100.0 %	100.0 %	

Note: ** Denotes that the difference in proportions between engineers and workers in all industry groups for the given Census/ACS year is statistically significant at the 95% confidence level.

The engineering –related industry in 2000 and 2009-2011 is "architectural, engineering, and related services," and in 1980 is "engineering, architectural and surveying services." Though closely related, the groups are not exactly comparable.

Source: BBC Research & Consulting from 2009-2011 ACS Public Use Microdata samples. The raw data extract was obtained through the IPUMS program of the MN Population Center: http://usa.ipums.org/usa/.

Civil engineers. The study team also examined the number of minorities and women among civil engineers in Nevada in 2009 through 2011. Figure E-11 presents those results. Overall, in 2009 through 2011, the percentage of civil engineers who were minorities (28%) was only slightly below

the percentage of all Nevada workers with college degrees who were minorities (31%). That result is similar to the United States as a whole

Only 7 percent of civil engineers in Nevada were women in 2009 through 2011, far less than the percentage of all workers with college degrees who were women (48%).

Figure E-11.
Demographics of civil engineers and workers 25 and older with a college degree, 2009-2011

Nevada	Workers 25+ with a college degree (n=9,119)	Civil engineering workforce (n=87)	
Race/ethnicity			
African American	6.5 %	0.0 %	**
Asian-Pacific American	13.7	9.3	
Subcontinent Asian American	0.9	2.7	
Hispanic American	8.3	12.2	
Native American	0.9	0.1	**
Other minority group	0.3	3.2	
Total minority	30.5 %	27.6 %	
Non-Hispanic white	69.5	72.4	
Total	100.0 %	100.0 %	
Gender			
Female	47.7 %	6.5 %	**
Male	52.3	93.5	**
Total	100.0 %	100.0 %	

United States	Workers 25+ with a college degree (n=452,049)	Civil engineering workforce (n=3,295)	
Race/ethnicity			
African American	8.1 %	4.4 %	**
Asian-Pacific American	6.6	8.6	**
Subcontinent Asian American	2.7	3.1	
Hispanic American	6.9	6.0	
Native American	0.7	0.8	
Other minority group	0.2	0.7	**
Total minority	25.2 %	23.7 %	
Non-Hispanic white	74.8	76.3	**
Total	100.0 %	100.0 %	
Gender			
Female	48.8 %	13.5 %	**
Male	51.2	86.5	**
Total	100.0 %	100.0 %	

Note: ** Denotes that the difference in proportions between civil engineers and workers 25+ with a college degree for the given Census/ACS year is statistically significant at the 95% confidence level.

Source: BBC Research & Consulting from the 2009-2011 ACS Public Use Micro-sample data. The raw data extracts were obtained through the IPUMS program of the MN Population Center: http://usa.ipums.org/usa/.

Summary

The study team's analyses suggest that there are barriers to entry for certain minority groups and for women in the construction and engineering industries in Nevada.

- Fewer African Americans worked in the Nevada construction industry than what might be expected based on their representation in the overall workforce and analysis of educational requirements in the industry.
- Fewer African Americans and Asian-Pacific Americans worked in the Nevada engineering industry than what might be expected based on analyses of workers 25 and older with a college degree.
- Women accounted for particularly few workers in the Nevada construction and engineering industries.

These barriers might affect the relative number of minority and female business owners in these industries in Nevada.

The study team also examined advancement in the Nevada construction industry.

- Representation of minorities and women was much lower in certain construction trades (including first-line supervisors) compared with other trades.
- Compared to non-Hispanic whites working in the construction industry, African Americans and Hispanic Americans were less likely to be managers.

Barriers to advancement in the Nevada construction industry may also be a reason for the relatively low number of minority and female business owners.

Appendix F, which follows, examines rates of business ownership among individuals working in Nevada construction and engineering jobs.

APPENDIX F.
Business Ownership in the Nevada Construction and Engineering Industries

About one in seven construction workers in Nevada was a self-employed business owner in 2009 through 2011. One in ten workers in the local engineering industry was a self-employed business owner. Focusing on those two industries, the study team examined business ownership for different racial/ethnic and gender groups in Nevada. The study team used Public Use Microdata Samples (PUMS) from the 1980 and 2000 Census and from the 2009 through 2011 American Community Survey (ACS) to study business ownership rates in the construction and engineering industries. Note that "self-employment" and "business ownership" are used interchangeably in Appendix F.

BBC Research & Consulting (BBC) prepared the analyses in Appendix F under the direction of David Keen of Keen Independent. Keen Independent was the final author of this appendix.

Business Ownership Rates

Many studies have explored differences between minority and non-minority business ownership at the national level.[1] Although overall self-employment rates have increased for minorities and women over time, a number of studies indicate that race/ethnicity and gender continue to affect opportunities for business ownership. The extent to which such individual characteristics may limit business ownership opportunities differs across industries and from state to state.

Construction industry. Compared to other industries, construction has a large number of business owners. In 2009 through 2011, 11 percent of workers in the Nevada construction industry were self-employed (in incorporated or unincorporated businesses) compared with only 8 percent of workers across all industries. However, rates of self-employment in the Nevada construction industry vary by race/ethnicity and gender. Figure F-1 shows the percentage of workers who were self-employed in the construction industry by group for 1980, 2000, and 2009 through 2011 in Nevada and the United States as a whole.

[1] See, for example, Waldinger, Roger and Howard E. Aldrich. 1990. Ethnicity and Entrepreneurship. Annual Review of Sociology. 111-135.; Fairlie, Robert W. and Bruce D. Meyer. 1996. Ethnic and Racial Self-Employment Differences and Possible Explanations. The Journal of Human Resources, Volume 31, Issue 4, 757-793.; Fairlie, Robert W. and Alicia M. Robb. 2007. Why are Black-Owned Businesses Less Successful than White-Owned Businesses? The Role of Families, Inheritances and Business Human Capital. Journal of Labor Economics, 25(2), 289-323.; and Fairlie, Robert W. and Alicia M. Robb. 2006. Race, Families and Business Success: A Comparison of African-American-, Asian-, and White-Owned Businesses. Russell Sage Foundation.

Figure F-1.
Percentage of workers in the construction industry who were self-employed, 1980, 2000, and 2009-2011

Nevada	1980			2000			2009-2011		
Race/ethnicity									
African American	2.6	%		2.7	%	**	9.5	%	
Asian-Pacific American	0.0			12.5			18.0		
Subcontinent Asian American	0.0			0.0			0.0		
Hispanic American	8.5		*	3.9		**	7.8		**
Native American	6.3			6.7		**	7.8		
Other race minority	0.0			22.8			0.0		
Non-Hispanic white	14.3			13.5			13.7		
Gender									
Female	11.6	%		10.7	%		8.3	%	*
Male	13.5			10.0			11.7		
All individuals	13.3	%		10.1	%		11.3	%	

United States	1980			2000			2009-2011		
Race/ethnicity									
African American	9.0	%	**	15.7	%	**	18.9	%	**
Asian-Pacific American	11.2		**	21.4		**	25.0		*
Subcontinent Asian American	5.9		**	19.6		**	27.7		
Hispanic American	10.5		**	12.6		**	17.4		**
Native American	9.5		**	19.0		**	18.0		**
Other race minority	14.8		*	23.7			21.2		*
Non-Hispanic white	19.1			25.2			27.5		
Gender									
Female	9.5	%	**	17.1	%	**	16.4	%	**
Male	18.5			22.9			25.2		
All individuals	17.7	%		22.3	%		24.4	%	

Note: *, ** Denotes that the difference in proportions between the minority and non-Hispanic white groups (or female and male groups) for the given Census/ACS year is statistically significant at the 90% or 95% confidence level, respectively.

Source: BBC Research & Consulting from 1980 and 2000 U.S. Census 5% sample and 2009-2011 ACS Public Use Microdata samples. Results from 1980 and 2000 were taken from the 2007 NDOT Availability and Disparity Study prepared by BBC Research & Consulting. The 2009-2011 raw data extract was obtained through the IPUMS program of the MN Population Center: http://usa.ipums.org/usa/.

Business ownership rates in 2000. The 2000 Census provides information on the largest sample of construction workers of any of the data sets examined. In 2000, about 14 percent of non-Hispanic whites working in the Nevada construction industry were self-employed. Business ownership rates were lower for African Americans, Hispanic Americans and Native Americans (statistically significant differences).

- About 3 percent of African Americans in the Nevada construction industry owned businesses, approximately one-fifth of the rate for non-Hispanic whites.
- About 4 percent of Hispanic Americans in the construction industry owned businesses, less than one-third of the rate for non-Hispanic whites.

- The ownership rate of Native Americans in the construction industry was 7 percent, about half of the rate for non-Hispanic whites.
- The difference in the business ownership rate of Asian-Pacific Americans and non-Hispanic whites in the Nevada construction industry was not statistically significant.
- There were no Subcontinent Asian American construction industry business owners in the dataset.

Ten percent of men and 11 percent of women working in the construction industry in Nevada owned businesses in 2000. That difference was not statistically significant.

Although construction business ownership rates in Nevada are lower than the United States as a whole for most racial/ethnic groups, disparities in business ownership rates for are similar. However, in 2000, women were less likely to own businesses than men in the construction industry at the national level.

Business ownership in 2009-2011. Business ownership rates in the Nevada construction industry increased among most minority groups between 2000 and 2009-2011.

- Even with the increase in the business ownership rate of Hispanic Americans (4% in 2000 and 8% in 2009-2011), there was a statistically significant difference between results for that group and the ownership rate of non-Hispanic whites (14%).
- About 8 percent of Native Americans in the construction industry owned businesses, less than the rate for non-Hispanic whites but not a statistically significant difference due to the small number of Native Americans in construction in the 2009-2011 sample data.
- The business ownership rate for African Americans was 10 percent in 2009-2011 (not a statistically significant difference from the rate for non-Hispanic whites).

There were no Subcontinent Asian American construction industry business owners in the 2009-2011 dataset.

The business ownership rate for women in 2009 through 2011 was 8 percent, less than the 12 percent ownership rate for men in 2009 through 2011 (a statistically significant difference).

Engineering industry. The study team also examined business ownership rates in the Nevada engineering industry. Figure F-2 presents the percentage of workers who were self-employed in the engineering industry in 2009 through 2011.

Figure F-2.
Percentage of workers in the engineering industry who were self-employed, 2009-2011

Note:

*, ** Denotes that the difference in proportions between the minority and non-Hispanic white groups (or female and male groups) for the given Census/ACS year is statistically significant at the 90% or 95% confidence level, respectively.

Source:

BBC Research & Consulting from 2009-2011 ACS Public Use Microdata samples. The 2009-2011 raw data extract was obtained through the IPUMS program of the MN Population Center: http://usa.ipums.org/usa/.

Nevada	2009-2011		
Race/ethnicity			
African American	7.3	%	
Asian-Pacific American	9.2		
Subcontinent Asian American	0.0		
Hispanic American	7.8		
Native American	0.0		
Other race minority	0.0		
Non-Hispanic white	11.0		
Gender			
Female	4.7	%	**
Male	12.5		
All individuals	10.3	%	

United States	2009-2011		
Race/ethnicity			
African American	5.4	%	**
Asian-Pacific American	7.0		**
Subcontinent Asian American	5.7		**
Hispanic American	9.2		**
Native American	13.1		
Other race minority	4.0		**
Non-Hispanic white	12.8		
Gender			
Female	7.1	%	**
Male	13.3		
All individuals	11.6	%	

As shown in Figure F-2, the rate of business ownership in the Nevada engineering industry for non-Hispanic whites was 11 percent in 2009 through 2011. Business ownership rates were lower for minorities working in the industry:

- The business ownership rate for African Americans was 7 percent, about two-thirds of the rate for non-Hispanic whites.
- The rate for Hispanic Americans was 8 percent, lower than the rate for non-Hispanic whites.
- The rate for Asian-Pacific Americans was 9 percent, less than the rate for non-Hispanic whites.
- There were no Native American or Subcontinent Asian American engineering industry business owners in the dataset (business ownership rates of 0 percent).

The above differences in ownership rates were not statistically significant due to the small number of minorities in the sample of people working in the engineering industry in Nevada.

Figure F-2 also compares business ownership rates for women and men working in the Nevada engineering industry. Approximately 5 percent of women working in the industry in 2009 through 2011 were business owners compared with about 13 percent of men in the industry, a statistically significant difference.

Potential causes of differences in business ownership rates. Nationally, researchers have examined whether there are disparities in business ownership rates after considering personal characteristics such as education and age. Several studies have found that disparities in business ownership still exist even after accounting for such factors.

- Some studies have concluded that access to financial capital is a strong determinant of business ownership. Researchers have consistently found a positive relationship between start-up capital and business formation, expansion, and survival.[2] In addition, one study found that housing appreciation measured at the Metropolitan Statistical Area level is a positive determinant of becoming self-employed.[3] However, unexplained differences still exist when statistically controlling for those factors.[4] Access to capital is discussed in more detail in Appendix G.
- Education has a positive effect on the probability of business ownership in most industries. However, results of multiple studies indicate that minorities are still less likely to own a business than non-minorities with similar levels of education.[5]
- Intergenerational links affect one's likelihood of self-employment. One study found that experience working for a self-employed family member increases the likelihood of business ownership for minorities.[6]
- Time since immigration and assimilation into American society are also important determinants of self-employment, but unexplained differences in business ownership between minorities and non-minorities still exist when accounting for those factors.[7]

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[2] See Lofstrom, Magnus and Chunbei Wang. 2006. *Hispanic Self-Employment: A Dynamic Analysis of Business Ownership.* Working paper, Forschungsinstitut zur Zukunft der Arbeit (Institute for the Study of Labor).; and Fairlie, Robert W. and Alicia M. Robb. 2006. *Race, Families and Business Success: A Comparison of African-American-, Asian-, and White-Owned Businesses.* Russell Sage Foundation.

[3] Fairlie, Robert W. and Harry A. Krashinksy. 2006. Liquidity Constraints, Household Wealth and Entrepreneurship Revisited.

[4] Lofstrom, Magnus and Chunbei Wang. 2006. *Hispanic Self-Employment: A Dynamic Analysis of Business Ownership.* Working paper, Forschungsinstitut zur Zukunft der Arbeit (Institute for the Study of Labor).

[5] See Fairlie, Robert W. and Bruce D. Meyer. 1996. *Ethnic and Racial Self-Employment Differences and Possible Explanations.* The Journal of Human Resources, Volume 31, Issue 4, 757-793; and Butler, John Sibley and Cedric Herring. 1991. *Ethnicity and Entrepreneurship in America: Toward an Explanation of Racial and Ethnic Group Variations in Self-Employment.* Sociological Perspectives. 79-94.

[6] See Fairlie, Robert W. and Alicia M. Robb. 2006. Race, Families and Business Success: A Comparison of African-American-, Asian-, and White-Owned Businesses. Russell Sage Foundation; and Fairlie, Robert W. and Alicia M. Robb. 2007. *Why are Black-Owned Businesses Less Successful than White-Owned Businesses? The Role of Families, Inheritances and Business Human Capital.* Journal of Labor Economics, 25(2), 289-323.

[7] See Fairlie, Robert W. and Bruce D. Meyer. 1996. *Ethnic and Racial Self-Employment Differences and Possible Explanations.* The Journal of Human Resources, Volume 31, Issue 4, 757-793; and Butler, John Sibley and Cedric Herring. 1991. *Ethnicity and Entrepreneurship in America: Toward an Explanation of Racial and Ethnic Group Variations in Self-Employment.* Sociological Perspectives. 79-94.

Business Ownership Regression Analysis

Race/ethnicity and gender can affect opportunities for business ownership, even when accounting for individuals' race- and gender-neutral personal characteristics such as education, age, and familial status. To further examine business ownership, the study team developed multivariate regression models to explore patterns of business ownership in Nevada. Those models estimate the effect of race/ethnicity and gender on the probability of business ownership while statistically controlling for other factors.

An extensive body of literature examines whether race- and gender-neutral personal factors such as access to financial capital, education, age, and family characteristics (e.g., marital status) help explain differences in business ownership. That subject has also been examined in other disparity studies. For example, prior studies in Minnesota and Illinois have used econometric analyses to investigate whether disparities in business ownership for minorities and women working in the construction and engineering industries persist after statistically controlling for race- and gender-neutral personal characteristics. [8, 9] Those studies have incorporated probit econometric models using PUMS data from the 2000 Census and have been among the materials that agencies have submitted to courts in subsequent litigation concerning the implementation of the Federal DBE Program.

The study team used similar probit regression models to predict business ownership from multiple independent or "explanatory" variables.[10] Independent variables included:

- Personal characteristics that are potentially linked to the likelihood of business ownership — age, age-squared, disability, marital status, number of children in the household, number of elderly people in the household, and English-speaking ability;
- Indicators of educational attainment;
- Measures and indicators related to personal financial resources and constraints — home ownership, home value, monthly mortgage payment, dividend and interest income, and additional household income from a spouse or unmarried partner; and
- Variables representing the race/ethnicity and gender of the individuals included in the analysis.[11]

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[8] National Economic Research Associates, Inc. 2000. *Disadvantaged Business Enterprise Availability Study*. Prepared for the Minnesota Department of Transportation.

[9] National Economic Research Associates, Inc. 2004. *Disadvantaged Business Enterprise Availability Study*. Prepared for the Illinois Department of Transportation.

[10] Probit models estimate the effects of multiple independent or "predictor" variables in terms of a single, dichotomous dependent or "outcome" variable — in this case, business ownership. The dependent variable is binary, coded as "1" for individuals in a particular industry who are self-employed and "0" for individuals who are not self-employed. The model enables estimation of the probability that workers in a given sample are self-employed, based on their individual characteristics. The study team excluded observations where the Census Bureau had imputed values for the dependent variable (business ownership).

[11] The study team also considered an interaction variable to represent the combined effect of being a minority and female but the term was not significant in any models and was excluded from the final regression models.

The study team developed two probit regression models using PUMS data from the 2009 through 2011 ACS:

- A model for the Nevada construction industry that included 2,878 observations; and
- A model for the Nevada engineering industry that included 380 observations.

Nevada construction industry in 2009-2011. Figure F-3 presents the coefficients for the probit model for individuals working in the Nevada construction industry in 2009-2011. Several factors were important and statistically significant in predicting the probability of business ownership:

- Higher home values were associated with a higher probability of business ownership;
- Higher levels of educational attainment (some college and/or four-year degree) were associated with a greater likelihood of business ownership; and
- Larger numbers of people over the age of 65 in households were associated with a lower likelihood of business ownership.

After statistically controlling for factors other than race and gender, there were statistically significant disparities in business ownership rates for women working in the Nevada construction industry. The model did not identify statistically significant effects from race/ethnicity, perhaps due to small sample sizes.

Figure F-3.
Nevada construction industry business ownership model, 2009-2011

Variable	Coefficient
Constant	-1.8249 **
Age	0.0027
Age-squared	0.0002
Married	-0.1973
Disabled	0.0364
Number of children in household	0.0345
Number of people over 65 in household	-0.2814 *
Owns home	-0.0580
Home value ($0,000s)	0.0063 **
Monthly mortgage payment ($0,000s)	1.0830
Interest and dividend income ($0,000s)	0.0266
Income of spouse or partner ($0,000s)	0.0117
Speaks English well	-0.1040
Less than high school education	0.0963
Some college	0.2170 *
Four-year degree	0.3757 *
Advanced degree	0.2687
African American	-0.1595
Asian-Pacific American	0.2145
Hispanic American	-0.0593
Native American	-0.4123
Female	-0.4677 **

Note:

There were no Subcontinent Asian American or "other race minority" business owners in the regression dataset so those minority group observations were excluded from the model.

*,** Denote statistical significance at the 90% and 95% confidence levels, respectively.

Source:

BBC Research & Consulting from 2009-2011 ACS data. The raw data extract was obtained through the IPUMS program of the MN Population Center: http://usa.ipums.org/usa/.

Another limitation of the regression analysis is that "neutral" factors such as home values have a relationship with the race and ethnicity of the homeowner, as explored in Appendix G. Inclusion of these factors may make it difficult to identify any disparities in business ownership rates.

Simulations of business ownership rates. Probit modeling allowed for further analysis of the disparities identified in business ownership rates for women. The study team modeled business ownership rates for women as if they had the same probability of business ownership as similarly situated non-Hispanic white males. To conduct those simulations, the study team took the following steps:

1. The study team performed a probit regression analysis predicting business ownership using only non-Hispanic white male construction workers in the dataset.[12]
2. The study team then used the coefficients from that model and the mean personal, financial, and educational characteristics of non-Hispanic white women working in the Nevada construction industry (i.e., indicators of educational attainment as well as indicators of personal financial resources and constraints) to estimate the probability of business ownership of women.

Figure F-4 presents the simulated business ownership rate (i.e., "benchmark" rate) for non-Hispanic white women (18.4%) and compares it to the actual, observed mean probabilities of business ownership for that group (8.9%). The disparity index was calculated by taking the actual business ownership rate for non-Hispanic white women, dividing it by that group's benchmark rate and then multiplying the result by 100. Simulation results indicate that non-Hispanic white women (disparity index of 48) own businesses at about half the rate that would be expected based on the simulated business ownership rates of similarly-situated non-Hispanic white male construction workers.

Similar simulation approaches have been incorporated in other disparity studies that courts have reviewed.

Figure F-4.
Comparison of actual business ownership rates to simulated rates for female Nevada construction workers, 2009-2011

Group	Self-employment rate		Disparity index
	Actual	Benchmark	(100 = parity)
Non-Hispanic white female	8.9%	18.4%	48

Note: As the benchmark figure can only be estimated for records with an observed (rather than imputed) dependent variable, comparison is made with only this subset of the sample. For this reason, actual self-employment rates may differ slightly from those in Figure F-1.

Source: BBC Research & Consulting from statistical models of 2009-2011 ACS data. The raw data extract was obtained through the IPUMS program of the MN Population Center: http://usa.ipums.org/usa/.

[12] That version of the model excluded the race/ethnicity and gender indicator variables, because the value of all of those variables would be the same (i.e., 0).

Nevada engineering industry in 2009 through 2011. The study team developed a separate business ownership model for the Nevada engineering industry using 2009 through 2011 ACS data. Figure F-5 presents the coefficients from that probit model.[13] None of the race- and gender-neutral factors were statistically significant predictors of business ownership for the engineering industry in Nevada in 2009 through 2011.

After statistically controlling certain other factors, the regression model for the Nevada engineering industry indicated that women working in the industry were less likely than men to own businesses. Although most minority groups had lower rates of business ownership than non-minorities, the race/ethnicity terms in the model were not statistically significant, perhaps due to small sample sizes.

Figure F-5.
Nevada engineering industry business ownership model, 2009-2011

Note:

There were no Subcontinent Asian American, Native American or "other race minority" business owners in the regression dataset so those minority group observations were excluded from the model. Speaking English well was also excluded because all but two individuals in the dataset spoke English well.

*,** Denote statistical significance at the 90% and 95% confidence levels, respectively.

Source:

BBC Research & Consulting from 2009-2011 Census data. The raw data extract was obtained through the IPUMS program of the MN Population Center: http://usa.ipums.org/usa/.

Variable	Coefficient
Constant	-3.9171 *
Age	0.0940
Age-squared	-0.0005
Disabled	-0.0578
Married	0.0200
Number of children in household	0.0318
Number of people over 65 in household	-0.2003
Owns home	-0.2751
Home value ($0,000s)	0.0000
Monthly mortgage payment ($0,000s)	0.0591
Interest and dividend income ($0,000s)	0.0003
Income of spouse or partner ($0,000s)	0.0026
Less than high school education	-0.2564
Some college	-0.6298
Four-year degree	-0.0482
Advanced degree	-0.7222
African American	0.0560
Asian-Pacific American	-0.2966
Hispanic American	-0.0458
Female	-0.7389 **

Simulations of business ownership rates. The study team simulated business ownership rates in the Nevada engineering industry using the same approach used for the construction industry. Figure F-6 presents actual and simulated ("benchmark") business ownership rates for non-Hispanic white women in the Nevada engineering industry. The study team performed those simulations only for women, because gender was statistically significant whereas the race/ethnicity terms were not.

Approximately 5 percent of non-Hispanic white women in the Nevada engineering industry were business owners in 2009 through 2011 compared with a benchmark business ownership rate of about 15 percent (disparity index of 32). Those results indicate that women working in the Nevada engineering industry own businesses at approximately one-third of the rate observed for similarly-situated men based on the 2009-2011 ACS data.

[13] Speaking English well was excluded from the engineering industry model because nearly every individual in the dataset spoke English well.

Figure F-6.
Comparison of actual business ownership rates to simulated rates for female Nevada workers in the engineering industry, 2009-2011

Group	Self-employment rate		Disparity index
	Actual	Benchmark	(100 = parity)
Non-Hispanic white female	4.6%	14.5%	32

Note: As the benchmark figure can only be estimated for records with an observed (rather than imputed) dependent variable, comparison is made with only this subset of the sample. For this reason, actual self-employment rates may differ slightly from those in Figure F-2.

Source: BBC Research & Consulting from statistical models of 2009-2011 ACS data. The raw data extract was
obtained through the IPUMS program of the MN Population Center: http://usa.ipums.org/usa/.

Summary of Business Ownership in the Construction and Engineering Industries

Disparities in business ownership were present in the Nevada construction industry:

- In both 2000 and 2009 through 2011, business ownership rates for Hispanic Americans were substantially lower than that of non-Hispanic whites. Business ownership rates were lower for African Americans and Native Americans in 2000 but not in 2009 through 2011.
- In 2009 through 2011, women working in the local construction industry had substantially lower rates of business ownership than men. After statistically controlling for a number of other factors affecting business ownership, substantial and statistically significant disparities persisted in business ownership rates for women.
- The business ownership regression analysis did not identify statistically significant disparities for individual minority groups for the Nevada construction industry.

The study team also identified disparities in business ownership rates in the Nevada engineering industry:

- Compared to non-Hispanic whites, business ownership rates were lower for all minority groups in 2009 through 2011, but those differences were not statistically significant in part due to smaller sample sizes for those groups.
- In 2009 through 2011, women working in the engineering industry in Nevada had substantially lower business ownership rates than men (statistically significant difference).
- The study team used regression models to investigate the presence of race/ethnicity- and gender-based disparities in business ownership rates in 2009 through 2011 after accounting for the effects of race- and gender-neutral factors. The results indicated substantial disparities for women.
- The business ownership regression analysis did not identify statistically significant disparities for individual minority groups for the Nevada engineering industry.

APPENDIX G.
Access to Capital for Business Formation and Success

Access to capital is one factor that researchers have examined when studying business formation and success. If race- or gender-based discrimination exists in capital markets, minorities and women may have difficulty acquiring the capital necessary to start, operate, or expand businesses.[1, 2] Researchers have also found that the amount of start-up capital can affect long-term business success, and, on average, minority- and women-owned businesses appear to have less start-up capital than non-Hispanic white-owned businesses and male-owned businesses.[3] For example:

- In 2007, 30 percent of majority-owned businesses that responded to a national U.S. Census Bureau survey indicated that they had start-up capital of $25,000 or more.[4]
- Only 17 percent of African American-owned businesses indicated a comparable amount of start-up capital;
- Disparities in start-up capital were identified for every other minority group except Asian Americans.
- Nineteen percent of female-owned businesses reported start-up capital of $25,000 or more compared with 32 percent of male-owned businesses (not including businesses that were equally owned by men and women).

Race- or gender-based discrimination in start-up capital can have long-term consequences, as can discrimination in access to business loans after businesses have already been formed.[5]

Keen Independent worked with BBC Research & Consulting, a study team subconsultant, to examine access to capital in Nevada. Appendix G presents study team information about homeownership and mortgage lending, because home equity can be an important source of capital to start and expand businesses. The appendix then presents information about business loans, assessing whether minorities and females experience any difficulties acquiring business capital.

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[1] For example, see Mitchell, Karlyn and Douglas K. Pearce. 2005. "Availability of Financing to Small Firms Using the Survey of Small Business Finances." U.S. Small Business Administration, Office of Advocacy. 57.

[2] Fairlie, Robert W. and Alicia M. Robb. 2010. *Race and Entrepreneurial Success*. Cambridge: MIT Press.

[3] Ibid.

[4] Business owners were asked, "What was the total amount of capital used to start or acquire this business? (Capital includes savings, other assets, and borrowed funds of owner(s))." From U.S. Census Bureau, Statistics for All U.S. Firms by Total Amount of Capital Used to Start or Acquire the Business by Industry, Gender, Ethnicity, Race, and Veteran Status for the U.S.: 2007 Survey of Business Owners: http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=SBO_2007_00CSCB16&prodType=table

[5] Fairlie, Robert W. and Alicia M. Robb. 2010. *Race and Entrepreneurial Success*. Cambridge: MIT Press.

Homeownership and Mortgage Lending

The study team analyzed homeownership and the mortgage lending industry to explore differences across race/ethnicity and gender that may lead to disparities in access to capital.

Homeownership. Wealth created through homeownership can be an important source of capital to start or expand a business.[6] In sum:

- A home is a tangible asset that provides borrowing power;[7]
- Wealth that accrues from housing equity and tax savings from homeownership contributes to capital formation;[8]
- Next to business loans, mortgage loans have traditionally been the second largest loan type for small businesses;[9] and
- Homeownership is associated with an estimated 30 percent reduction in the probability of loan denial for small businesses.[10]

Any barriers to homeownership and home equity growth for minorities and women can affect business opportunities by constraining their available funding. Similarly, any barriers to accessing home equity through home mortgages can also affect available capital for new or expanding businesses. The study team analyzed homeownership rates and home values before considering loan denial and subprime lending.

Homeownership rates. Many studies have documented past discrimination in the national housing market. The United States has a history of restrictive real estate covenants and property laws that affect the ownership rights of minorities and women.[11] For example, in the past, a woman's participation in homeownership was secondary to that of her husband and parents.[12]

The Keen Independent study team used 2009-2011 American Community Survey (ACS) data to examine homeownership rates in Nevada and in the United States. Figure G-1 presents homeownership rates for minority groups and non-Hispanic whites.

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[6] The housing and mortgage crisis beginning in late 2006 has substantially impacted the ability of small businesses to secure loans through home equity. The consequences of the housing and mortgage crisis on small businesses and MBE/WBEs are discussed later in Appendix G.

[7] Nevin, Allen. 2006. "Homeownership in California: A CBIA Economic Treatise." *California Building Industry Association*. 2.

[8] Jackman, Mary R. and Robert W. Jackman 1980. "Racial Inequalities in Home Ownership." *Social Forces*. 58. 1221-1234.

[9] Berger, Allen N. and Gregory F. Udell. 1998. "The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle." *Journal of Banking and Finance*. 22.

[10] Cavalluzzo, Ken and John Wolken. 2005. "Small Business Loan Turndowns, Personal Wealth and Discrimination." *Journal of Business*. 78:2153-2178.

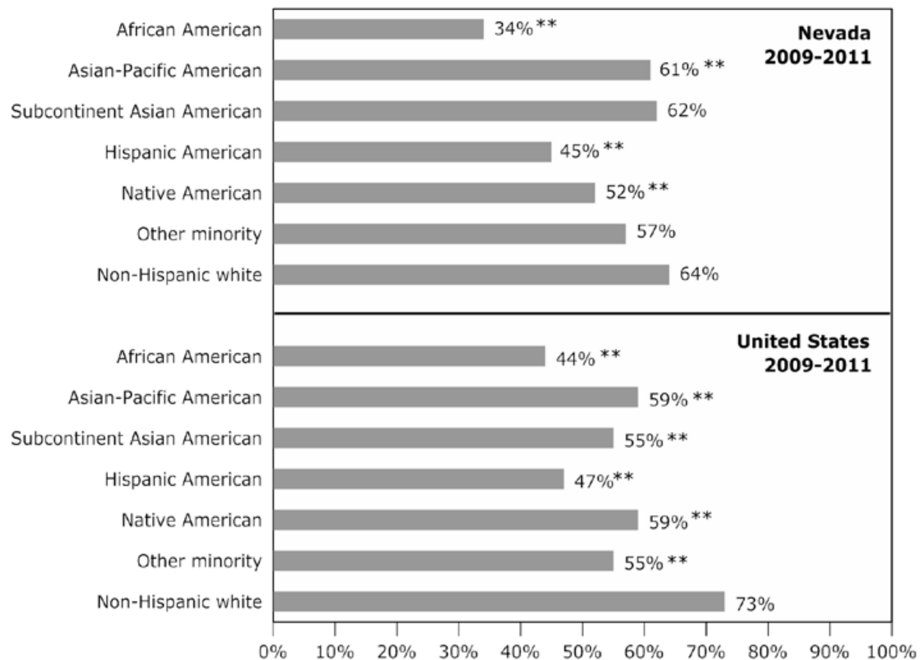
[11] Ladd, Helen F. 1982. "Equal Credit Opportunity: Women and Mortgage Credit." *The American Economic Review*. 72:166-170.

[12] Card, Emily. 1980. "Women, Housing Access, and Mortgage Credit." *Signs*. 5:215-219.

As shown in Figure G-1, about two-thirds of non-Hispanic white households (64%) owned homes in Nevada in 2009 through 2011, but homeownership rates were much lower for minorities.[13]

- Approximately 34 percent of African American households were homeowners, a homeownership rate lower than all other minority groups and close to half that of non-Hispanic whites;
- About 45 percent of Hispanic American households were homeowners;
- Homeownership rates for Subcontinent Asian Americans and Asian-Pacific Americans were 61 percent and 62 percent, respectively; and
- Native American households owned homes at a rate of 52 percent.

Figure G-1.
Homeownership rates, 2009-2011



Note:

The sample universe is all households.

** Denotes that the difference in proportions from non-Hispanic white for the given year is statistically significant at the 95% confidence level.

Source:

BBC Research & Consulting from 2009-2011 ACS data. The raw data extract was obtained through the IPUMS program of the MN Population Center: http://usa.ipums.org/usa/.

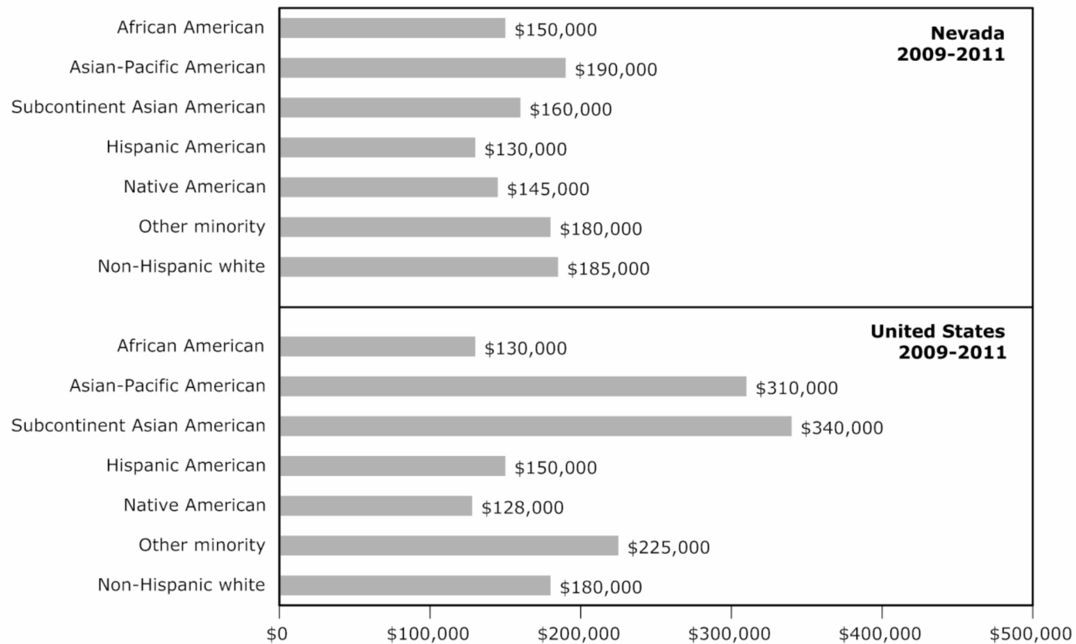
Lower rates of homeownership may reflect lower incomes for minorities. That relationship may be self-reinforcing, as low wealth puts individuals at a disadvantage in becoming homeowners, which has historically been a path to building wealth. An older study found that the probability of homeownership is considerably lower for African Americans than it is for comparable non-Hispanic whites throughout the United States.[14]

[13] Although not presented in this report, the study team also examined homeownership rates for heads of households working in the construction and engineering industries. Minorities in both industries had a lower rate of home ownership than non-Hispanic whites in Nevada.

[14] Jackman. 1980. "Racial Inequalities in Home Ownership."

Home values. Research has shown homeownership and home values to be direct determinants of available capital to form or expand businesses.[15] Using 2009 through 2011 ACS data, the study team compared median home values by racial/ethnic group. Figure G-2 presents results for Nevada and the United States as a whole.

Figure G-2.
Median home values, 2009-2011



Note: The sample universe is all owner-occupied housing units.

Source: BBC Research & Consulting from 2009-2011 American Community Survey data. The raw data extract was obtained through the IPUMS program of the MN Population Center: http://usa.ipums.org/usa/.

In 2009 through 2011, the median value of homes owned by non-Hispanic whites in Nevada was approximately $185,000, substantially greater than the median value of homes owned by Native Americans ($145,000), Hispanic Americans ($130,000), African Americans ($150,000) and Subcontinent Asian Americans ($160,000). On average, Asian-Pacific Americans owned homes of greater value than non-Hispanic whites. Similar patterns were evident in the United States as a whole.

Mortgage lending. Minorities may be denied opportunities to own homes, to purchase more expensive homes, or to access equity in their homes if they are discriminated against when applying for home mortgages. In a recent lawsuit, Bank of America paid $335 million to settle allegations that its Countrywide Financial unit discriminated against African American and Hispanic American borrowers between 2004 and 2008. The case was brought by the Securities and Exchange

[15] Fairlie, Robert W. and Harry A. Krashinky. 2006. "Liquidity Constraints, Household Wealth, and Entrepreneurship Revisited." IZA Discussion Paper. No. 2201.

Commission after finding evidence of "statistically significant disparities by race and ethnicity" among Countrywide Financial customers.[16]

Keen Independent and BBC explored market conditions for mortgage lending in Nevada and in the nation as a whole. The best available source of information concerning mortgage lending is Home Mortgage Disclosure Act (HMDA) data, which contain information on mortgage loan applications that financial institutions, savings banks, credit unions, and some mortgage companies receive.[17] Those data include information about the location, dollar amount, and types of loans made, as well as race/ethnicity, income, and credit characteristics of all loan applicants. The data are available for home purchases, loan refinances, and home improvement loans.

The study team examined HMDA statistics provided by the Federal Financial Institutions Examination Council (FFIEC) for 2006, 2009, and 2011. Although 2011 provides the most current representation of the home mortgage market, the 2006 data represent a more complete data set from before the recent mortgage crisis. Many of the institutions that originated loans in 2006 were no longer in business by the 2011 reporting date for HMDA data.[18] For example, the 2006 HMDA data include information about 528,000 loan applications in Nevada that approximately 800 lenders processed. The 2011 HMDA data for Nevada include information about 112,000 loan applications that about 500 lenders processed. In addition, the percentage of government-insured loans, which the study team did not include in its analysis, increased dramatically between 2006 and 2011, decreasing the proportion of total loans that the study team analyzed in the 2011 data.[19]

Mortgage denials. The study team examined mortgage denial rates on conventional loan denial rates for high-income borrowers. Conventional loans are loans that are not insured by a government program. High-income borrowers are those households with 120 percent or more of the U.S. Department of Housing and Urban Development (HUD) area median family income.[20] Loan denial rates are calculated as the percentage of mortgage loan applications that were denied, excluding

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[16] Savage, Charlie. December 22, 2011. "$335 Million Settlement on Countywide Lending Bias." *NYTimes.com*. Available online at: http://www.nytimes.com/2011/12/22/business/us-settlement-reported-on-countrywide-lending.html

[17] Financial institutions were required to report 2011 HMDA data if they had assets of more than $40 million ($35 million for 2006), have a branch office in a metropolitan area, and originated at least one home purchase or refinance loan in the reporting calendar year. Mortgage companies are required to report HMDA data if they are for-profit institutions, had home purchase loan originations exceeding 10 percent of all loan obligations in the past year, are located in a Metropolitan Statistical Area (MSA; or originated five or more home purchase loans in an MSA) and either had more than $10 million in assets or made at least 100 home purchase or refinance loans in the calendar year.

[18] According to an article by the Federal Reserve, the volume of reported loan applications and originations fell sharply from 2007 to 2008 after previously falling between 2006 and 2007. See Avery, Brevoort, and Canner, "The 2008 HMDA Data: The Mortgage Market during a Turbulent Year." Available online: http://www.federalreserve.gov/pubs/bulletin/2009/pdf/hmda08draft.pdf.

[19] Loans insured by government programs have surged since 2006. In 2006, about 10 percent of first lien home loans were insured by a government program. More than half of home loans were insured by the government in 2009. Source: "The 2009 HMDA Data: The Mortgage Market in a Time of Low Interest Rates and Economic Distress," *Federal Reserve Bulletin*. December 2010, pp A39-A77.

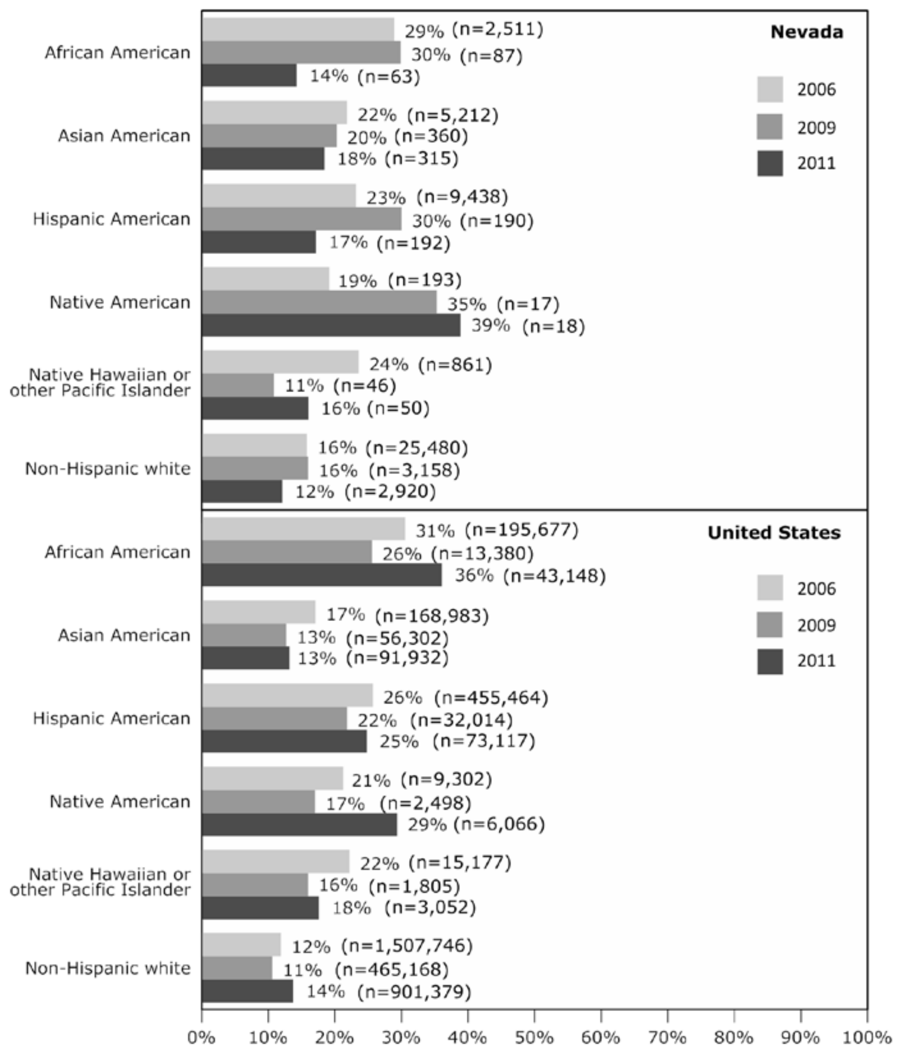
[20] The median family income in 2011 was about $61,000 for the United States as a whole and $57,000 for Nevada (in 2011 dollars). Median family income for 2006 was about $65,000 for the United States as a whole and $69,000 for Nevada (in 2011 dollars). Source: U.S. Census Bureau, 2011 and 2006 American Community Surveys.

applications that the potential borrowers terminated and applications that were closed due to incompleteness.[21]

Figure G-3 presents loan denial results for Nevada and the U.S. in 2006, 2009, and 2011. In 2006, African American, Asian American, Hispanic American, Native American and Native Hawaiian or other Pacific Islander high-income applicants all exhibited higher loan denial rates compared with high-income non-Hispanic white applicants.[22]

In 2009 and in 2011, disparities remained for high-income minority loan applicants in Nevada relative to non-Hispanic whites, except for Native Hawaiians in 2009.

Figure G-3.
Denial rates of conventional purchase loans to high-income households, 2006, 2009 and 2011



Note:

High-income borrowers are those households with 120% or more than the HUD area median family income (MFI).

Loan denial rates are calculated as the percentage of mortgage loan applications that were denied, excluding applications that the potential borrowers terminated and applications that were closed due to incompleteness.

Source:

FFIEC HMDA data 2006, 2009 and 2011.

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[21] For this analysis, loan applications are considered to be applications for which a specific property was identified, thus excluding preapproval requests.

[22] HMDA data group Native Hawaiians and other Pacific Islanders into a single category. According to 49 CFR 26.5 Native Hawaiians are considered Native Americans but other Pacific Islanders are considered Asian. Since the HMDA racial group cannot be split nor accurately included in Native Americans or Asian Americans, it is shown as an individual racial category.

Additional research. Several national studies have examined disparities in loan denial rates and loan amounts for minorities in the presence of other influences. For example:

- A study by the Federal Reserve Bank of Boston is one of the most cited studies of mortgage lending discrimination.[23] It was conducted using the most comprehensive set of credit characteristics ever assembled for a study on mortgage discrimination.[24] The study provided persuasive evidence that lenders in the Boston area discriminated against minorities in 1990.[25]
- Using the Federal Reserve Board's 1983 Survey of Consumer Finances and the 1980 Census of Population and Housing data, analyses revealed that minority households were one-third as likely to receive conventional loans as non-Hispanic white households after taking into account financial and demographic variables.[26]
- Results of a Midwest study indicate a relationship between race and both the number and size of mortgage loans. Data matched on socioeconomic characteristics revealed that African American borrowers across 13 census tracts received significantly fewer loans and of smaller sizes compared to their white counterparts.[27]

However, other studies have found that differences in preferences for Federal Housing Administration (FHA) loans — mortgage loans that that the government insures — versus conventional loans among racial and ethnic groups may partially explain disparities found in conventional loan approvals between minorities and non-minorities.[28] Several studies have found that, historically, minority borrowers are far more likely to seek FHA loans than comparable non-Hispanic white borrowers across different income and wealth levels. The insurance on FHA loans protects the lender, but the borrower can be disadvantaged by higher borrowing costs.[29, 30]

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[23] Munnell, Alicia H., Geoffrey Tootell, Lynn Browne and James McEneaney. 1996. "Mortgage Lending in Boston: Interpreting HMDA Data." *The American Economic Review*. 86: 25-53.

[24] Ladd, Helen F. 1998. "Evidence on Discrimination in Mortgage Lending." *The Journal of Economic Perspectives*. 12:41-62.

[25] Yinger, John. 1995. Closed Doors, Opportunities Lost: The Continuing Costs of Housing Discrimination. New York: Russell Sage Foundation, 71.

[26] Canner, Glenn B., Stuart A. Gabriel and J. Michael Woolley. 1991. "Race, Default Risk and Mortgage Lending: A Study of the FHA and Conventional Loan Markets." *Southern Economic Journal*. 58:249-262.

[27] Leahy, Peter J. 1985. "Are Racial Factors Important for the Allocation of Mortgage Money?: A Quasi-Experimental Approach to an Aspect of Discrimination." *American Journal of Economics and Sociology*. 44:185-196.

[28] Canner. 1991. "Race, Default Risk and Mortgage Lending: A Study of the FHA and Conventional Loan Markets."

[29] Yinger. 1995. Closed Doors, Opportunities Lost: The Continuing Costs of Housing Discrimination. 80.

[30] See definition of subprime loans discussed on the following page.

Subprime lending. Loan denial is only one of several ways minorities might be discriminated against in the home mortgage market. Mortgage lending discrimination can also occur through higher fees and interest rates. Subprime lending provides a unique example of such types of discrimination through fees associated with various loan types.

Until recent years, one of the fastest growing segments of the home mortgage industry was subprime lending. From 1994 through 2003, subprime mortgage activity grew by 25 percent per year and accounted for $330 billion of U.S. mortgages in 2003, up from $35 billion a decade earlier. In 2006, subprime loans represented about one-fifth of all mortgages in the United States.[31] With higher interest rates than prime loans, subprime loans were historically marketed to customers with blemished or limited credit histories who would not typically qualify for prime loans. Over time, subprime loans also became available to homeowners who did not want to make a down payment, did not want to provide proof of income and assets, or wanted to purchase a home with a cost above that for which they would qualify from a prime lender.[32] Because of higher interest rates and additional costs, subprime loans affected homeowners' ability to grow home equity and increased their risks of foreclosure.

Although there is no standard definition of a subprime loan, there are several commonly-used approaches to examining rates of subprime lending. The study team used a "rate-spread method" — in which subprime loans are identified as those loans with substantially above-average interest rates — to measure rates of subprime lending in 2006, 2009, and 2011.[33] Because lending patterns and borrower motivations differ depending on the type of loan being sought, the study team separately considered home purchase loans and refinance loans. Patterns in subprime lending did not differ substantially between the different types of loans.

Figure G-4 presents the percentage of conventional home purchase loans that were subprime in Nevada and the United States based on 2006, 2009, and 2011 HMDA data. As shown, the percentage of conventional home purchase loans that were subprime substantially declined with the collapse of the mortgage lending market in the late 2000s.

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[31] Avery, Brevoort, and Canner, "The 2006 HMDA Data." Federal Reserve Bulletin, December 2007, pp. A73-A109.

[32] Gerardi, Shapiro, and P. Willen. 2008. "Subprime Outcomes: Risky Mortgages, Homeownership Experiences, and Foreclosure. *Federal Reserve Bank of Boston*.

[33] Prior to October 2009, first lien loans were identified as subprime if they had an annual percentage rate (APR) that was 3.0 percentage points or greater than the federal treasury security rate of like maturity. As of October 2009, rate spreads in HMDA data were calculated as the difference between APR and Average Prime Offer Rate, with subprime loans defined as 1.5 percentage points of rate spread or more. The study team identified subprime loans according to those measures in the corresponding time periods.

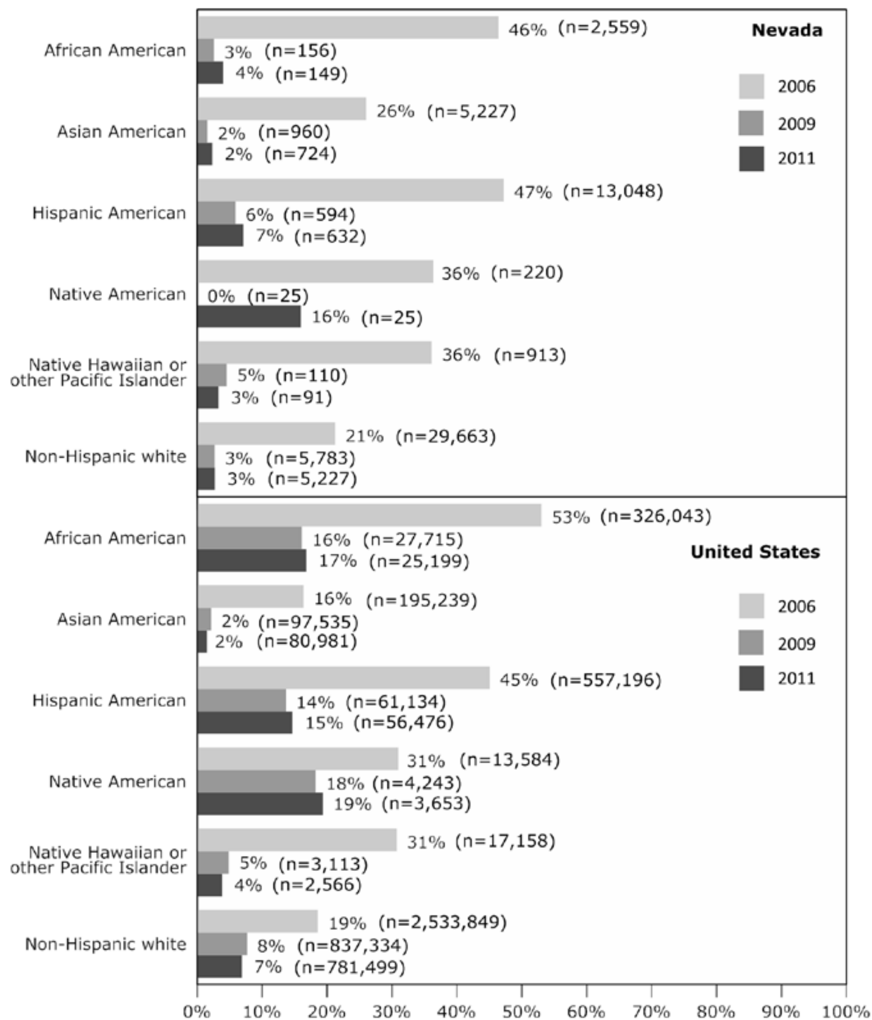
Figure G-4.
Percent of conventional home purchase loans that were subprime, 2006, 2009, and 2011

Note:

Subprime rates are calculated as the percentage of originated loans that were subprime.

Source:

FFIEC HMDA data 2006, 2009 and 2011.



In Nevada in 2006, subprime loans accounted for a large portion of conventional home mortgages for African American, Hispanic American, Native American, and Native Hawaiian and other Pacific Islander borrowers:

- 47 percent of home purchase loans that were issued to Hispanic Americans were subprime, more than double the percentage for non-Hispanic whites in Nevada (21%).
- Similarly, 46 percent of home purchase loans issued to African Americans were subprime.
- Thirty-six percent of home purchase loans issued to Native Americans and to Native Hawaiians were subprime.
- The proportion of home purchase loans that were subprime was also higher for Asian Americans (26%) than for non-Hispanic whites in 2006.

By 2011, subprime loans as a percentage of all conventional home purchase loans issued that year in Nevada dropped below 10 percent for each racial/ethnic group. Subprime loans still accounted for a larger share of conventional home purchase loans for Hispanic Americans than for non-Hispanic whites (7% compared with 3%).

Figure G-5 presents similar information for home refinance loans in Nevada and the United States. As with home purchase loans, the percentage of loans that were subprime fell substantially for all race/ethnic groups after 2006.

There were large disparities in the percentage of conventional refinance loans that were subprime for each minority group in 2006. For example, subprime loans accounted for more than 40 percent of the refinance loans received by African Americans, Hispanic Americans and Native Hawaiians/Other Pacific Islanders in Nevada. Subprime loans were 27 percent of the conventional refinance loans received by non-Hispanic whites in that year.

In 2009 and 2011, very few of the conventional refinance mortgages were subprime in Nevada (true for each group).

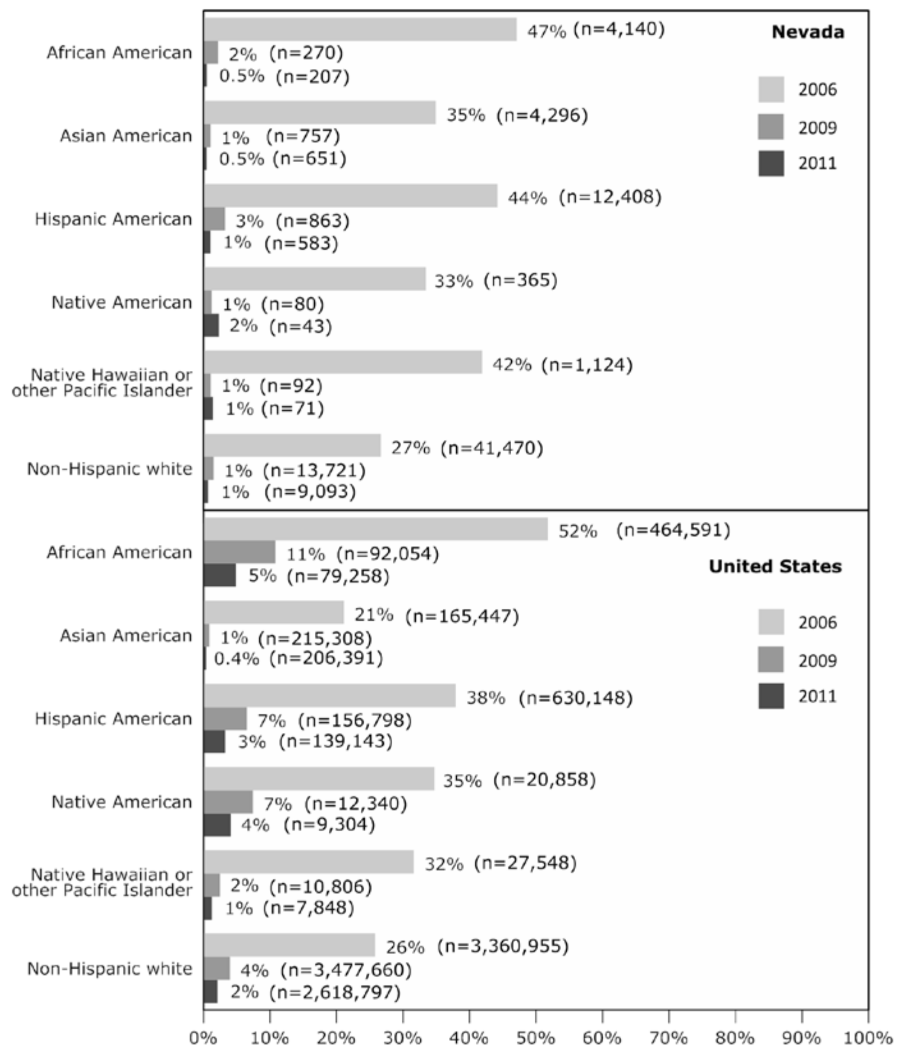
Figure G-5.
Percent of conventional refinance loans that were subprime, 2006, 2009, and 2011

Note:

Subprime rates are calculated as the percentage of originated loans that were subprime.

Source:

FFIEC HMDA data 2006, 2009 and 2011.



Additional research. Some evidence suggests that lenders sought out and offered subprime loans to individuals who often would not be able to pay off the loan, a form of "predatory lending."[34] Furthermore, some research has found that many recipients of subprime loans could have qualified for prime loans.[35] Previous studies of subprime lending suggest that predatory lenders have disproportionately targeted minorities. A 2001 HUD study using 1998 HMDA data found that subprime loans were disproportionately concentrated in African American neighborhoods compared with white neighborhoods, even after controlling for income.[36] For example, borrowers in higher-income African American neighborhoods were six times more likely to refinance with subprime loans than borrowers in higher-income white neighborhoods.

Implications of the recent mortgage lending crisis. The turmoil in the housing market since late 2006 has been far-reaching, resulting in the loss of home equity, decreased demand for housing, and increased rates of foreclosure.[37] Much of the blame has been placed on risky practices in the mortgage industry including substantial increases in subprime lending. As discussed above, the number of subprime mortgages increased at an extraordinary rate between the mid-1990s and mid-2000s. Those high-cost, high-interest loans increased from 8 percent of originations in 2003 to 20 percent in 2005 and 2006.[38] The preponderance of subprime lending is important because households that are repaying subprime loans have a greater likelihood of delinquency or foreclosure. A 2008 study released from the Federal Reserve Bank of Boston found that, "homeownerships that begin with a subprime purchase mortgage end up in foreclosure almost 20 percent of the time, or more than six times as often as experiences that begin with prime purchase mortgages."[39]

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[34] Department of Housing and Urban Development (HUD) and the Department of Treasury. 2001. HUD-Treasury National Predatory Lending Task Force Report. *HUD*; Carr, J. and L. Kolluri. 2001. Predatory Lending: An Overview. *Fannie Mae Foundation*; and California Reinvestment Coalition, Community Reinvestment Association of North Carolina, Empire Justice Center, Massachusetts Affordable Housing Alliance, Neighborhood Economic Development Advocacy Project, Ohio Fair Lending Coalition and Woodstock Institute, 2008. "Paying More for the American Dream."

[35] Freddie Mac. 1996, September. "Automated Underwriting: Making Mortgage Lending Simpler and Fairer for America's Families." *Freddie Mac.* (accessed February 5, 2007); and Lanzerotti. 2006. "Homeownership at High Cost: Foreclosure Risk and High Cost Loans in California." *Federal Reserve Bank of San Francisco.*

[36] Department of Housing and Urban Development (HUD) and the Department of Treasury. 2001.

[37] Joint Center for Housing Studies of Harvard University. 2008. "The State of the Nation's Housing."

[38] Ibid.

[39] Gerardi, Shapiro, and P. Willen. 2008. "Subprime Outcomes: Risky Mortgages, Homeownership Experiences, and Foreclosure. *Federal Reserve Bank of Boston.*

Such problems substantially impact the ability of homeowners to secure capital through home mortgages to start or expand small businesses. That issue has been highlighted in statements made by members of the Board of Governors of the Federal Reserve System to the U.S. Senate and U.S. House of Representatives:

- On April 16, 2008, Frederic Mishkin informed the U.S. Senate Committee on Small Business and Entrepreneurship that "one of the most important concerns about the future prospects for small business access to credit is that many small businesses use real estate assets to secure their loans. Looking forward, continuing declines in the value of their real estate assets clearly have the potential to substantially affect the ability of those small businesses to borrow. Indeed, anecdotal stories to this effect have already appeared in the press."[40]
- On November 20, 2008, Randall Kroszner told the U.S. House of Representatives Committee on Small Business that "small business and household finances are, in practice, very closely intertwined. [T]he most recent Survey of Small Business Finances (SSBF) indicated that about 15 percent of the total value of small business loans in 2003 was collateralized by 'personal' real estate. Because the condition of household balance sheets can be relevant to the ability of some small businesses to obtain credit, the fact that declining house prices have weakened household balance-sheet positions suggests that the housing market crisis has likely had an adverse impact on the volume and price of credit that small businesses are able to raise over and above the effects of the broader credit market turmoil."[41]

Federal Reserve Chairman Ben Bernanke recognized the reality of those concerns in a speech titled "Restoring the Flow of Credit to Small Businesses" on July 12, 2010.[42] Bernanke indicated that small businesses have had difficulty accessing credit and pointed to the declining value of real estate as one of the primary obstacles.

Furthermore, the National Federation of Independent Business (NFIB) conducted a national survey of 751 small businesses in late-2009 to investigate how the recession impacted access to capital.[43, 44] NFIB concluded that "falling real estate values (residential and commercial) severely limit small business owner capacity to borrow and strains currently outstanding credit relationships." Survey results indicated that 95 percent of small business employers owned real estate and 13 percent held "upside-down" property — that is, property for which the mortgage is worth more than its appraised value.

Another study analyzed the Survey of Consumer Finances to explore racial/ethnic disparities in wealth and how those disparities were impacted by the recession.[45] The study showed that there are substantial wealth disparities between African Americans and whites as well as Hispanics and whites

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[40] Mishkin, Frederic. 2008. "Statement of Frederic S. Mishkin, Member, Board of Governors of the Federal Reserve System before the Committee on Small Business and Entrepreneurship, U.S. Senate on April 16."

[41] Kroszner, Randall. 2008. "Effects of the financial crisis on small business." Testimony before the Committee on Small Business, U.S. House of Representative on November 20.

[42] Bernanke, Ben. 2010. Restoring the Flow of Credit to Small Businesses. Presented at the Federal Reserve Meeting Series: Addressing the Financing Needs of Small Businesses on July 12.

[43] The study defined a small business as a business employing no less than one individual in addition to the owner(s) and no more than 250 individuals.

[44] National Federation of Independent Business (NFIB). 2010. Small Business Credit in a Deep Recession.

[45] McKernan, Signe-Mary, Caroline Ratcliffe, Eugene Steverle and Sisi Zhang. 2013. "Less Than Equal: Racial Disparities in Wealth Accumulation." Urban Institute.

and that those wealth disparities worsened between 1983 and 2010. In addition to growing over time, the wealth disparity also grows with age — whites are on a higher accumulation curve than blacks or Hispanics. The study also reports that the 2007-2009 recession exacerbated wealth disparities, particularly for Hispanics.

Opportunities to obtain business capital through home mortgages appear to be limited especially for homeowners with little home equity. Furthermore, the increasing rates of default and foreclosure, especially for homeowners with subprime loans, reflect shrinking access to capital available through such loans. Those consequences are likely to have a disproportionate impact on minorities in terms of both homeownership and the ability to secure capital for business start-up and growth.

Redlining. Redlining refers to mortgage lending discrimination against geographic areas associated with high lender risk. Those areas are often racially determined, such as African American or mixed-race neighborhoods.[46] That practice can perpetuate problems in already poor neighborhoods.[47] Most quantitative studies have failed to find strong evidence in support of geographic dimensions of lender decisions. Studies in Columbus, Ohio; Boston, Massachusetts; and Houston, Texas found that racial differences in loan denial had little to do with the racial composition of a neighborhood but rather with the individual characteristics of the borrower.[48] Some studies found that the race of an applicant — but not the racial makeup of the neighborhood — to be a factor in loan denials.

Studies of redlining have primarily focused on the geographic aspect of lender decisions. However, redlining can also include the practice of restricting credit flows to minority neighborhoods through procedures that are not observable in actual loan decisions. Examples include branch placement, advertising, and other pre-application procedures.[49] Such practices can deter minorities from starting businesses. Locations of financial institutions are important to small business start-up, because local banking sectors often finance local businesses.[50] Redlining practices would deny that resource to minorities.

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[46] Holloway, Steven R. 1998. "Exploring the Neighborhood Contingency of Race Discrimination in Mortgage Lending in Columbus, Ohio." *Annals of the Association of American Geographers*. 88:252-276.

[47] Ladd, Helen F. 1998. "Evidence on Discrimination in Mortgage Lending." *The Journal of Economic Perspectives*. 12:41-62.

[48] See Holloway. 1998. "Exploring the Neighborhood Contingency of Race Discrimination in Mortgage Lending in Columbus, Ohio."; Tootell. 1996. "Redlining in Boston: Do Mortgage Lenders Discriminate Against Neighborhoods?"; and Holmes, Andrew and Paul Horvitz. 1994. "Mortgage Redlining: Race, Risk, and Demand." *The Journal of Finance*. 49:81-99.

[49] Yinger, John. 1995. "Closed Doors, Opportunities Lost: The Continuing Costs of Housing Discrimination." Russell Sage Foundation. New York. 78-79.

[50] Holloway. 1998. "Exploring the Neighborhood Contingency of Race Discrimination in Mortgage Lending in Columbus, Ohio."

Steering by real estate agents. Historically, differences in the types of loans that are issued to minorities have also been attributed to "steering" by real estate agents, who serve as an information filter.[51] Despite the fact that steering has been prohibited by law for many decades, some studies claim that real estate brokers provide different levels of assistance and different information on loans to minorities than they do to non-minorities.[52] Such steering can affect the perception of minority borrowers about the availability of mortgage loans.

Gender discrimination in mortgage lending. Relatively little information is available on gender-based discrimination in mortgage lending markets. Historically, lending practices overtly discriminated against women by requiring information on marital and childbearing status. Perceived risks associated with granting loans to women of childbearing age and unmarried women resulted in "income discounting," limiting the availability of loans to women.[53]

The Equal Credit Opportunity Act in 1973 suspended such discriminatory lending practices. However, certain barriers affecting women have persisted after 1973 in mortgage lending markets. For example, there is some past evidence that lenders under-appraised properties for female borrowers.[54]

Access to Business Capital

Barriers to accessing capital can have substantial impacts on small business formation and expansion. In-depth interviews with business owners and managers in Nevada indicated a strong link between capital and the ability to start and develop a business. In addition, several studies have found evidence that start-up capital is important for business profits, longevity, and other outcomes.

- The amount of start-up capital is associated with small business sales and other outcomes;[55]
- Limited access to capital has affected the size of African American-owned businesses;[56, 57] and
- Weak financial capital was identified as a reason that more African American-owned businesses than non-Hispanic white-owned businesses closed over a four-year period.[58]

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[51] Kantor, Amy C. and John D. Nystuen. 1982. "De Facto Redlining a Geographic View." *Economic Geography.* 4:309-328.

[52] Yinger. 1995. Closed Doors, Opportunities Lost: The Continuing Costs of Housing Discrimination. 78–79.

[53] Card. 1980. "Women, Housing Access, and Mortgage Credit."

[54] Ladd, Helen F. 1982. "Equal Credit Opportunity: Women and Mortgage Credit." *The American Economic Review.* 72:166-170.

[55] See Fairlie, Robert W. and Harry A. Krashinsky. 2006. "Liquidity Constraints, Household Wealth, and Entrepreneurship Revisited"; and Grown. 1991. "Commercial Bank Lending Practices and the Development of Black-Owned Construction Companies."

[56] Grown, C. and Bates, T. 1992. "Commercial Bank Lending Practices and the Development of Black-Owned Construction Companies." Journal of Urban Affairs, 14: 25–41.

[57] Fairlie, Robert W. and Alicia M. Robb. 2010. *Race and Entrepreneurial Success.* Cambridge: MIT Press.

[58] Grown, C. and Bates, T. 1992. "Commercial Bank Lending Practices and the Development of Black-Owned Construction Companies." Journal of Urban Affairs, 14: 25–41.

Bank loans are one of the largest sources of debt capital for small businesses.[59] Discrimination in the application and approval processes of those loans and other credit resources could be detrimental to the success of minority- and women-owned businesses. Previous studies have addressed racial/ethnic and gender discrimination in capital markets by evaluating:

- Loan denial rates;
- Loan values;
- Interest rates;
- Business owners' fears that loan applications will be rejected;
- Sources of capital; and
- Relationships between start-up capital and business survival.

To examine the role of race/ethnicity and gender in capital markets, the study team analyzed data from the Federal Reserve Board's 2003 SSBF — the most comprehensive national source of credit characteristics of small businesses (those with fewer than 500 employees). The survey contains information on loan denial and interest rates as well as anecdotal information from businesses. The sample from 2003 contains records for 4,240 businesses. The study team applied sample weights to provide representative estimates of loan denial and interest rates.

The SSBF records the geographic location of businesses by Census Division, not by city, county, or state. The Mountain Census Division (referred to throughout this report as the Mountain region) includes Nevada, Arizona, Colorado, Idaho, Montana, New Mexico, Utah and Wyoming. The Mountain region is the level of geographic detail of SSBF data most specific to Nevada, and 2003 is the most recent information available from the SSBF because the survey was discontinued after that year.

Loan denial rates. Figure G-6 presents loan denial rates from the 2003 SSBF for the Mountain region and for the United States.[60] National SSBF data for 2003 reveal that the loan denial rate for African American-owned businesses (51%) in the United States was substantially higher than for non-Hispanic white male-owned businesses. Denial rates appear higher for other minority groups and non-Hispanic white females but those differences were not statistically significant.

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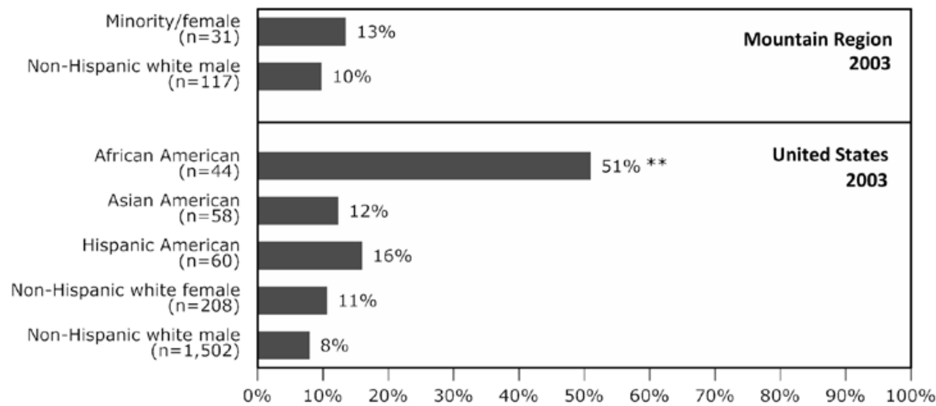
[59] Data from the 1998 SSBF indicate that 70 percent of loans to small business are from commercial banks. That result is present across all gender and racial/ethnic groups with the exception of African Americans, whose rate of lending from commercial banks is even greater than other minorities. See Blanchard, Lloyd, Bo Zhao and John Yinger. 2005. "Do Credit Market Barriers Exist for Minority and Woman Entrepreneurs." *Center for Policy Research, Syracuse University.*

[60] The denial rates represent the proportion of business owners whose loan applications over the previous three years were always denied, compared to business owners whose loan applications were always approved or sometimes approved.

As shown in Figure G-6, about 13 percent of minority- and women-owned businesses in the Mountain region reported being denied loans in 2003, a larger percentage than the 10 percent of non-Hispanic white male-owned businesses that reported being denied loans. (Loan denial statistics on individual minority groups in the Mountain region are not reported in Figure G-6 due to relatively small sample sizes.)

Figure G-6.
Business loan denial rates, 2003



Note: *, ** Denote that the difference in proportions from non-Hispanic white male-owned businesses is statistically significant at the 90% or 95% confidence level, respectively.

Source: BBC Research & Consulting from 2003 Survey of Small Business Finances.

Other researchers' regression analyses of loan denial rates. Several studies have investigated whether disparities in loan denial rates for different racial/ethnic and gender groups exist after controlling for other factors that affect loan approvals. Findings from those studies include the following:

- Commercial banks are less likely to loan to African American-owned businesses than to non-Hispanic white-owned businesses after statistically controlling for other factors.[61]
- African American, Hispanic American, and Asian American men are more likely to be denied loans than non-Hispanic white men. However, African American borrowers are more likely to apply for loans.[62]
- Disparities in loan denial rates between African American-owned and non-Hispanic white-owned businesses tend to decrease with increasing competitiveness of lender markets. A similar phenomenon is observed when considering differences in loan denial rates between male- and female-owned businesses.[63]
- The probability of loan denial decreases with greater personal wealth. However, accounting for personal wealth does not account for the large differences in denial rates across African American-, Hispanic American-, Asian American-, and non-Hispanic white-owned businesses.

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[61] Cavalluzzo, Ken, Linda Cavalluzzo and John Wolken. 2002. "Competition, Small Business Financing and Discrimination: Evidence from a New Survey." *Journal of Business.* 75: 641-679.

[62] Coleman, Susan. 2002. "Characteristics and Borrowing Behavior of Small, Women-owned Firms: Evidence from the 1998 National Survey of Small Business Finances." *The Journal of Business and Entrepreneurship.* 151-166.

[63] Cavalluzzo, 2002. "Competition, Small Business Financing and Discrimination: Evidence from a New Survey."

Specifically, information about personal wealth explained some differences between Hispanic- and Asian American-owned businesses and non-Hispanic white-owned businesses, but they explained almost none of the differences between African American-owned businesses and non-Hispanic white-owned businesses.[64]

- Loan denial rates are higher for African American-owned businesses than for non-Hispanic white-owned businesses after accounting for several factors such as creditworthiness and other characteristics. That result is largely insensitive to different model specifications. Consistent evidence on loan denial rates and other indicators of discrimination in credit markets was not found for other minorities or for women.[65]
- Women-owned businesses are no less likely to apply or to be approved for loans in comparison to male-owned businesses.[66]
- A recent study using Kauffman Firm Survey data found that black/Hispanic-owned firms had a lower probability of loan approval than non-Hispanic white owned firms in 2007, 2008, 2009 and 2010 even after accounting for firm and owner characteristics. In 2010, Asian-owned firms were also less likely to be approved. Women-owned firms had a lower likelihood of loan approval than male-owned firms, but only for 2008.[67]

Study team regression model for denial rates in the SSBF. Keen Independent and BBC conducted an analysis of the 2003 SSBF by developing a model to explore the relationships between loan denial and the race/ethnicity and gender of business owners while statistically controlling for other factors. As discussed above, there is extensive literature on business loan denials that provides the theoretical basis for the regression models. Many studies have used probit econometric models to investigate the effects of various owner, business, and loan characteristics on the likelihood of loan denial. The standard model includes three general categories of variables that the study team used:

- Owners' demographic characteristics (including race and gender), credit, and resources (14 variables);
- Business characteristics and credit and financial health (29 variables); and
- The environment in which businesses and lenders operate and characteristics of the loans (19 variables).[68]

After excluding a small number of observations where the loan outcome was imputed, the 2003 national sample included 1,897 businesses that had applied for a loan during the three years preceding the 2003 SSBF and the Mountain region included 149 such businesses.

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[64] Cavalluzzo, Ken and John Wolken. 2002. "Small Business Turndowns, Personal Wealth and Discrimination." *FEDS Working Paper No. 2002-35.*

[65] Blanchflower, David G., Phillip B. Levine and David J. Zimmerman. 2003. "Discrimination in the Small Business Credit Market." *The Review of Economics and Statistics.* 85:930-943.

[66] Coleman. 2002. "Characteristics and Borrowing Behavior of Small, Women-owned Firms: Evidence from the 1998 National Survey of Small Business Finances."

[67] Robb, Alicia. 2012. "Access to Capital among Young firms, Minority-owned Firms, Women-owned Firms, and High-tech Firms." U.S. Small Business Administration.

[68] See, for example, Blanchard, Lloyd; Zao, Bo and John Yinger. 2005. "Do Credit Barriers Exist for Minority and Women Entrepreneurs*?" Center for Policy Research, Syracuse University.*

Given the relatively small sample size for the Mountain region and the large number of variables in the model, the study team included all U.S. businesses in the model and estimated any Mountain region effects by including regional control variables — an approach commonly used in other studies that analyze SSBF data.[69] The regional variables include an indicator variable for businesses located in the Mountain region and interaction variables that represent businesses owned by minorities or women that are located in the Mountain region.[70]

Figure G-7 presents the marginal effects from the probit model predicting loan denials. The dependent variable represented whether a company's loan applications over the past three years were always denied. The results from the model indicate that a number of race- and gender-neutral factors significantly affect the probability of loan denial. Those effects include the following:

- Owner experience is associated with a higher likelihood of loan denial;
- Having an advanced degree is associated with a lower probability of loan denial;
- Being a business owner who filed for bankruptcy in the past seven years is associated with a higher likelihood of loan denial;
- Being a business with a high-risk credit score is associated with a higher probability of loan denial;
- Being an inherited businesses or older businesses is associated with a lower likelihood of loan denial;
- Having an existing line of credit, checking account, or savings account is associated with a lower likelihood of loan denial;
- Having existing vehicle loans or other loans (excluding mortgage, equipment and stockholder loans) is associated with a higher likelihood of loan denial;
- Being an S or C corporation is associated with a higher probability of being denied loans;
- Being in the transportation, communications and utilities industry is associated with a higher likelihood of being denied loans;
- Location in metropolitan areas is associated with a higher probability of loan denial; and
- Applying for business mortgages, vehicle loans, and loans for "other" purposes is associated with a lower likelihood of loan denial.

After statistically controlling for race- and gender-neutral influences, the study team observed that businesses owned by African Americans were more likely to have their loans denied than other businesses. The indicator variable for the Mountain region and the interaction terms for Mountain region and status as a minority- or female-owned business were not statistically significant. That result indicates that the probability of loan denials for minority- and women-owned businesses within

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[69] Blanchflower, David G.; Levine, Phillip B. and David J. Zimmerman. 2003. "Discrimination in the Small-Business Credit Market." *The Review of Economics and Statistics*. 85(4): 930-943; NERA Economic Consulting. 2008. "Race, Sex, and Business Enterprise: Evidence from the City of Austin." *Prepared for the City of Austin, Texas*; and CRA International. 2007. "Measuring Minority- and Woman-Owned Construction and Professional Service Firm Availability and Utilization. *Prepared for Santa Clara Valley Transportation Authority.*

[70] The study team also considered an interaction variable to represent firms that are both minority and female but the term was not significant.

the Mountain region is not significantly different from the U.S. as a whole after accounting for other factors.

Figure G-7.
Likelihood of business loan denial (probit regression) in the U.S. in the 2003 SSBF,
Dependent variable: loan denial

Variable	Marginal Effect	
Race/ethnicity and gender		
African American	0.180	**
Asian American	-0.012	
Hispanic American	-0.012	
Native American	0.020	
Other minority	0.035	
Female	0.008	
Mountain region	-0.013	
Minority in Mountain region	0.076	
Female in Mountain region	0.007	
Owner's characteristics, credit and resources		
Age	-0.001	
Owner experience	0.002	**
Some college	-0.011	
Four-year degree	-0.005	
Advanced degree	-0.027	*
Log of Home Equity	0.001	
Bankruptcy in past 7 years	0.107	*
Judgement against in past 3 years	0.016	
Log of net worth excluding home	0.001	

Variable	Marginal Effect	
Firm's characteristics, credit and financial health		
D&B credit score = moderate risk	-0.012	
D&B credit score = average risk	0.027	
D&B credit score = significant risk	0.010	
D&B credit score = high risk	0.047	*
Total employees	0.000	
Percent of business owned by principal	0.000	
Family-owned business	-0.024	
Firm purchased	0.002	
Firm inherited	-0.038	**
Firm age	-0.001	**
Firm has checking account	-0.150	*
Firm has savings account	-0.021	*
Firm has line of credit	-0.094	**
Existing capital leases	-0.004	
Existing mortgage for business	0.016	
Existing vehicle loans	0.021	*
Existing equipment loans	-0.011	
Existing loans from stockholders	0.022	
Other existing loans	0.033	**
Firm used trade credit in past year	-0.001	
Log of total sales in prior year	-0.011	
Log of cost of doing business in prior year	-0.005	
Log of total assets	0.002	
Log of total equity	-0.001	
Negative total equity	0.002	
Firm bankruptcy in past 7 years	-0.026	
Firm delinquency in business transactions	0.015	

Variable	Marginal Effect	
Firm and lender environment and loan characteristics		
Partnership	-0.007	
S corporation	0.028	*
C corporation	0.040	*
Construction industry	0.031	
Manufacturing industry	0.018	
Transportation, communications and utilities industry	0.203	**
Finance, insurance and real estate industries	0.013	
Engineering industry	0.001	
Other industry	0.005	
Herfindahl index = .10 to .18	0.006	
Herfindahl index = .18 or above	0.034	
Located in MSA	0.025	**
Sales market local only	0.015	
Loan amount	0.000	
Capital lease application	-0.015	
Business mortgage application	-0.035	**
Vehicle loan application	-0.055	**
Equipment loan application	-0.022	
Loan for other purposes	-0.027	**

Note: * Statistically significant at 90% confidence level.
** Statistically significant at 95% confidence level.

For ease of interpretation the marginal effects of the probit coefficients are displayed in the figure. Significance is calculated using t-statistics from the probit coefficients associated with the marginal effects.

"Less than high school education," "Negative sales in prior year" and "Mining industry" perfectly predicted loan outcome and dropped out of the regression; "Owner has negative net worth" and "Negative total assets" dropped because of collinearity.

Source: BBC Research & Consulting analysis of 2003 SSBF data.

The study team simulated loan approval rates for African American-owned businesses by comparing observed approval rates with simulated approval rates. "Loan approval" means that a business owner always, or at least sometimes, had his or her business loan applications approved over the previous three years. "Rates" of loan approval means the percentage of businesses that received loan approvals (always or sometimes) during that time period. Approval rates were calculated by subtracting the denial rate from 100 (e.g., a denial rate of 46.4% would indicate an approval rate of 53.6%).

The probit modeling approach allowed for simulations of loan approval rates for African American-owned businesses as if they had the same probability of loan approval as similarly situated non-Hispanic white male-owned businesses. To conduct the simulation, the study team took the following steps:

- The study team performed a probit regression analysis predicting loan approval using only non-Hispanic white male-owned businesses in the dataset.[71]
- The study team then used the coefficients from that model and the mean characteristics of African American-owned businesses (including the effects of a business being in the Mountain region) to estimate the probability of loan approval of that group.

The results of those simulations yield estimates of loan approval rates for non-Hispanic white-owned businesses who shared the same characteristics of African American-owned businesses.

Based on 2003 SSBF data, the actual loan approval rate for African American-owned businesses was 49 percent. Model results showed that African American-owned businesses would have an approval rate of about 69 percent if they were approved for loans at the same rate as similarly-situated non-Hispanic white male-owned businesses (disparity index of 72). The index of 72 suggests a substantial disparity between the actual loan approval rate and the rate for African American-owned businesses that might be expected for similarly-situated non-Hispanic white male-owned businesses. Figure G-8 presents these results.

Figure G-8.
Comparison of actual loan approval rates to simulated loan approval rates, 2003

	Loan approval rates		Disparity index
Group	Actual	Benchmark	(100 = parity)
African American	49.1%	68.5%	72

Note: Actual approval rates presented here may differ from denial rates in Figure G-6 because some observations were excluded from the probit regression.

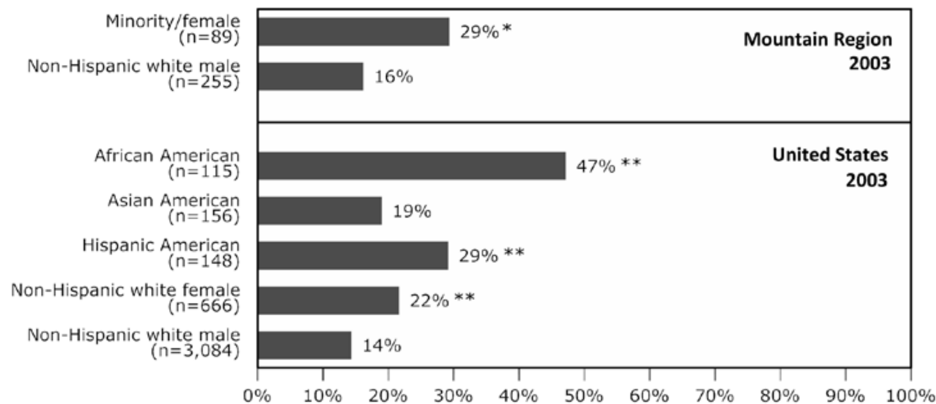
"Loan approval" means that a business owner always or at least sometimes had his or her business loan applications approved over the previous three years.

Source: BBC Research & Consulting analysis of 2003 SSBF data.

[71] That version of the model excluded the race/ethnicity and gender indicator variables, because the value of all of those variables would be the same (i.e., 0).

Applying for loans. Fear of loan denial can be a barrier to business credit in the same way that actual loan denial presents a barrier. The SSBF includes a question that gauges whether a business owner did not apply for a loan due to fear of loan denial. Using data from the 2003 SSBF, Figure G-9 presents the percentage of businesses that reported needing credit but did not apply for loans because of fears of denial.

Figure G-9.
Businesses that needed loans but did not apply due to fear of denial, 2003



Note: *, ** Denote that the difference in proportions from non-Hispanic white male-owned businesses is statistically significant at the 90% or 95% confidence level, respectively.

Source: BBC Research & Consulting from 2003 Survey of Small Business Finances.

African American- and Hispanic American-owned businesses were more likely than non-Hispanic white male-owned businesses in the nation to forgo applying for loans due to a fear of denial. Non-Hispanic white women-owned businesses were also more likely to forgo applying for loans due to a fear of denial. In the Mountain region, fear of denial was greater for minority- and women-owned businesses than for non-Hispanic white male-owned businesses.

Other researchers' regression analyses of fear of denial. Other studies have identified factors that influence the decision to apply for a loan, such as business size, business age, owner age, and educational attainment. Accounting for those factors can help in determining whether race/ethnicity or gender of business owners explains whether owners did not apply for a loan due to fear of loan denial. Results indicate that:

- African American and Hispanic American business owners are significantly less likely to apply for loans due to fear of denial.[72]
- After statistically controlling for educational attainment, there were no differences in loan application rates between non-Hispanic white, African American, Hispanic American, and Asian American male business owners.[73]
- African American-owned businesses were more likely than other businesses to report being seriously concerned with credit markets and were less likely to apply for credit in fear of loan denial.[74]
- A Small Business Administration study found that black/Hispanic-owned firms were less likely to apply for credit when needed for fear of having the loan application denied than non-Hispanic white-owned firms in 2007, 2008, 2009 and 2010 after accounting for firm and owner characteristics. Women-owned firms were less likely than male-owned firms to apply for loans for fear of denial in 2008, 2009 and 2010.[75]

Study team regression model for fear of denial in the SSBF. The Keen Independent study team conducted its own econometric analysis of fear of denial by developing a model to explore the relationships between fear of denial and the race/ethnicity and gender of businesses owners while statistically controlling for other factors. The model was similar to the probit regression for likelihood of denial except that the fear of denial model included business owners who did not apply for a loan and excluded loan characteristics.

After excluding a small number of observations where fear of denial was imputed, the 2003 national sample included 4,231 businesses (343 of which were in the Mountain region). Similar to the likelihood of denial model, Mountain region effects are modeled using regional control variables in the national model.[76]

Figure G-10 presents the marginal effects from the probit model predicting the likelihood that a business needs credit but will not apply for a loan due to fear of denial. The results from the model indicate that a number of race- and gender-neutral factors significantly affect the probability of forgoing application for a loan due to fear of denial. Factors that are associated with a *greater* likelihood of not applying for a loan due to fear of loan denial include:

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[72] Cavalluzzo, 2002. "Competition, Small Business Financing and Discrimination: Evidence from a New Survey."

[73] Coleman, Susan. 2004. "Access to Debt Capital for Small Women- and Minority-Owned Firms: Does Educational Attainment Have an Impact?" *Journal of Developmental Entrepreneurship*. 9:127-144.

[74] Blanchflower et al., 2003. Discrimination in the Small Business Credit Market.

[75] Robb, Alicia. 2012. "Access to Capital among Young firms, Minority-owned Firms, Women-owned Firms, and High-tech Firms." U.S. Small Business Administration.

[76] Again, the study team considered an interaction variable to represent firms that are both minority and female but the term was not significant.

- The business owner or business filing for bankruptcy in the past seven years or having had a judgment against the business;
- The business having a high risk credit score;
- A larger percentage of business owned by the principal owner;
- The business having an existing mortgage, existing vehicle or equipment loans, existing loans from stockholders or other existing loans;
- Higher cost of doing business in the prior year;
- Having been delinquent in business transactions; and
- Location in a metropolitan area.

Factors that are associated with a *lower* likelihood of not applying for a loan due to fear of loan denial include:

- The business owner being older and having a four-year college degree;
- More equity in the business owner's home — if he or she is a homeowner — and more business owner net worth;
- Being an older business;
- More sales in the prior year (but also negative sales in the prior year); and
- Having a local (as opposed to regional, national or international) sales market.

After statistically controlling for race- and gender-neutral influences, the study team observed that African American-, Hispanic American- and female-owned businesses were more likely to forgo applying for a loan due to fear of denial. Results for minority- and women-owned businesses within the Mountain region were not significantly different from the U.S. as a whole after accounting for other factors.

Figure G-10.
Likelihood of forgoing a loan application due to fear of denial (probit regression) in the U.S. in the 2003 SSBF,
Dependent variable: needed a loan but did not apply due to fear of denial

Variable	Marginal Effect	
Race/ethnicity and gender		
African American	0.190	**
Asian American	0.058	
Hispanic American	0.066	*
Native American	0.019	
Other minority	0.142	
Female	0.031	*
Mountain region	0.019	
Minority in Mountain region	-0.054	
Female in Mountain region	0.038	
Owner's characteristics, credit and resources		
Age	-0.002	**
Owner experience	0.001	
Less than high school education	0.040	
Some college	-0.002	
Four-year degree	-0.040	**
Advanced degree	-0.024	
Log of home equity	-0.004	**
Bankruptcy in past 7 years	0.229	**
Judgement against in past 3 years	0.276	**
Log of net worth excluding home	-0.025	**

Variable	Marginal Effect	
Firm's characteristics, credit and financial health		
D&B credit score = moderate risk	-0.010	
D&B credit score = average risk	0.038	
D&B credit score = significant risk	0.045	
D&B credit score = high risk	0.102	**
Total employees	0.000	
Percent of business owned by principal	0.001	**
Family-owned business	-0.012	
Firm purchased	-0.010	
Firm inherited	-0.034	
Firm age	-0.003	**
Firm has checking account	0.008	
Firm has savings account	0.013	
Firm has line of credit	-0.006	
Existing capital leases	0.031	
Existing mortgage for business	0.047	**
Existing vehicle loans	0.031	*
Existing equipment loans	0.042	*
Existing loans from stockholders	0.074	**
Other existing loans	0.105	**
Firm used trade credit in past year	0.018	
Log of total sales in prior year	-0.021	**
Negative sales in prior year	-0.091	*
Log of cost of doing business in prior year	0.012	*
Log of total assets	0.005	
Log of total equity	-0.008	
Negative total equity	-0.032	
Firm bankruptcy in past 7 years	0.197	*
Firm delinquency in business transactions	0.145	**

Variable	Marginal Effect	
Firm and lender environment and loan characteristics		
Partnership	0.002	
S corporation	0.012	
C corporation	0.020	
Construction industry	0.033	
Manufacturing industry	-0.016	
Transportation, communications and utilities industry	-0.049	
Finance, insurance and real estate industries	0.038	
Engineering industry	-0.029	
Other industry	0.010	
Herfindahl index = .10 to .18	-0.006	
Herfindahl index = .18 or above	0.023	
Located in MSA	0.047	**
Sales market local only	-0.061	**

Note: * Statistically significant at 90% confidence level.
** Statistically significant at 95% confidence level.

For ease of interpretation the marginal effects of the probit coefficients are displayed in the figure. Significance is calculated using t-statistics from the probit coefficients associated with the marginal effects.

"Mining industry" perfectly predicted loan outcome and dropped out of the regression; "Owner has negative net worth" and "Negative total assets" dropped because of collinearity.

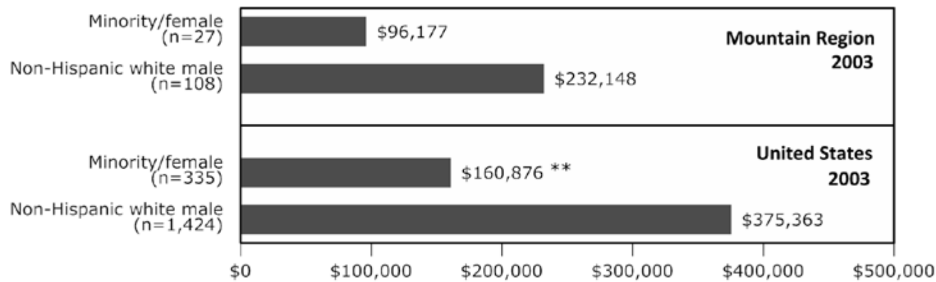
Source: BBC Research & Consulting analysis of 2003 SSBF data.

Loan values. The study team also considered average loan values for businesses that received loans. Results from the 2003 SSBF for mean loan values issued to different racial/ethnic and gender groups are presented in Figure G-11.

Comparisons of loan amounts between non-Hispanic white male-owned businesses and minority- and women-owned businesses indicated the following:

- Among firms in the Mountain region that obtained loans, minority- and women-owned businesses received loans that averaged about $96,000. Majority-owned firms received loans that averaged about $232,000. In sum, minority- and women-owned firms received loans that were 41 percent of the value of majority-owned firms, on average.
- The disparity in loan value for minority- and women-owned firms for the Mountain region is similar to that for the nation, as shown below.

Figure G-11.
Mean value of approved business loans, 2003



Note: *, ** Denote that the difference in proportions from non-Hispanic white male-owned businesses is statistically significant at the 90% or 95% confidence level, respectively.

Source: BBC Research & Consulting from 2003 Survey of Small Business Finances.

Previous national studies have found that African American-owned businesses are issued loans that are worth less than loans issued to non-Hispanic white-owned businesses with similar characteristics. Examinations of construction companies in the United States have also revealed that African American-owned businesses are issued loans that are worth less than loans issued to businesses with otherwise identical characteristics.[77]

The Keen Independent study team conducted further econometric analysis to explore the relationships between loan amounts and the race/ethnicity and gender of business owners while statistically controlling for other factors but the results were not conclusive.

Interest rates. Figure G-12 presents average interest rates on commercial loans received by the race/ethnicity of business owners, based on 2003 SSBF data. In 2003, the average interest rate on loans issued to minority- and women-owned businesses in the United States appeared to be higher (by 1.1 percentage points) than the mean interest rate of loans for non-Hispanic white male-owned businesses. A similar disparity is reflected in the Mountain region data. Due to small sample size, the difference for businesses in the Mountain region was not statistically significant.

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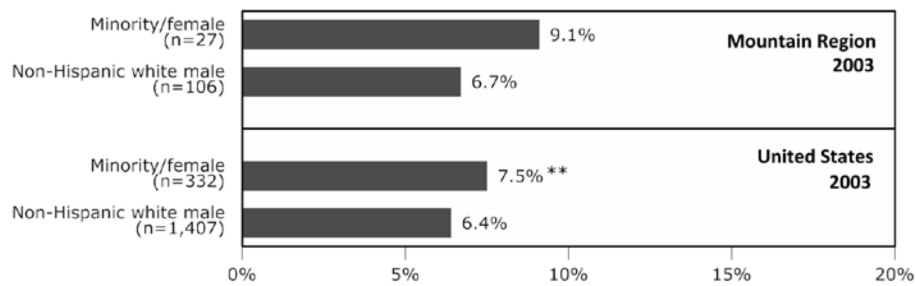
[77] Grown. 1991. "Commercial Bank Lending Practices and the Development of Black-Owned Construction Companies."

Figure G-12.
Mean interest rate for business loans, 2003



Note: *, ** Denote that the difference in proportions from non-Hispanic white male-owned businesses is statistically significant at the 90% or 95% confidence level, respectively.

Source: BBC Research & Consulting from 2003 Survey of Small Business Finances.

Other researchers' regression analyses of interest rates. Previous studies have investigated differences in interest rates across race/ethnicity and gender while statistically controlling for factors such as individual credit history, business credit history, and Dun and Bradstreet credit scores. Findings from those studies include the following:

- Hispanic American-owned businesses had significantly higher interest rates for lines of credit in places with less credit market competition. However, the study found no evidence that African American- or female-owned businesses received higher rates.[78]
- Among a sample of businesses with no past credit problems, African American-owned businesses had significantly higher interest rates on approved loans than other groups.[79]

Study team regression model for interest rates in the SSBF. The Keen Independent study team conducted a regression analysis of interest rates using data from the 2003 SSBF to explore the relationships between interest rates and the race/ethnicity and gender of business owners. The study team developed a linear regression model using the same control variables as the likelihood of denial model along with additional characteristics of the loan received, such as whether the loan was guaranteed, if collateral was required, the length of the loan, and whether the interest rate was fixed or variable.

The national sample for analysis of interest rates included 1,606 businesses that received a loan in the previous three years and the Mountain region included 120 such businesses.[80] Again, Mountain region effects were modeled using regional control variables.[81]

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[78] Cavalluzzo. 2002. "Competition, Small Business Financing and Discrimination: Evidence from a New Survey."

[79] Blanchflower. 2003. "Discrimination in the Small Business Credit Market."

[80] After excluding a small number of observations where the interest rate was imputed.

[81] The study team considered an interaction variable to represent businesses that are both minority- and female-owned but the term was not significant.

Figure G-13 presents the coefficients from the linear regression model. The results indicate that a number of race- and gender-neutral factors have a statistically significant effect on interest rates, including the following factors:

- The business owner's net worth is associated with a lower interest rate;
- High risk credit scores are associated with higher interest rates (by approximately 1 percentage point);
- An increase in total equity is associated with higher interest rates as is having negative equity;
- Being in the construction industry is associated with lower interest rates and being in the transportation, communications, and utilities industry is associated with higher interest rates;
- Being in a more concentrated industry (Herfindahl index equal to .18 or higher) is associated with higher interest rates;
- Vehicle loans are associated with lower interest rates;
- Collateral requirements are associated with lower interest rates;
- Longer loans are associated with lower interest rates; and
- Fixed rate loans are associated with higher interest rates than variable rate loans.

After statistically controlling for race- and gender-neutral influences, the study team observed that African American-owned businesses received loans with interest rates approximately 2 percentage points higher than non-Hispanic white-owned businesses. Hispanic American-owned businesses received loans with interest rates approximately 1 percentage point higher than non-Hispanic white-owned businesses.

Being in the Mountain region did not have a statistically significant impact on interest rates.

Figure G-13.
Interest rate (linear regression) in the U.S. in the 2003 SSBF,
Dependent variable: interest rate on most recent approved loan

Variable	Coefficient	
Race/ethnicity and gender		
Constant	10.357	**
African American	2.283	*
Asian American	0.507	
Hispanic American	1.119	**
Native American	-0.398	
Other minority	-0.910	
Female	-0.129	
Mountain region	0.361	
Minority in Mountain region	-0.508	
Female in Mountain region	-0.041	
Owner's characteristics, credit and resources		
Age	-0.008	
Owner experience	0.006	
Less than high school education	0.453	
Some college	0.437	
Four-year degree	-0.198	
Advanced degree	-0.440	
Log of home equity	0.018	
Bankruptcy in past 7 years	0.307	
Judgement against in past 3 years	-0.156	
Log of net worth excluding home	-0.122	*

Variable	Coefficient	
Firm's characteristics, credit and financial health		
D&B credit score = moderate risk	0.120	
D&B credit score = average risk	-0.001	
D&B credit score = significant risk	0.128	
D&B credit score = high risk	0.756	**
Total employees	-0.002	
Percent of business owned by principal	0.001	
Family-owned business	-0.501	
Firm purchased	-0.049	
Firm inherited	-0.040	
Firm age	-0.012	
Firm has checking account	0.033	
Firm has savings account	0.043	
Firm has line of credit	-0.098	
Existing capital leases	0.149	
Existing mortgage for business	0.003	
Existing vehicle loans	0.338	
Existing equipment loans	0.532	
Existing loans from stockholders	0.175	
Other existing loans	0.422	
Firm used trade credit in past year	0.187	
Log of total sales in prior year	-0.141	
Negative sales in prior year	-1.528	
Log of cost of doing business in prior year	-0.115	
Log of total assets	-0.179	
Log of total equity	0.216	**
Negative total equity	2.525	**
Firm bankruptcy in past 7 years	-0.401	
Firm delinquency in business transactions	-0.159	

Variable	Coefficient	
Firm and lender environment and loan characteristics		
Partnership	-0.416	
S corporation	-0.211	
C corporation	-0.145	
Mining industry	0.195	
Construction industry	-0.554	*
Manufacturing industry	-0.130	
Transportation, communications and utilities industry	1.445	**
Finance, insurance and real estate industries	-0.075	
Engineering industry	0.516	
Other industry	0.437	
Herfindahl index = .10 to .18	0.785	
Herfindahl index = .18 or above	1.045	*
Located in MSA	0.177	
Sales market local only	-0.098	
Approved Loan amount	0.000	
Capital lease application	1.093	
Business mortgage application	0.539	
Vehicle loan application	-1.123	**
Equipment loan application	-0.205	
Loan for other purposes	-0.245	
Loan guaranteed	-0.365	
Collateral required	-0.894	**
Length of loan (months)	-0.004	**
Fixed rate	1.163	**

Note: * Statistically significant at 90% confidence level.
** Statistically significant at 95% confidence level.

"Owner has negative net worth" and "Negative total assets" dropped out of the regression because of collinearity.

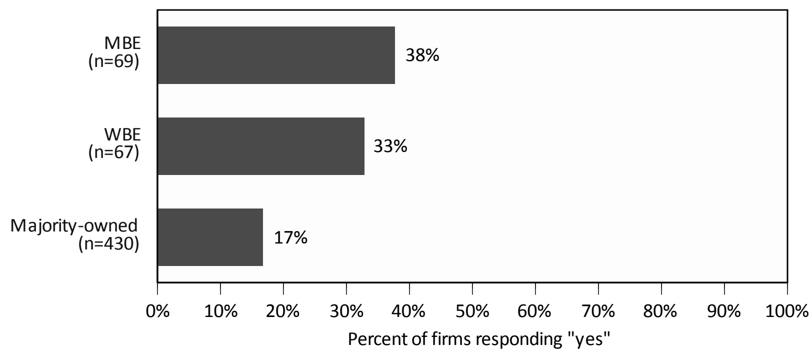
Source: BBC Research & Consulting analysis of 2003 SSBF data.

Results from Keen Independent availability interviews. At the close of the 2013 availability interviews conducted as part of the NDOT disparity study, Keen Independent asked, "Finally, we're interested in whether your company has experienced barriers or difficulties associated with starting or expanding a business in your industry or with obtaining work. Think about your experiences within the past five years as you answer these questions."

For each potential barrier, the study team examined whether the share of firms that indicated that they had experienced that specific barrier or difficulty differed between MBEs, WBEs and majority-owned firms.

Access to lines of credit and loans. The first question was, "Has your company experienced any difficulties in obtaining lines of credit or loans?" As shown in Figure G-14, 38 percent of MBEs and 33 percent of WBEs reported difficulties obtaining lines of credit or loans. Fewer majority-owned firms (17%) reported that they had experienced difficulties obtaining lines of credit or loans.

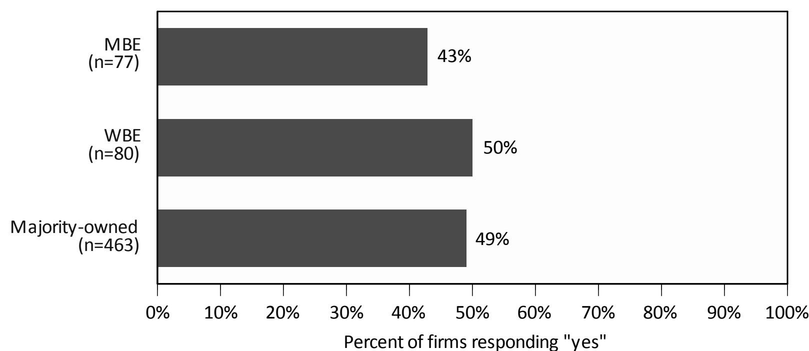
Figure G-14.
Has your company experienced any difficulties in obtaining lines of credit or loans?



Source: Keen Independent Research from 2013 Availability Interviews.

Receiving timely payment. Need for business credit is, in part, linked to whether firms are paid for their work in a timely manner. In the availability interviews, Keen Independent asked, "Has your company experienced any difficulties receiving payment in a timely manner?" Figure G-15 shows that many minority-, women- and majority-owned firms reported difficulty receiving timely payment.

Figure G-15.
Has your company experienced any difficulties receiving payment in a timely manner?



Source: Keen Independent Research from 2013 Availability Interviews.

Bonding and Insurance

Bonding is closely related to access to capital. Some national studies have identified barriers regarding MBE/WBEs and access to surety bonds for public construction projects.82 High insurance requirements on public sector projects may also represent a barrier for certain construction and engineering-related firms attempting to do business with government agencies.

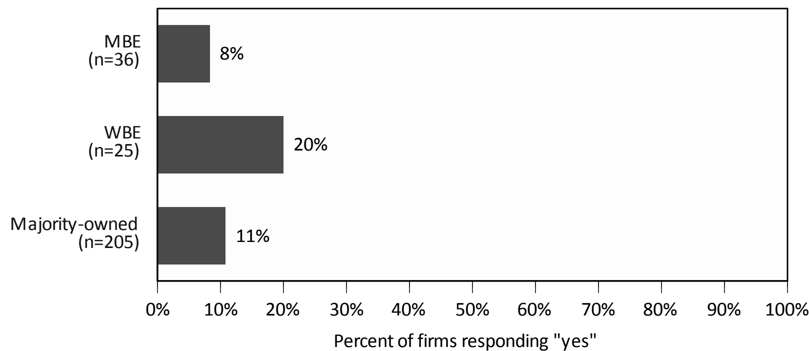
Bonding. To research whether bonding represented a barrier for Nevada businesses, Keen Independent asked firms completing availability interviews:

Has your company obtained or tried to obtain a bond for a project?

[and if so] Has your company had any difficulties obtaining bonds needed for a project?

Figure G-16 presents these results from the 2013 availability interviews. Among firms reporting that they had obtained or tried to obtain a bond, 20 percent of WBEs indicated difficulties obtaining bonds needed for a project. A smaller share of MBEs (8%) and majority-owned firms (11%) reported difficulties obtaining the bonding needed for a project.

Figure G-16.
Has your company had any difficulties obtaining bonds needed for a project?



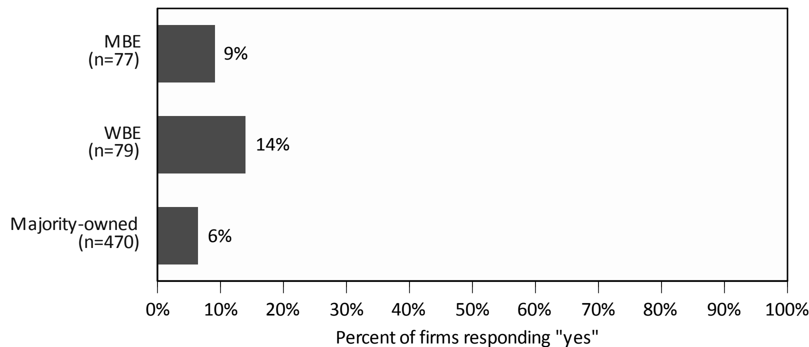
Source: Keen Independent Research from 2013 Availability Interviews.

82 For example, Enchautegui, Maria E. et al. 1997. "Do Minority-Owned Businesses Get a Fair Share of Government Contracts?" *The Urban Institute:* 1-117, p. 56.

Insurance. Keen Independent also examined whether minority- and women-owned firms were more likely than majority-owned firms within the study area to report that insurance requirements represented a barrier to bidding. Figure G-17 presents these results.

Relatively few firms said that insurance requirements on projects presented a barrier to bidding. About 14 percent of WBEs interviewed reported such difficulties. Fewer MBEs (9%) and majority-owned firms (6%) indicated that insurance requirements presented a barrier to bidding on projects.

Figure G-17.
Have any insurance requirements on projects presented a barrier to bidding?



Source: Keen Independent Research from 2013 Availability Interviews.

Summary

There is evidence that minorities and women face certain disadvantages in accessing capital that is necessary to start, operate, and expand businesses. Capital is required to start companies, so barriers accessing capital can affect the number of minorities and women who are able to start businesses. In addition, minorities and women start business with less capital (based on national data). A number of studies have demonstrated that lower start-up capital adversely affects prospects for those businesses. Key results included the following:

Home equity is an important source of funds for business start-up and growth.

- Fewer African Americans, Asian-Pacific Americans, Hispanic Americans and Native Americans in Nevada own homes compared with non-Hispanic whites.
- African Americans, Hispanic Americans and Native Americans who do own homes tend to have lower home values.
- In 2006 and 2011, high-income African Americans, Hispanic Americans, Native Americans, Asian Americans, and Native Hawaiian and other Pacific Islanders applying for home mortgages in Nevada were more likely than high-income non-Hispanic whites to have their applications denied. Except for Native Hawaiians and other Pacific Islanders, these disparities are also evident in 2009.
- Compared with non-Hispanic whites, subprime loans represented a greater proportion of conventional home purchase loans issued in 2006 for African Americans, Hispanic Americans, Native Americans, and Native Hawaiians and other Pacific Islanders in Nevada.
- Subprime loans were also a greater proportion of home refine loans for Hispanic Americans, Native Americans, and Native Hawaiians and other Pacific Islanders in 2006.

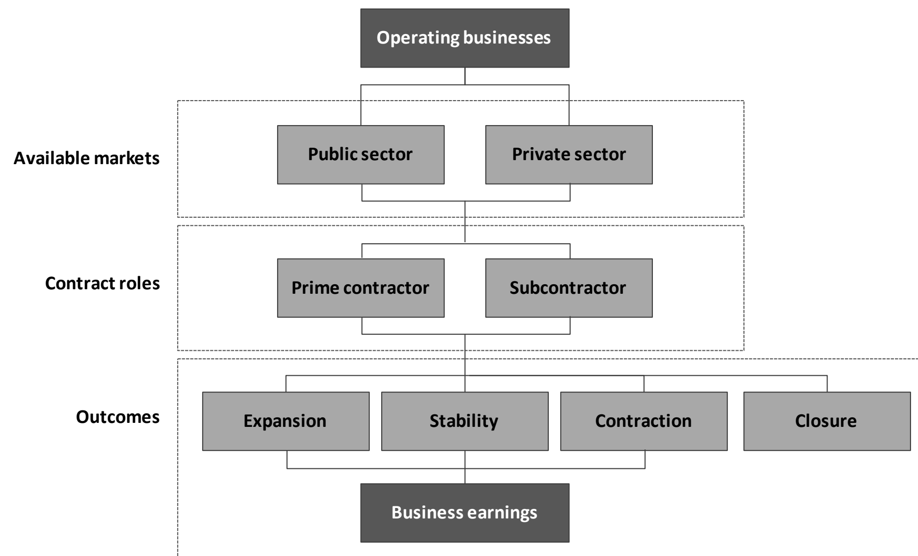
- More minority- and women-owned small businesses reported being denied loans in the Mountain region than non-Hispanic male-owned small businesses. There is evidence that African American small business owners were more likely to have been denied business loan applications than similarly situated non-Hispanic whites.
- Among small business owners who reported needing business loans, there is evidence that African Americans, Hispanic Americans, and women were more likely to forgo applying for loans due to fear of denial compared with similarly-situated non-minorities and men.
- There is evidence that minority- and women-owned small businesses in the Mountain region paid higher interest rates on their business loans than non-minority male-owned small businesses.
- In the availability interviews conducted as part of this study, minority- and women-owned firms were more likely to report difficulty obtaining business loans or lines of credit than majority-owned firms.

APPENDIX H.
Success of Businesses in the Nevada Construction and Engineering Industries

Keen Independent and BBC examined the success of minority- and women-owned business enterprises (MBE/WBEs) in the Nevada construction and engineering industries. The study team assessed whether business outcomes for MBE/WBEs differ from those of non-Hispanic white male-owned businesses (i.e., majority-owned businesses).[1] Figure H-1 provides a framework for the study team's analyses.

Figure H-1.
Business outcomes

Source:
Keen Independent Research



The study team researched outcomes for MBE/WBEs and majority-owned businesses in terms of:

- Participation in public and private sector markets, including contractor roles and sizes of contracts bid on and performed;
- Business closures, expansions, and contractions; and
- Business receipts and earnings; and
- Size distribution of gross revenue; and
- Potential barriers to starting or expanding businesses.

[1] The study team uses the terms "MBEs" and "WBEs" to refer to businesses that are owned and controlled by minorities or women (according to the race/ethnicity and gender definitions listed above), regardless of whether they are certified or meet the revenue and net worth requirements for DBE certification and regardless of whether they are certified as MBEs or WBEs through the Nevada State Office of Minority and Women's Business Enterprises.

Keen Independent worked with BBC Research & Consulting, a study team subconsultant, to complete these analyses.

Participation in Public and Private Sector Markets

The study team drew on information that the study team collected as part of the availability analysis to examine business outcomes for MBE/WBEs and majority-owned businesses in Nevada, including information about:

- Whether businesses have been successful in the private sector, public sectors, or both;
- Whether businesses have bid on and won contracts in study industries and the sizes of those contracts; and
- Whether businesses have worked as prime contractors, subcontractors, or both.

Public sector versus private sector work. The Keen Independent study team examined whether minority- and women-owned transportation contracting businesses were any more or less likely to work in the private sector than the public sector. The study team separately examined responses for businesses working in the construction and engineering industries.[2,3]

Construction. Figure H-2 presents the distribution of majority-, minority-, and women-owned businesses that reported bidding on government and private sector prime contracts and subcontracts, based on availability interview responses.

- Of the 178 construction businesses that reported bidding on public sector prime contracts in the past five years, 77 percent were majority-owned, 9 percent were MBEs, and 14 percent were WBEs.
- Of the 212 construction businesses that reported bidding on private sector prime contracts in the past five years, 75 percent were majority-owned, 12 percent were MBEs, and 13 percent were WBEs.
- MBE/WBEs represent a higher percentage of the businesses that said they bid on public sector subcontracts (24%) than the businesses said they bid on public sector prime contracts (23%).
- MBE/WBEs represent a higher percentage of the businesses that said they bid on private sector subcontracts (24%) than the businesses said they bid on private sector prime contracts (22%).

The study team also asked construction businesses if they had worked on any public sector contracts (including both prime contracts and subcontracts). When asked to consider the past five years, about 83 percent of MBE construction businesses reported that they had been successful in obtaining

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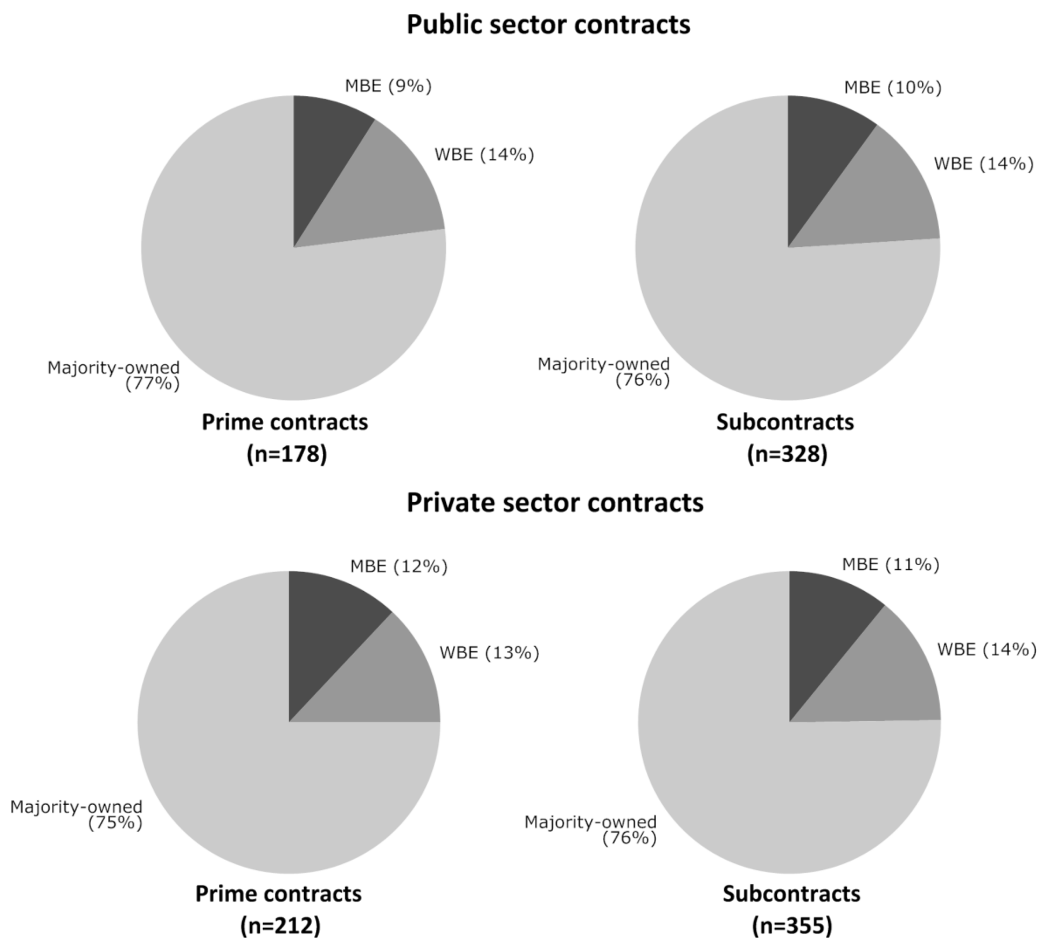
[2] The study team deemed a business to have performed or bid on public sector work if it answered "yes" to either of the following questions in availability interviews: (a) "During the past five years, has your company submitted a bid or a price quote for any part of a contract for a state or local government agency in the Nevada?"; or (b) "During the past five years, has your company worked on any part of a contract for a state or local government agency in the Nevada?"
[3] The study team deemed a business to have performed or bid on private sector work if it answered "yes" to either of the following questions in availability interviews: (a) "During the past five years, has your company submitted a bid or a price quote for any part of a contract for a private sector organization in Nevada?"; or (b) "During the past five years, has your company worked on any part of a contract for a private sector organization in Nevada?"

public sector work. A higher percentage of WBEs (87%) said that they had obtained public sector work. Compared to MBE/WBEs, a slightly larger percentage of majority-owned construction businesses (91%) reported that they bid had been successful in obtaining public sector work.

Overall, all businesses were more successful obtaining construction work in the private sector than in the public sector. About 91 percent of MBEs and 94 percent of WBEs reported that they had been successful in obtaining private sector construction work in the past five years. About 94 percent of majority-owned businesses reported that they had been successful in obtaining construction work in the private sector.

Figure H-2.
MBEs, WBEs and majority-owned construction businesses bidding on public sector and private sector work in Nevada in the past five years

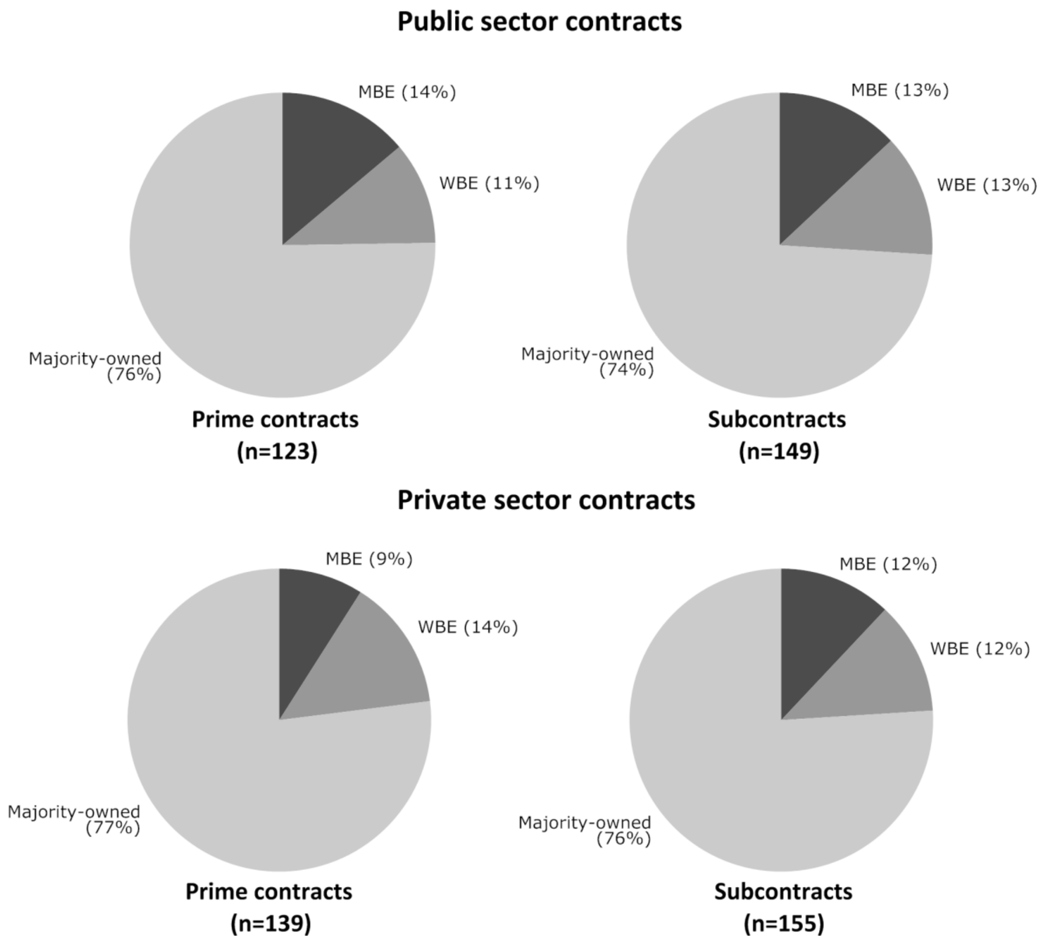


Note: "WBE" represents white women-owned firms.
Total may not add to 100 percent due to rounding.

Source: Keen Independent Research from 2013 Availability Interviews.

Engineering. The study team also analyzed the representation of MBE/WBEs among all businesses bidding on public and private sector engineering prime contracts and subcontracts. Figure H-3 presents the distribution of majority-, minority-, and women-owned engineering businesses that reported bidding on public and private sector prime contracts and subcontracts.

Figure H-3.
MBEs, WBEs and majority-owned engineering businesses bidding on public sector and private sector work in Nevada in the past five years



Note: "WBE" represents white women-owned firms.
Total may not add to 100 percent due to rounding.

Source: Keen Independent Research from 2013 Availability Interviews.

In the Nevada engineering industry, MBE/WBEs represented about 25 percent of businesses that reported bidding on public sector prime contracts and 23 percent of businesses that reported bidding on private sector prime contracts as well. MBE/WBEs represent a similar percentage of the businesses that said they bid on subcontracts.

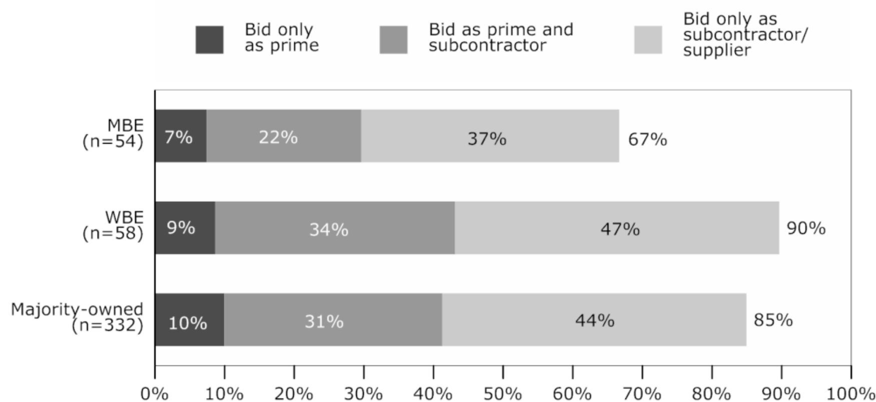
The study team also asked engineering businesses if they had received any engineering work in the past five years. Compared to WBEs, MBEs and majority- owned businesses were more successful in obtaining private sector work. About 91 percent of WBEs and MBEs said that they had worked on a public sector engineering contract in the past five years. About 96 percent of majority-owned engineering businesses said that they had received public sector engineering work in the past five years.

Overall, all businesses were more successful in obtaining private sector engineering work than public sector engineering work, but MBEs were less successful in doing so than WBEs and majority-owned businesses. About 96 percent of WBEs said that they had worked on a private sector engineering contract in the past five years, compared to 89 percent of MBEs. About 95 percent of majority-owned businesses said that they had been successful in obtaining private sector work in the past five years.

Bidding as prime contractors and subcontractors/suppliers. Keen Independent further examined the percentage of MBEs, WBEs, and majority-owned businesses that bid on public and private sector work in different roles (i.e., as prime contractors, subcontractors, or both). Those results pertain to bidding within the Nevada transportation contracting industry within the past five years.

Construction. Figure H-4 presents the percentage of majority-, minority, and women-owned construction businesses that reported bidding on public sector work as a prime contractor, a subcontractor, or as both.

Figure H-4.
Percent of construction businesses that reported submitting a bid for any part of a public sector project in Nevada in the past five years



Note: "WBE" represents white women-owned firms.

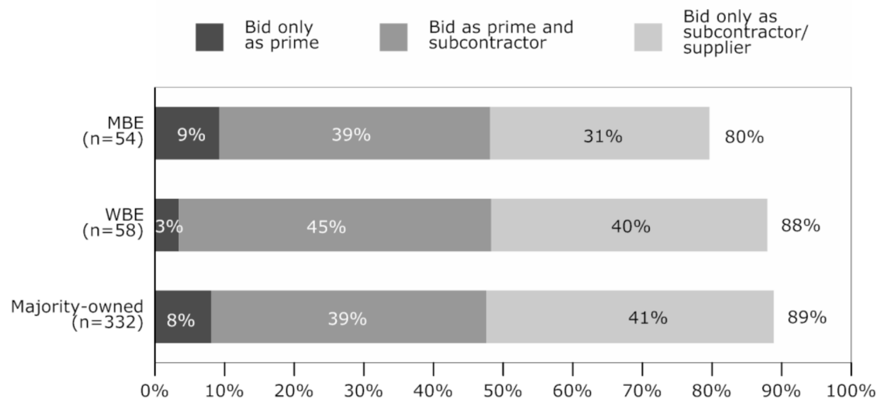
Source: Keen Independent Research from 2013 Availability Interviews.

- Of MBE construction businesses that reported being qualified and interested in future transportation work, 67 percent said that they had bid on public sector work as a prime contractor or as a subcontractor in the past five years (including submitting price quotes). About 7 percent bid only as a prime contractor and 37 percent bid only as a subcontractor.
- A larger percentage of WBEs that reported being qualified and interested in future transportation work (90%) reported bidding on public sector work in the past five years. About 9 percent had bid only as a prime contractor and 47 percent bid only as a subcontractor.

- Eighty-five percent of majority-owned construction businesses that reported being qualified and interested in future transportation work had bid on public sector work in the past five years. Compared to MBE/WBEs, a slightly smaller percentage of majority-owned businesses (10%) reported bidding only as a prime contractor. About 44 percent of majority-owned businesses reported that they had bid only as a subcontractor.

The study team also asked business owners and managers if their businesses had bid on a private sector construction project in the past five years. Figure H-5 presents the percentage of minority-, women-, and majority-owned construction businesses that reported bidding on private sector work as a prime contractor, a subcontractor, or as both.

Figure H-5.
Percent of construction businesses that reported submitting a bid for any part of a private sector project in Nevada in the past five years



Note: "WBE" represents white women-owned firms.

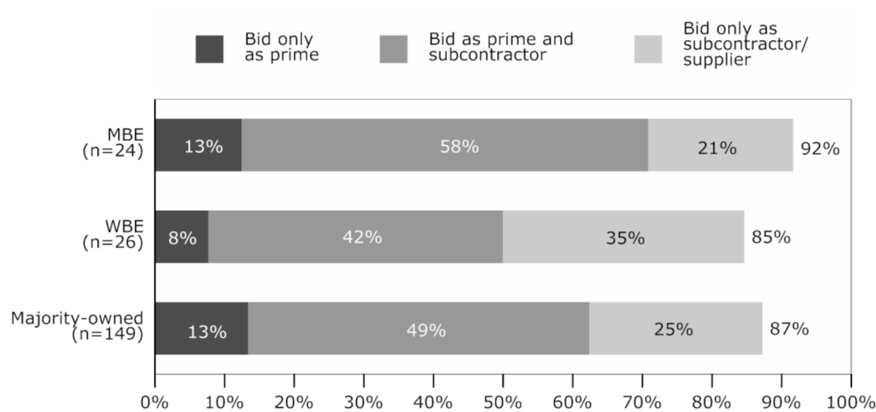
Source: Keen Independent Research from 2013 Availability Interviews.

- Of MBE construction businesses that reported being qualified and interested in future transportation work, 80 percent said that they had bid on private sector work as a prime contractor or as a subcontractor in the past five years. About 9 percent reported that they had bid only as a prime contractor and 31 percent reported that they had bid only as a subcontractor.
- Overall, a larger percentage of WBEs that reported being qualified and interested in future transportation work (88%) reported bidding on private sector construction work, but a smaller percentage of WBEs (3%) than MBEs reported bidding only as a prime contractor. About 40 percent of WBEs said that they had bid only as a subcontractor on private sector work in the past five years.
- About 89 percent of majority-owned construction businesses that reported being qualified and interested in future transportation work said that they had bid on private sector work in the past five years. Compared to MBE/WBEs, a larger percentage of majority-owned businesses (8%) reported that they had bid only as prime contractor. About 41 percent of majority-owned businesses reported that they had bid only as a subcontractor.

Engineering. Figures H-6 and H-7 examine prime contract versus subcontract bidding for engineering businesses, based on data from the availability interviews.

Figure H-6 presents the percentage of majority-, minority-, and women-owned Nevada engineering businesses that reported bidding on public sector work as a prime contractor, a subcontractor, or as both.

Figure H-6.
Percent of engineering businesses that reported submitting a bid for any part of a public sector project in Nevada in the past five years



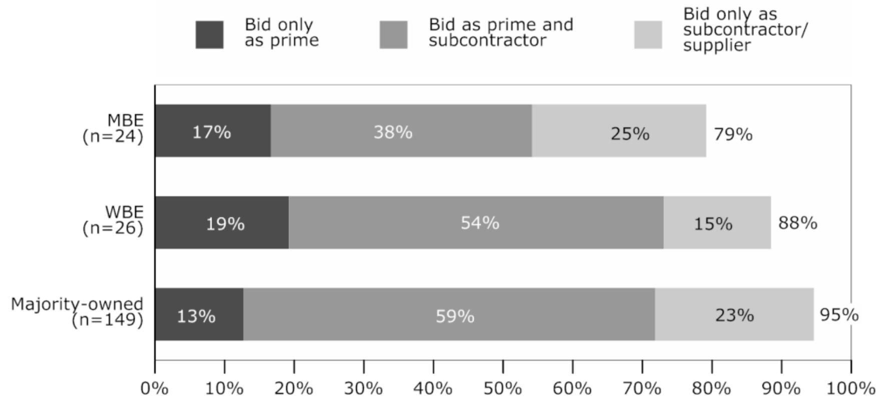
Note: "WBE" represents white women-owned firms.

Source: Keen Independent Research from 2013 Availability Interviews.

- Of MBE engineering businesses that reported being qualified and interested in future transportation work, 92 percent said that they had bid on public sector work as a prime contractor or as a subcontractor in the past five years (including submitting price quotes). Only 13 percent of MBEs reported that they had bid only as a prime contractor and 21 percent reported that they had bid only as a subcontractor.
- A smaller percentage of WBEs that reported being qualified and interested in future transportation work (85%) reported bidding on public sector work in the past five years. About 8 percent reported that they had bid only as a prime contractor and 35 percent reported that they bid only as a subcontractor.
- A smaller percentage of majority-owned engineering businesses that reported being qualified and interested in future transportation work said that they had bid on public sector work in the past five years (87%). Compared to WBEs, a larger percentage of majority-owned businesses (13%) reported bidding only as a prime contractor. About 25 percent of majority-owned firms reported that they had bid only as a subcontractor.

Figure H-7 presents the percentage of majority-, minority, and women-owned Nevada engineering businesses that reported bidding on private sector work as a prime contractor, a subcontractor, or as both.

Figure H-7.
Percent of engineering businesses that reported submitting a bid for any part of a private sector project in the past five years



Note: "WBE" represents white women-owned firms.

Source: Keen Independent Research from 2013 Availability Interviews.

- Of MBE engineering businesses that reported being qualified and interested in future transportation work, about 79 percent said that they had bid on private sector work as a prime contractor or as a subcontractor in the past five years. About 17 percent said that they had bid only as a prime contractor and 25 percent said that they had bid only as a subcontractor.

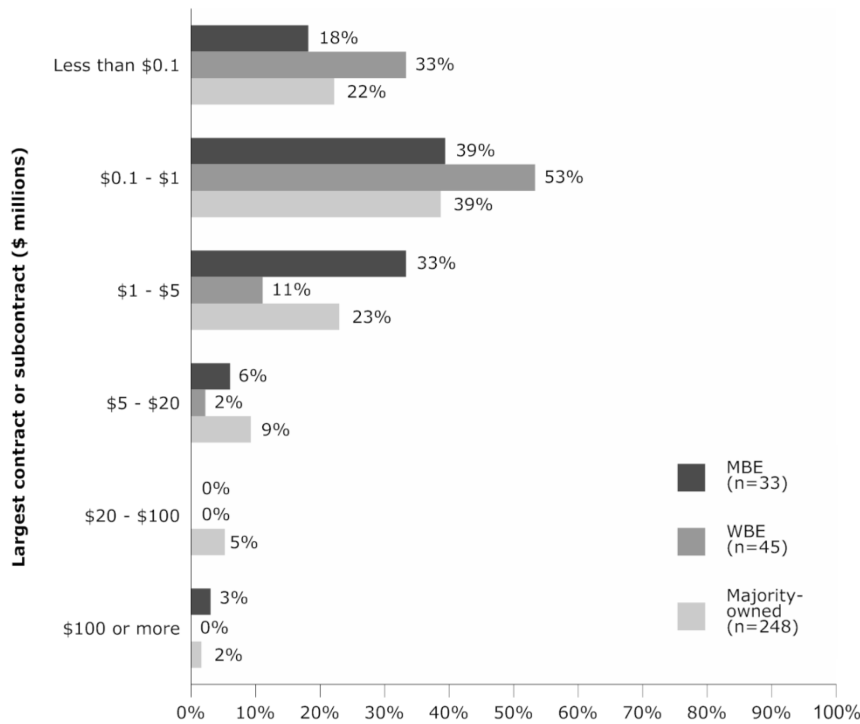
- About 88 percent of WBEs that reported being qualified and interested in future transportation work said that they had bid on private sector engineering work in the past five years. Compared to MBEs, a larger percentage of WBEs (19%) reported bidding only as a prime contractor. About 15 percent of WBEs said that they had bid only as a subcontractor.

- About 95 percent of majority-owned engineering businesses that reported being qualified and interested in future transportation work said that they had bid on private sector work in the past five years. Compared to MBE/WBEs, a smaller percentage of majority-owned businesses (13%) had bid only as a prime contractor. About 23 percent of majority-owned businesses had bid only as a subcontractor.

Largest contract in Nevada in the past five years. As part of the availability interviews, the study team asked businesses to identify the largest contract they were awarded in Nevada in the past five years. Figure H-8 presents those results for majority-, minority- and women-owned Nevada construction businesses.

Construction. Among construction businesses, 13 percent of WBEs reported that the largest contract they received was worth at least $1 million compared with 39 percent of majority-owned firms and 42 percent of MBEs.

Figure H-8.
Largest contract or subcontract that businesses received in Nevada in the past five years, construction



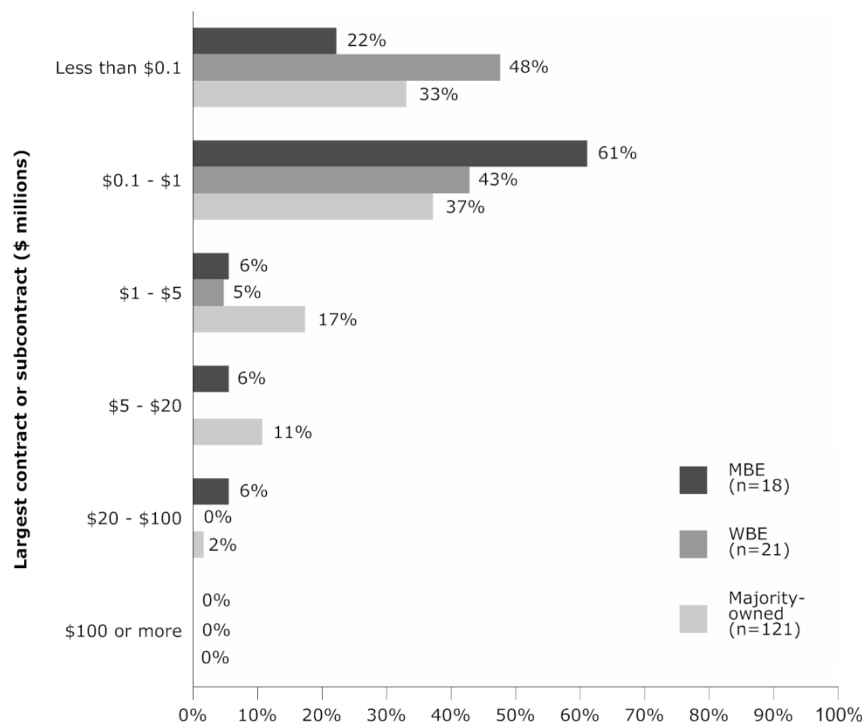
Note: “WBE” represents white women-owned firms.

Source: Keen Independent Research from 2013 Availability Interviews.

Engineering. Figure H-9 presents data on the largest contracts that majority-, minority- and women-owned engineering businesses were awarded in the past five years.

Among engineering businesses, only 5 percent of WBEs and 18 percent of MBEs reported that the largest contract they had been awarded in the past five years was worth $1 million or more compared with 30 percent of majority-owned businesses.

Figure H-9.
Largest contract or subcontract that the company received in Nevada in the past five years, engineering



Note: "WBE" represents white women-owned firms.

Source: Keen Independent Research from 2013 Availability Interviews.

Relative Bid Capacity

Some recent legal cases regarding race- and gender-conscious contracting programs have considered the importance of the "relative capacity" of businesses included in an availability analysis.[4] One approach to accounting for differing capacities among different types of businesses is to examine relatively small contracts, a technique noted in Rothe Development Corp. v. U.S. Department of Defense. In addition to examining small contracts, Keen Independent directly measured capacity in its availability analysis.[5]

Measurement of capacity. The availability analysis produced a database of more than 500 businesses potentially available for NDOT work. "Relative capacity" for a business is measured as the largest contract or subcontract that the business performed or reported that they had bid on within the five years preceding when Keen Independent interviewed it.

[4] For example, see the decision of the United States Court of appeals for the Federal Circuit in *Rothe Development Corp. v. U.S. Department of Defense, 545 F.3d 1023 (Fed. Cir. 2008).*

[5] See Appendix D for details about the availability interview process.

Assessment of possible disparities in capacity of MBE/WBEs and majority-owned businesses. One factor that affects capacity is the specializations, or subindustries, of businesses within the transportation contracting industry. A subindustry such as paving and highway construction tends to involve relatively large projects. Other subindustries, such as surveying, typically involve smaller projects. One way of accounting for the variation in bid capacity among businesses in different subindustries is to assess whether a business has a relative bid capacity above or below the median level of businesses in the same subindustry.

Keen Independent tested whether MBE/WBEs bid on larger or smaller prime contracts or subcontracts compared with other businesses in the same subindustry. Figure H-10 indicates the median relative bid capacity among Nevada businesses in each of the more than 20 subindustries that the study team examined in the availability analysis. Note that the interview questions regarding the largest project that businesses had bid on or been awarded captured data in dollar ranges.

Figure H-10.
Median relative capacity by subindustry

Subindustry	Median Bid Capacity
Construction	
Asphalt paving	$2 million to $5 million
Asphalt and concrete supply	$2 million to $5 million
Concrete	$100,000 to $500,000
Demolition	$500,000 to $1 million
Drilling and foundations	$2 million to $5 million
Electrical work, lighting, and signals	$1 million to $2 million
Excavation, grading, and drainage	$500,000 to $1 million
Highway fence, guardrail and sign installation	$100,000 to $500,000
Landscaping and related work	$100,000 to $500,000
Painting for road or bridge projects	$500,000 to $1 million
Rental of construction equipment	$100,000 to $500,000
Sealing, striping or pavement marking	$100,000 or less
Structural concrete work	$500,000
Structural steel supply	$100,000 to $500,000
Structural steel work	$500,000 to $1 million
Traffic control and flagging services	$100,000 to $500,000
Trucking and hauling	$100,000 to $500,000
Professional services	
Construction management	$500,000 to $1 million
Environmental consulting	$100,000 or less
Highway or bridge design	$100,000 to $500,000
Soils and materials testing	$500,000 to $1 million
Surveying and mapping	$100,000 to $500,000
Transportation planning	$100,000 to $500,000

Source: BBC Research & Consulting from 2013 Availability Interviews.

Construction. An initial question is whether MBE/WBEs are as likely as majority-owned businesses to have above-median capacities within their subindustries. Figure H-11 presents those results for construction businesses.

- About 36 percent of MBE construction businesses had above-median relative capacities.
- Compared to MBEs, a lower percentage of WBE construction businesses (26%) reported relative capacities that were higher than the median for their subindustries.
- Compared to MBE/WBEs, a higher percentage (38%) of majority-owned construction businesses had above-median relative capacities.

Figure H-11.
Proportion of firms with above-median bid capacity by ownership

Source:
BBC Research & Consulting from 2013Availability Interviews.

Firm ownership	Construction	Engineering
Minority-owned	36 %	31 %
Female-owned	26	35
Majority-owned	38	49

Engineering. Figure H-11 also shows the percentage of engineering businesses that reported relative capacities that exceeded the median for their subindustries.

- About 31 percent of MBE engineering businesses reported that they had relative capacities that were higher than the median for their subindustries.
- Compared to MBEs, a higher percentage of WBEs (35%) reported having above-median bid capacities.
- Forty-nine percent of majority-owned engineering businesses reported having above-median bid capacities.

Further analysis. Keen Independent considered whether race- and gender-neutral factors could account for the disparities in relative capacity that the study team identified for MBEs and WBEs in construction and engineering. There were several variables from the availability interviews that may be related to relative capacity — for example, annual revenue, number of employees, and whether a business has multiple establishments in Nevada.

After considering business characteristics from the availability interviews, the study team determined that age of business was the race- and gender-neutral neutral factor that might best explain differences in relative capacity within a subindustry while also being external to capacity measures. Theoretically, the longer that companies are in business, the larger the contracts or subcontracts that they might pursue.

To test that hypothesis, the study team conducted a logistic regression analysis for the construction and engineering industries combined to determine whether relative capacity could be at least partly explained by the age of businesses and whether MBE/WBEs differ from majority-owned businesses of similar ages in terms of capacity.

The results are shown in Figure H-12. The results of the analysis indicated the following:

- Business age was a statistically significant predictor of having above-median capacity for construction businesses. The older a business, the more likely it was to show above-median capacity.
- Minority ownership had little relationship to bid capacity after controlling for subindustry and age of firm.
- Female ownership was negatively related to having above-median capacity, but that effect was not statistically significant, perhaps due to small sample sizes

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Figure H-12.
Nevada bid capacity model

Note:

* Denotes statistical significance at the 95% confidence level.

Source:

BBC Research & Consulting from 2013 Availability Interviews.

Variable	Coefficient	Z-Statistic
Constant	-0.88	-4.95 **
Age of firm	0.02	4.08 **
Minority	-0.07	-0.21
Female	-0.41	-1.25

Summary of markets, contracting roles, and bid capacity. Availability interview results show that many MBE/WBEs attempt to work as prime contractors and as subcontractors on both public and private sector contracts:

- Availability interview results for businesses in the construction and engineering industries indicated that MBE/WBEs were slightly more likely to have pursued work in the public sector than the private sector within the past five years.
- MBEs in the engineering industry were less likely than WBEs and majority-owned businesses to have said that they pursued private sector work in the past five years.
- Overall, majority-owned businesses were more likely than MBE/WBEs to report that they have bid as prime contractors. That result was observed in both the construction and engineering industries and in the public and private sectors.

Data from the availability interviews also indicated differences in the success that businesses experience in obtaining work:

- There is evidence that MBEs and WBEs were less likely to have been successful than majority-owned construction firms when pursuing public sector work and private sector work.
- Among engineering-related businesses, MBEs and WBEs were less likely to have been successful than majority-owned firms when pursuing public sector work.
- MBEs were less likely than WBEs and majority-owned engineering firms to have been successful obtaining private sector work.

There were also differences in the largest transportation prime contracts and subcontracts that businesses reported receiving in Nevada in the past five years. WBE construction firms were far less likely to report receiving large contracts than MBEs or majority-owned firms.

Keen Independent also examined the largest contracts businesses reported bidding on or receiving in the transportation contracting industry in Nevada in the past five years ("relative capacity").

- WBEs construction firms were much less likely than MBEs and majority-owned businesses to have bid capacity exceeding the median for their subindustries.
- MBEs and WBEs in the engineering-related subindustries were less likely to have above-median bid capacity than majority-owned businesses in the same subindustries.

Business Closures, Expansions, and Contractions

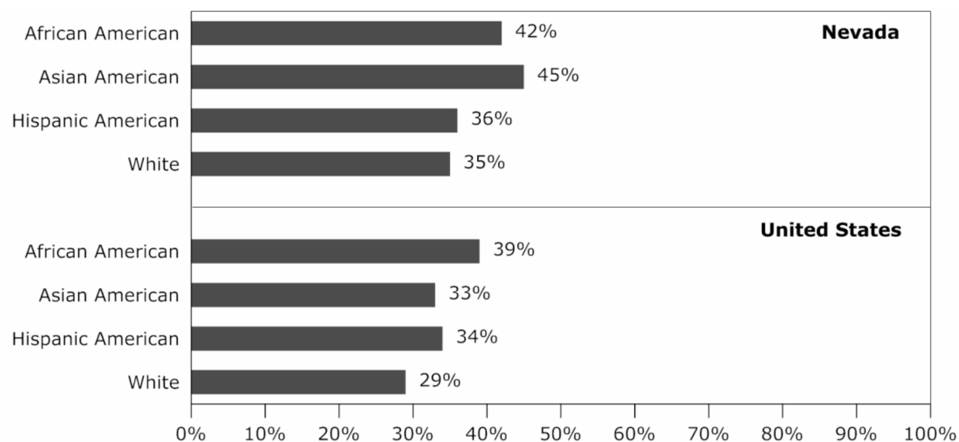
The study team used Small Business Administration (SBA) data to examine business outcomes — including closures, expansions, and contractions — for minority-owned businesses in Nevada and in the nation as a whole. The SBA analyses compare business outcomes for minority-owned businesses (by demographic group) to business outcomes for all businesses.

Business closures. High rates of business closures may reflect adverse business conditions for minority business owners.

Overall rates of business closures in Nevada. A 2010 SBA report investigated business dynamics and whether minority-owned businesses were more likely to close than other businesses. By matching data from business owners who responded to the 2002 U.S. Census Bureau Survey of Business Owners (SBO) to data from the Census Bureau's 1989-2006 Business Information Tracking Series, the SBA reported on business closure rates between 2002 and 2006 across different sectors of the economy.[6,7] Figure H-13 presents those data for African American-, Asian American-, and Hispanic American-owned businesses as well as for white-owned businesses.

As shown in Figure H-13, 45 percent of Asian American-owned businesses that were operating in Nevada in 2002 had closed by the end of 2006, a higher rate than for white-owned businesses (35%). Similarly, African American-owned businesses (42%) also had closure rates higher than white-owned businesses.

Figure H-13.
Rates of business closure, 2002 through 2006, Nevada and the U.S.



Note: Data refer only to non-publicly held businesses only. As sample sizes are not reported, statistical significance of these results cannot be determined; however, statistics are consistent with SBA data quality guidelines.

Source: Lowrey, Ying. 2010. "Race/Ethnicity and Establishment Dynamics, 2002-2006." U.S. Small Business Administration Office of Advocacy. Washington D.C.

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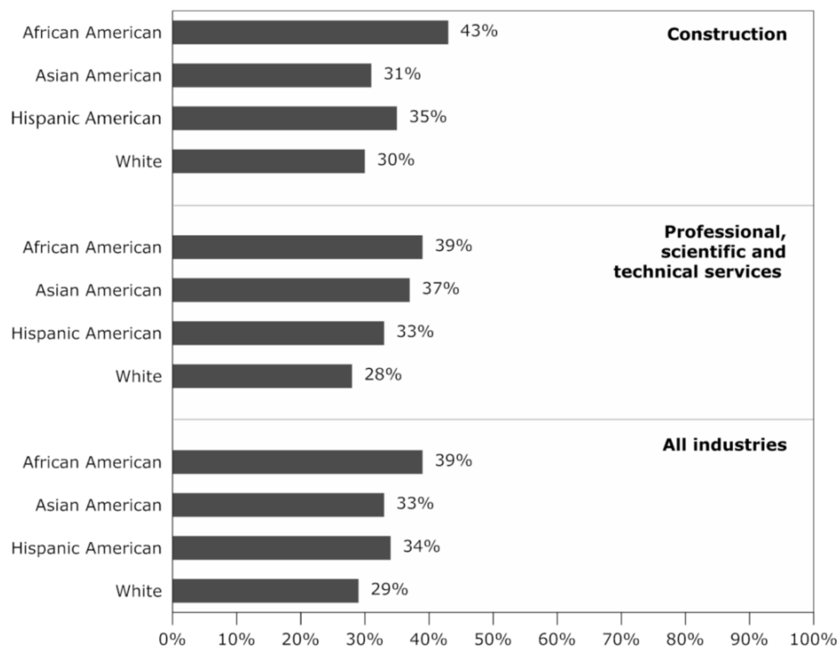
[6] Lowrey, Ying. 2010. "Race/Ethnicity and Establishment Dynamics, 2002-2006." U.S. Small Business Administration Office of Advocacy. Washington D.C.

[7] Businesses classifiable by race/ethnicity exclude publicly traded companies. The study team did not categorize racial groups by ethnicity. As a result some Hispanic Americans may also be included in statistics for African Americans, Asian Americans, and whites.

Rates of business closures by industry. The SBA report also examined business closure rates by race/ethnicity for 21 different industry classifications. Figure H-14 compares national rates of firm closure for the two industry classifications most related to the transportation contracting industry — construction and professional, scientific, and technical services (which includes engineering). Figure H-14 also presents closure rates for all industries by race/ethnicity.

African American-owned businesses that were operating in the United States in 2002 had the highest rate of closure by 2006 among all racial/ethnic groups — including white-owned businesses — in construction (43%); professional, scientific, and technical services (39%); and all industries (39%). Hispanic American-owned businesses and Asian American-owned businesses that were operating in 2002 were also more likely to have closed by 2006 than white-owned businesses in construction; professional, scientific, and technical services; and all industries. The study team could not examine whether those differences also existed in Nevada because the SBA analysis by industry was not available for individual states.

Figure H-14.
Rates of business closure, 2002 through 2006, construction; professional, scientific, and technical services; and all industries in the U.S.



Note: Data refer only to non-publicly held businesses. As sample sizes are not reported, statistical significance of these results cannot be determined; however, statistics are consistent with SBA data quality guidelines.

Source: Lowrey, Ying. 2010. "Race/Ethnicity and Establishment Dynamics, 2002-2006." U.S. Small Business Administration Office of Advocacy. Washington D.C.

Unsuccessful closures. Not all business closures can be interpreted as "unsuccessful closures." Businesses may close when an owner retires or a more profitable business opportunity emerges, both of which represent "successful closures." The 1992 Characteristics of Business Owners (CBO) Survey is one of the few Census Bureau sources to classify business closures into successful and unsuccessful subsets.[8] The 1992 CBO combines data from the 1992 Economic Census and a survey of business owners conducted in 1996. The survey portion of the 1992 CBO asked owners of businesses that had closed between 1992 and 1995, "Which item below describes the status of this business at the time the decision was made to cease operations?" Only the responses "successful" and "unsuccessful" were permitted. A firm that reported being unsuccessful at the time of closure was understood to have failed.

Figure H-15 presents CBO data on the proportion of businesses that closed due to failure between 1992 and 1995 in construction; professional, scientific, and technical services; and all industries.[9, 10] According to CBO data, African American-owned businesses were the most likely to report being "unsuccessful" at the time at which their businesses closed. About 77 percent of African American-owned businesses in all industries reported an unsuccessful business closure between 1992 and 1995, compared with only 61 percent of non-Hispanic white male-owned businesses. Unsuccessful closure rates were also relatively high for Hispanic American-owned businesses (71%) and for businesses owned by "other minority groups" (73%). The rate of unsuccessful closures for women-owned businesses (61%) was similar to that of non-Hispanic white male-owned businesses.

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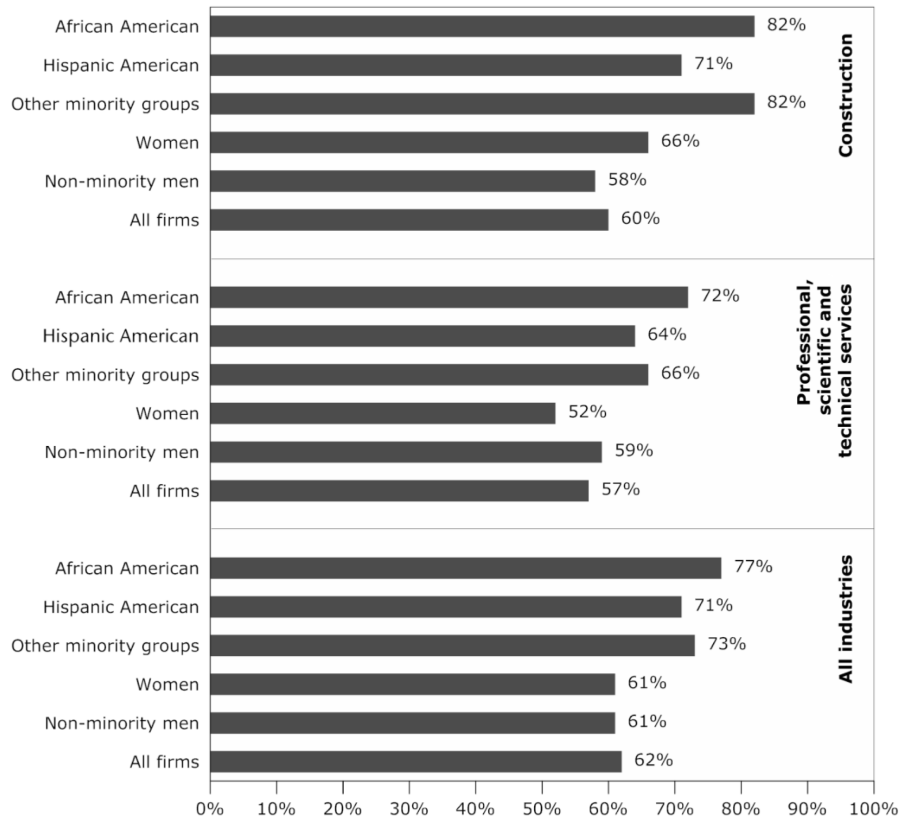
[8] CBO data from the 1997 and 2002 Economic Censuses do not include statistics on successful and unsuccessful business closures. To date, the 1992 CBO is the only U.S. Census dataset that includes such statistics.

[9] All CBO data should be interpreted with caution as businesses that did not respond to the survey cannot be assumed to have the same characteristics of ones that did. Holmes, Thomas J. and James Schmitz. 1996. "Nonresponse Bias and Business Turnover Rates: The Case of the Characteristics of Business Owners Survey." *Journal of Business & Economic Statistics*. 14(2): 231-241. This report does not include CBO data on overall business closure rates, because businesses not responding to the survey were found to be much more likely to have closed than ones that did.

[10] This study includes CBO data on firm success because there is no compelling reason to believe that closed businesses responding to the survey would have reported different rates of success/failure than those closed businesses that did not respond to the survey. Headd, Brian. U.S. Small Business Administration, Office of Advocacy. 2000. *Business Success: Factors leading to surviving and closing successfully*. Washington D.C.: 12.

Figure H-15.
Proportions of closures reported as unsuccessful between 1992 and 1995 in the U.S.



Source: U.S. Census Bureau, 1996 Characteristics of Business Owners Survey (CBO).

In the construction industry, minority- and women-owned businesses were more likely to report unsuccessful business closures than non-Hispanic white male-owned businesses (58%). Those trends were similar in the professional services industry with one exception — women-owned businesses (52%) were less likely to report unsuccessful closures than non-Hispanic white male-owned businesses (59%).

Reasons for differences in unsuccessful closure rates. Several researchers have offered explanations for higher rates of unsuccessful closures among minority- and women-owned businesses compared with non-Hispanic white-owned businesses:

- Unsuccessful business failures of minority-owned businesses are largely due to barriers in access to capital. Regression analyses have identified initial capitalization as a significant factor in determining firm viability. Because minority-owned businesses secure smaller amounts of debt equity in the form of loans, they may be more liable to fail. Difficulty in accessing capital is found to be particularly acute for minority-owned businesses in the construction industry.[11]
- Prior work experience in a family member's business or similar experiences are found to be strong determinants of business viability. Because minority business owners are much less likely to have such experience, their businesses are less likely to survive.[12] Similar research has been conducted for women-owned businesses and found similar gender-based gaps in the likelihood of business survival.[13]
- Level of education is found to be a strong determinant of business survival. Educational attainment explains a substantial portion of the gap in business closure rates between African American-owned and non-minority-owned businesses.[14]
- Non-minority business owners have broader business opportunities, increasing their likelihood of closing successful businesses to pursue more profitable business alternatives. Minority business owners, especially those who do not speak English, have limited employment options and are less likely to close a successful business.[15]
- The possession of greater initial capital and generally higher levels of education among Asian Americans are related to the relatively high rate of survival of Asian American-owned businesses compared to other minority-owned businesses.[16]

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[11] Bates, Timothy and Caren Grown. 1991. "Commercial Lending Practices and the Development of Black-Owned Construction Companies." Center for Economic Studies, U.S. Census Bureau.

[12] Robb, A. and Fairlie, R. 2005. "Why are Black-Owned Businesses Less Successful than White-Owned Businesses? The Role of Families, Inheritances, and Business Human Capital." University of California, Santa Cruz.

[13] Fairlie, R. and A. Robb. 2009. "Gender Differences in Business Performance: Evidence from the Characteristics of Business Owners Survey." University of California, Santa Cruz.

[14] *Ibid.* 24.

[15] Bates, Timothy. 2002. "Analysis of Young Small Businesses That Have Closed: Delineating Successful from Unsuccessful Closures." Center for Economic Studies, U.S. Census Bureau.

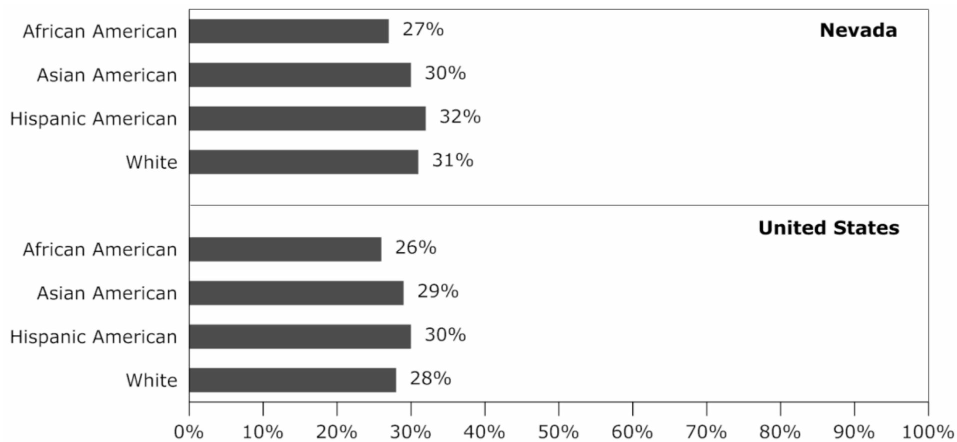
[16] Bates, Timothy. 1993. "Determinants of Survival and Profitability Among Asian Immigrant-Owned Small Businesses." Center for Economic Studies, U.S. Census Bureau.

Expansions and contractions. Comparing rates of expansion and contraction between minority-owned and white-owned businesses is also useful in assessing the success of minority-owned businesses. As with closure data, only some of the data on expansions and contractions that were available for the nation were also available at the state level.

Expansions. The 2010 SBA study of minority business dynamics from 2002 through 2006 examined the number of non publicly-held Nevada businesses that expanded and contracted between 2002 and 2006. Figure H-16 presents the percentage of all businesses, by race/ethnicity of ownership, that increased their total employment between 2002 and 2006. Those data are presented for Nevada and for the nation as a whole.

According to the SBA study, a smaller percentage of African American-owned businesses expanded between 2002 and 2006 (27%) compared with white-owned businesses in Nevada (31%).[17]

Figure H-16.
Percentage of businesses that expanded, 2002 through 2006, Nevada and the U.S.



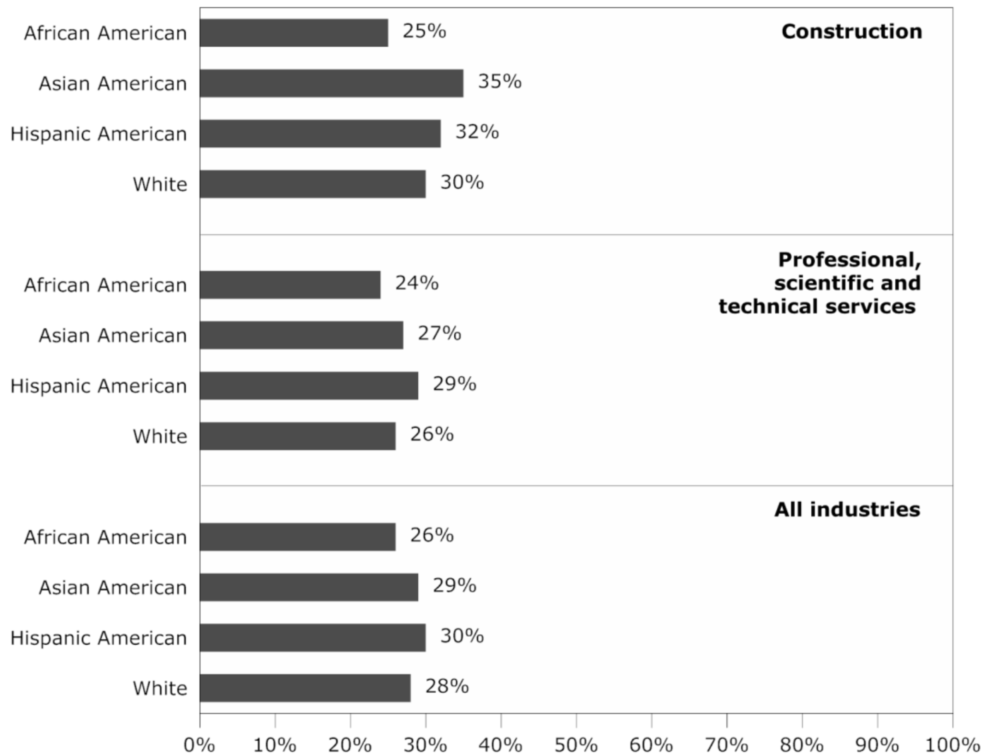
Note: Data refer only to non-publicly held businesses. As sample sizes are not reported, statistical significance of these results cannot be determined; however, statistics are consistent with SBA data quality guidelines.

Source: Lowrey, Ying. 2010. "Race/Ethnicity and Establishment Dynamics, 2002-2006." U.S. Small Business Administration Office of Advocacy. Washington D.C.

[17] Lowrey, Ying. 2010. "Race/Ethnicity and Establishment Dynamics, 2002-2006." U.S. Small Business Administration Office of Advocacy. Washington D.C.

Figure H-17 presents the percentage of businesses that expanded in construction; professional, scientific, and technical services; and in all industries in the United States. The 2010 SBA study did not report results for businesses in individual industries at the state level.

Figure H-17.
Percentage of businesses expanding, 2002 through 2006, U.S. construction; professional, scientific, and technical services; and all industries



Note: Data refer only to non-publicly held businesses. As sample sizes are not reported, statistical significance of these results cannot be determined; however, statistics are consistent with SBA data quality guidelines.

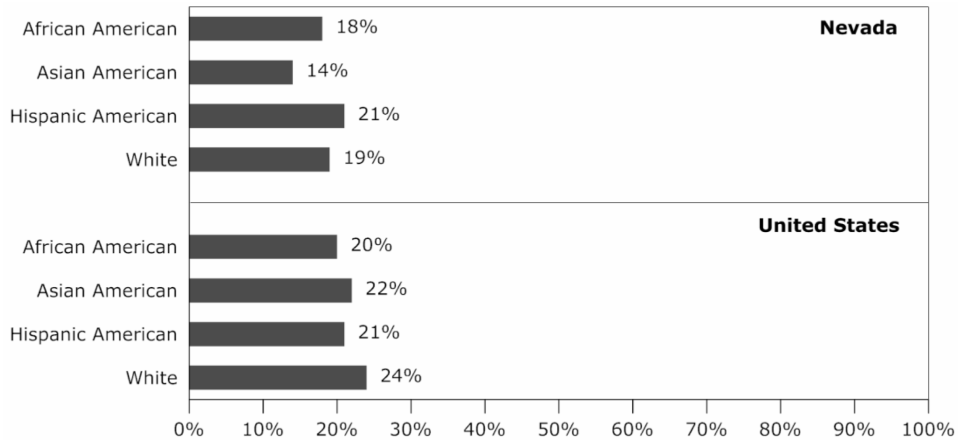
Source: Lowrey, Ying. 2010. "Race/Ethnicity and Establishment Dynamics, 2002-2006." U.S. Small Business Administration Office of Advocacy. Washington D.C.

At the national level, the patterns evident for construction and professional, scientific, and technical services were similar to those observed for all industries:

- African American-owned construction and professional, scientific, and technical services businesses were less likely than white-owned businesses to have expanded between 2002 and 2006.
- Hispanic American- and Asian American-owned companies in both construction and professional, scientific, and technical services were slightly more likely than white-owned businesses to have expanded between 2002 and 2006.

Contractions. Figure H-18 shows the percentage of non-publicly held businesses operating in 2002 that reduced their employment (i.e., contracted) between 2002 and 2006 in Nevada and in the nation as a whole. In Nevada, Hispanic American-owned businesses (21%) were more likely than white-owned businesses (19%) to have contracted between 2002 and 2006. Asian American-owned firms in Nevada were less likely to have contracted.

Figure H-18.
Percentage of businesses contracting, 2002 through 2006, Nevada and the U.S.

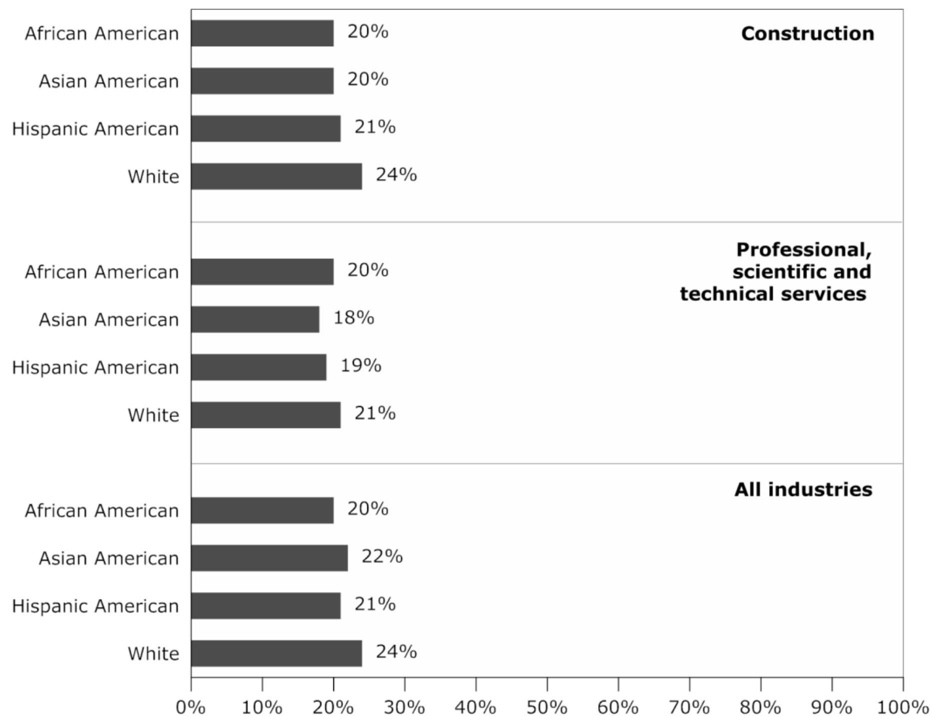


Note: Data refer only to non-publicly held businesses. As sample sizes are not reported, statistical significance of these results cannot be determined; however, statistics are consistent with SBA data quality guidelines.

Source: Lowrey, Ying. 2010. "Race/Ethnicity and Establishment Dynamics, 2002-2006." U.S. Small Business Administration Office of Advocacy. Washington D.C.

The SBA study did not report state-specific results relating to contractions in individual industries. Figure H-19 shows the percentage of businesses that contracted in construction; professional, scientific, and technical services; and all industries at the national level. Compared to white-owned construction businesses in the United States, a slightly smaller percentage of African American-, Hispanic American-, and Asian American-owned construction and professional, scientific, and technical services businesses contracted between 2002 and 2006.

Figure H-19.
Rates of business contraction, 2002 through 2006, U.S. construction; professional, scientific and technical services; and all industries



Note: Data refer only to non-publicly held businesses. As sample sizes are not reported, statistical significance of these results cannot be determined; however, statistics are consistent with SBA data quality guidelines.

Source: Lowrey, Ying. 2010. "Race/Ethnicity and Establishment Dynamics, 2002-2006." U.S. Small Business Administration Office of Advocacy. Washington D.C.

Business Receipts and Earnings

Annual business receipts and earnings for business owners are also indicators of the success of businesses. The study team examined:

- Business receipts data from the U.S. Census Bureau 2007 Survey of Business Owners;
- Business earnings data for business owners from the 2000 Census and 2009-2011 American Community Survey (ACS); and
- Annual revenue data for Nevada transportation construction and engineering businesses that the study team collected as part of availability interviews.

Business receipts. The study team examined receipts for businesses in Nevada and the United States using data from the 2007 SBO, conducted by the U.S. Census Bureau. The study team also analyzed receipts for businesses in individual industries. The SBO reports business receipts separately for employer businesses (i.e., those with paid employees other than the business owner and family members) and for all businesses.[18]

Receipts for all businesses. Figure H-20 presents 2007 mean annual receipts for employer and non-employer businesses by race/ethnicity and gender. The SBO data for businesses across all industries in Nevada indicate that average receipts for minority- and women-owned businesses were much lower than that for non-Hispanic white-owned (or male-owned) businesses, with some groups faring worse than others.

- Average receipts of African American-owned businesses ($121,000) were only 20 percent of the average for non-Hispanic white-owned businesses ($606,000).
- Asian American-owned businesses had average receipts ($222,000) that were 37 percent of the average of non-Hispanic white-owned businesses.
- Hispanic American-owned businesses had average receipts ($175,000) that were 29 percent of the average of non-Hispanic white-owned businesses.
- Average receipts of American Indian and Alaska Native-owned businesses ($262,000) were 43 percent of the average of non-Hispanic white-owned businesses.
- Average receipts of Native Hawaiian-owned businesses ($290,000) were approximately half that of non-Hispanic white-owned businesses.
- Average receipts for women-owned businesses ($203,000) were about one quarter of the average of male-owned businesses ($784,000).

Disparities in business receipts for minority- and women-owned businesses compared to non-Hispanic white- and male-owned businesses in Nevada are consistent with those seen in the United States as a whole. However, Asian American-owned businesses tend to fare worse relative to non-Hispanic white-owned businesses in Nevada than in the nation as a whole. A 2007 SBA study identified differences similar to those presented in Figure H-20 when examining businesses in all industries across the U.S.[19]

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[18] We use "all businesses" to denote SBO data used in this analysis. The data include incorporated and unincorporated businesses, but not publicly-traded companies or other businesses not classifiable by race/ethnicity and gender.

[19] Lowrey, Ying. 2007. *Minorities in Business: A Demographic Review of Minority Business Ownership*. Office of Economic Research, Office of Advocacy, U.S. Small Business Administration.

Figure H-20.
Mean annual receipts (thousands) for all businesses, by race/ethnicity and gender of owners, 2007

Note:

Includes employer and non-employer businesses. Does not include publicly-traded companies or other businesses not classifiable by race/ethnicity and gender. As sample sizes are not reported, statistical significance of these results cannot be determined.

Source:

2007 Survey of Business Owners, part of the U.S. Census Bureau's 2007 Economic Census.

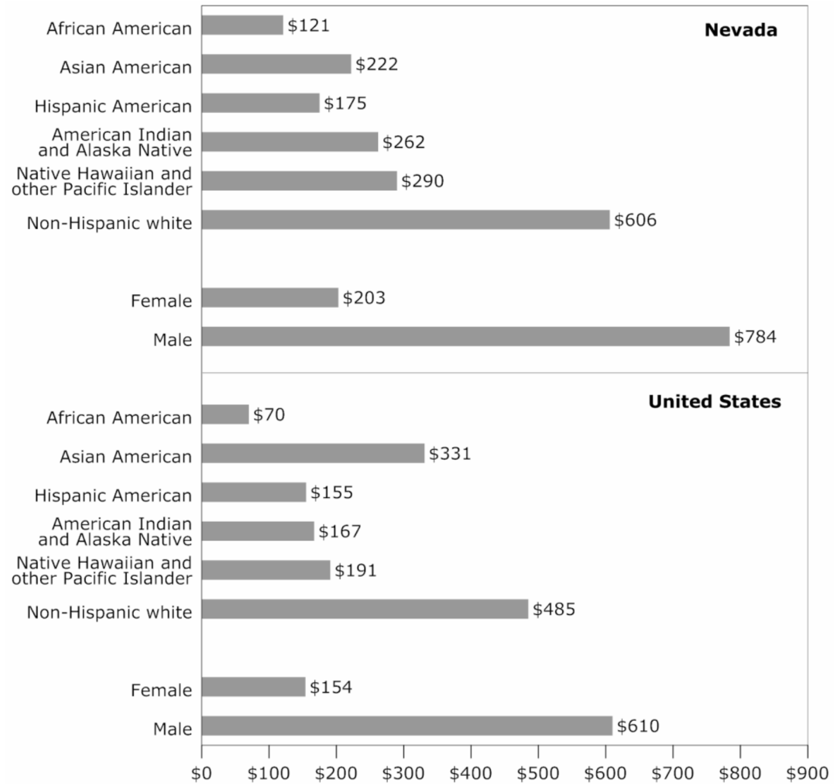


Figure H-21 presents average annual receipts in 2007 for only employer businesses in Nevada and in the United States. (Employer businesses are those with paid employees.) Minority- and women-owned businesses had substantially lower average business receipts than non-Hispanic white- and male-owned employer businesses in Nevada:

- Average receipts of African American-owned businesses ($1.6 million) were 61 percent that of non-Hispanic white-owned employer businesses in Nevada ($2.6 million).
- Average receipts of Hispanic- ($1.1 million) and Asian American-owned businesses ($1.1 million) were both less than half that of non-Hispanic white-owned employer businesses in Nevada.
- Average annual receipts of Native Hawaiian-owned employer businesses ($1.4 million) in Nevada were 54 percent of the average of non-Hispanic white-owned employer businesses.
- Average receipts of American Indian and Alaska Native-owned businesses ($2.3 million) were 90 percent that of non-Hispanic white-owned employer businesses in Nevada.
- Average receipts for women-owned employer businesses ($1.5 million) were about half that of male-owned employer businesses in Nevada ($3.0 million).

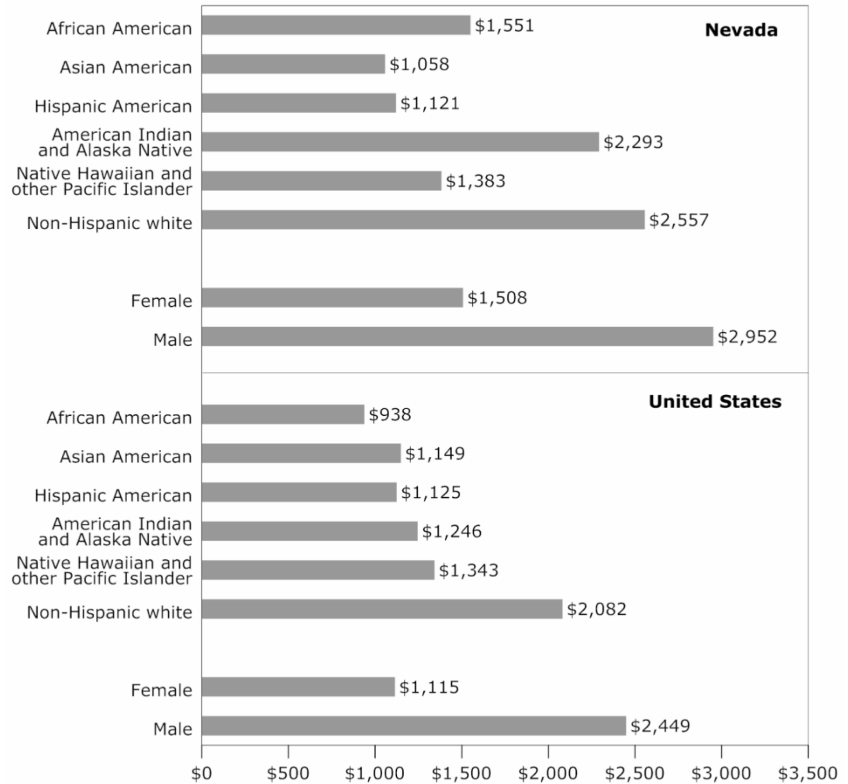
Figure H-21.
Mean annual receipts (thousands) for employer businesses, by race/ethnicity and gender of owners, 2007

Note:

Includes only employer businesses. Does not include publicly-traded companies or other businesses not classifiable by race/ethnicity and gender. As sample sizes are not reported, statistical significance of these results cannot be determined.

Source:

2007 Survey of Business Owners, part of the U.S. Census Bureau's 2007 Economic Census.



Receipts by industry. The study team also analyzed SBO receipts data separately for businesses in construction and professional, scientific, and technical services. Figure H-22 presents mean annual receipts in 2007 for all (i.e., employer and non-employer businesses combined) construction and professional, scientific, and technical services businesses and for just employer businesses by racial/ethnic and gender group. Results are presented for Nevada and for the nation as a whole.

Figure H-22.
Mean annual receipts (thousands) for businesses in the construction and professional, scientific and technical services industries, by race/ethnicity and gender of owners, 2007

	All firms		Employer firms	
	Construction	Professional, scientific & technical services	Construction	Professional, scientific & technical services
Nevada				
African American	$457	$42	$3,250	$209
Asian American	$152	$114	$668	$574
Hispanic American	$542	$108	$3,025	$520
American Indian and Alaska Native	$1,717	$287	$4,045	$1,701
Native Hawaiian and other Pacific Islander	N/A	$357	N/A	$944
Non-Hispanic White	$1,523	$235	$3,855	$861
Female	$936	$108	$2,417	$487
Male	$1,611	$311	$4,563	$1,049
United States				
African American	$107	$78	$1,069	$717
Asian American	$273	$201	$1,533	$950
Hispanic American	$167	$121	$1,083	$693
American Indian and Alaska Native	$262	$116	$1,390	$630
Native Hawaiian and other Pacific Islander	$363	$187	$1,628	$1,148
Non-Hispanic White	$502	$213	$1,850	$869
Female	$361	$98	$1,625	$543
Male	$480	$276	$2,008	$1,031

Notes: Does not include publicly-traded companies or other businesses not classifiable by race/ethnicity and gender. As sample sizes are not reported, statistical significance of these results cannot be determined. Estimates for Native Hawaiian and other Pacific Islander-owned businesses in the Nevada construction industry were suppressed by the SBO because publication standards were not met.

Source: 2007 Survey of Business Owners, part of the U.S. Census Bureau's 2007 Economic Census.

Construction. In the Nevada construction industry, average 2007 receipts for most minority-owned businesses were lower than the average for non-Hispanic white-owned businesses ($1.5 million). Results for all businesses (i.e., employer and non-employer businesses combined) indicate that:

- Average receipts of African American-owned construction businesses ($457,000) were 30 percent that of non-Hispanic white-owned Nevada construction businesses.
- Average receipts of Asian American-owned construction businesses ($152,000) were only 10 percent that of non-Hispanic white-owned construction businesses in Nevada.
- Hispanic-owned construction businesses ($542,000) exhibited revenues that were 36 percent of the average of non-Hispanic white-owned businesses.
- Average receipts of American Indian and Alaska Native-owned construction businesses ($1.7 million) were higher than non-Hispanic white-owned construction businesses.

Average receipts for women-owned construction businesses in Nevada ($936,000) were 58 percent of the average for male-owned businesses ($1.6 million).

SBO data indicated that average receipts were higher for construction employer businesses than for all construction businesses (i.e., employer and non-employer businesses combined). Average receipts for African American-, Asian American-, and Hispanic American-owned construction employer businesses were still less than that of non-Hispanic white-owned construction employer businesses ($3.9 million). Average receipts for women-owned construction employer businesses ($2.4 million) were less than the average of male-owned employer businesses ($4.6 million).

Professional, scientific, and technical services. In the Nevada professional, scientific, and technical services industry, African American-, Asian American-, and Hispanic-owned businesses had lower average receipts than non-Hispanic white-owned businesses. Results for all businesses (i.e., employer and non-employer businesses combined) in the professional, scientific, and technical services industry indicated that:

- Average receipts of African American-owned businesses ($42,000) were 18 percent that of non-Hispanic white-owned businesses ($235,000).
- Average receipts of Asian American-owned businesses ($114,000) were approximately half that of non-Hispanic white-owned businesses.
- Average receipts of Hispanic American-owned ($108,000) were 46 percent that of non-Hispanic white-owned businesses.
- Average receipts of American Indian and Alaska Native- ($287,000) and Native Hawaiian- ($357,000) owned businesses were higher than average receipts of non-Hispanic white-owned businesses.
- Average receipts of women-owned businesses in the Nevada professional, scientific, and technical services industry ($108,000) were 35 percent that of male-owned businesses ($311,000).

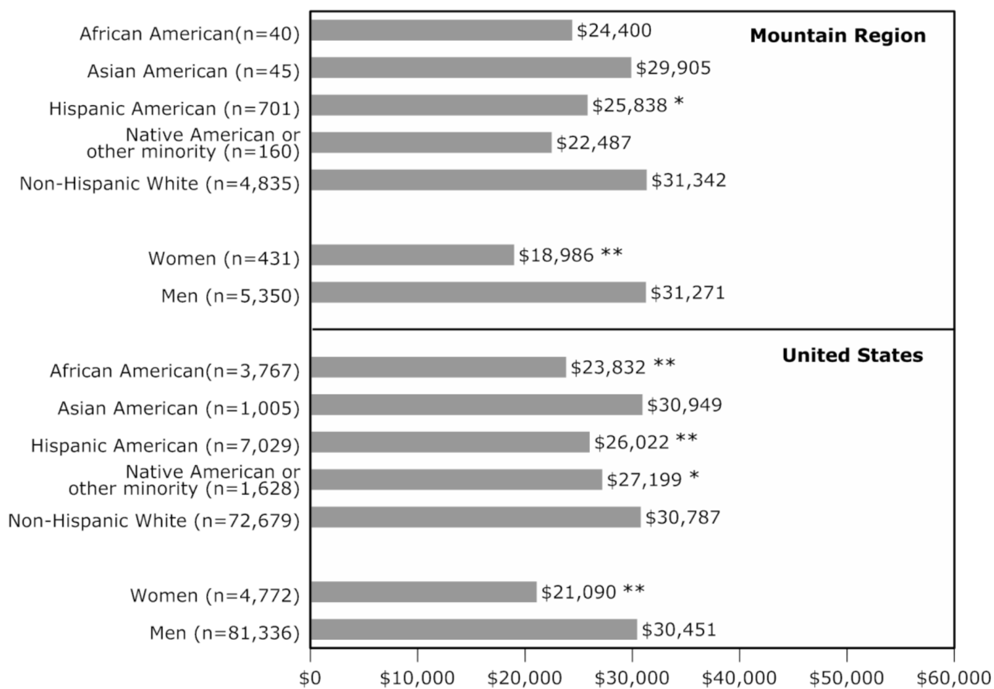
An examination of only employer businesses in professional, scientific, and technical services showed similar results.

Business earnings. In order to assess the success of self-employed minorities and women in the transportation contracting industry, the study team examined earnings of business owners using Public Use Microdata Series (PUMS) data from the 2000 U.S. Census and 2009-2011 ACS. The study team analyzed earnings of incorporated and unincorporated business owners age 16 and older who reported positive business earnings. Due to small sample sizes at the state level, results are shown for the Mountain Census Division (referred to throughout this report as the Mountain region) which contains Nevada, Arizona, Colorado, Idaho, Montana, New Mexico, Utah and Wyoming.

Construction business owner earnings, 1999. Figure H-23 shows average earnings in 1999 for business owners in the construction industry in Nevada and in the United States. Due to small sample sizes for individual racial/ethnic groups, the study team grouped Asian-Pacific American and Subcontinent Asian American business owners into a single Asian American category and grouped Native American and "other race minority" business owners together. Business earning results for 1999 were based on the 2000 Census, in which individuals were asked to give their business income for the previous year. Results indicated that:

- On average, Hispanic American construction business owners in the Mountain region earned less ($25,838) than non-Hispanic white construction business owners ($31,342). This difference was statistically significant at the 90 percent confidence level.
- African American, Asian American and Native American business owners also earned less than non-Hispanic white business owners but those differences were not statistically significant, in part due to small sample sizes.
- Female construction business owners in the Mountain region earned substantially less, on average ($18,986), than male construction business owners ($31,271).

Figure H-23.
Mean annual business owner earnings in the construction industry, 1999, the Mountain region and the U.S.



Note: The sample universe is business owners age 16 and over who reported positive earnings. All amounts in 1999 dollars.
*,** Denotes statistically significant differences from non-Hispanic whites (for minority groups) or from men (for women)
at the 90% and 95% confidence level, respectively.

Source: BBC Research & Consulting from 2000 U.S. Census 5% sample. The raw data extract was obtained through the IPUMS program of the MN Population Center: http://usa.ipums.org/usa/.

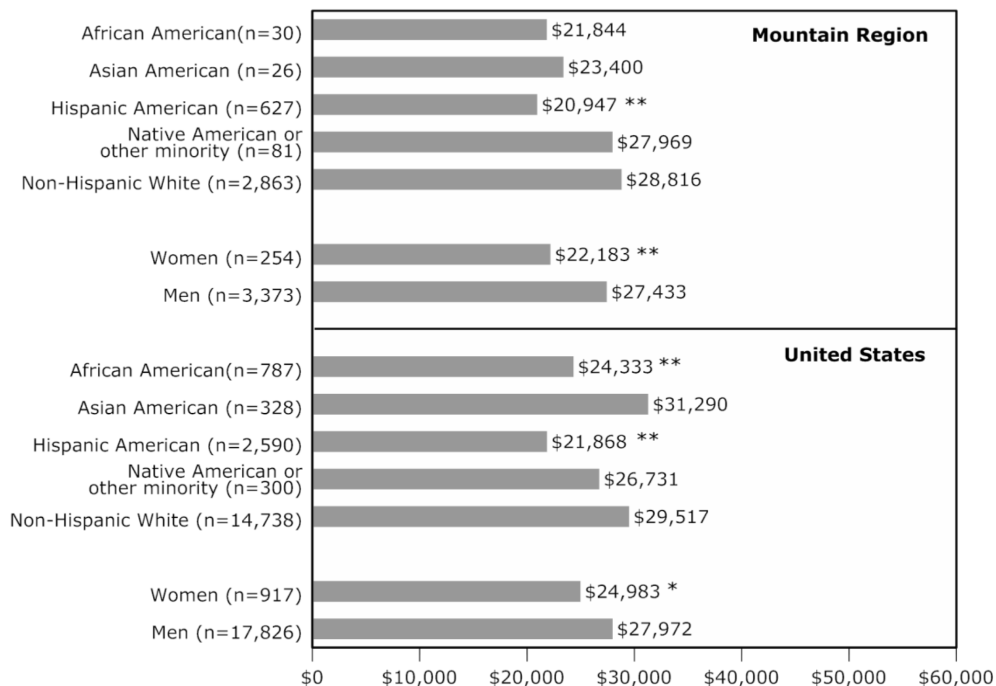
Construction business owner earnings, 2008-2011. The 2009-2011 ACS also reports business owner earnings. Because of the way that the U.S. Census Bureau conducts each year's ACS, earnings for business owners reported in the 2009 through 2011 sample were for the previous 12 months between 2008 and 2011.[20] However, all dollar amounts are presented in 2011 dollars.

[20] For example, if a business owner completed the survey on January 1, 2009, the figures for the previous 12 months would reference January 1, 2008 to December 31, 2008. Similarly, a business owner completing the survey December 31, 2011 would reference amounts since January 1, 2011.

Figure H-24 shows earnings in 2008 through 2011 for business owners in the construction industry in the Mountain region and the nation as a whole. Again, due to sample sizes for individual minority groups, Asian Pacific Americans and Subcontinent Asian Americans were combined into a single Asian American category and "other race minorities" were combined with Native Americans.

- On average, Hispanic American construction business owners in the Mountain region earned less in 2008-2011 ($20,947) than non-Hispanic white construction business owners ($28,816), a statistically significant difference.
- African American and Asian American business owners also earned substantially less than non-Hispanic white business owners in 2008-2011 but those differences were not statistically significant, in part due to small sample sizes.
- Female construction business owners in the Mountain region earned substantially less, on average ($22,183), than male construction business owners ($27,433), a statistically significant difference.

Figure H-24.
Mean annual business owner earnings in the construction industry, 2008 through 2011, the Mountain region and the U.S.



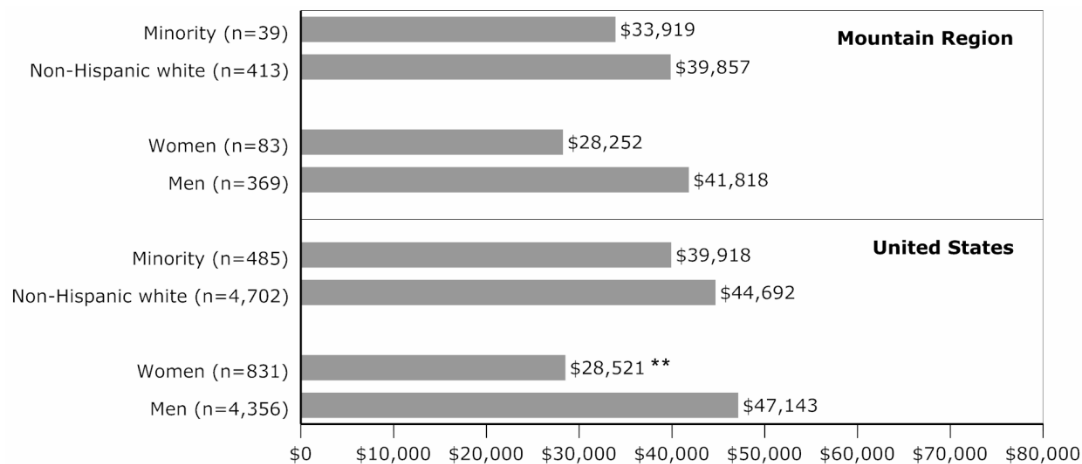
Note: The sample universe is business owners age 16 and over who reported positive earnings. All amounts in 2010 dollars. *,** Denotes statistically significant differences from non-Hispanic whites (for minority groups) or from men (for women) at the 90% and 95% confidence level, respectively.

Source: BBC Research & Consulting from 2009-2011 ACS. The raw data extract was obtained through the IPUMS program of the MN Population Center: http://usa.ipums.org/usa/.

Engineering business owner earnings, 1999. Figure H-25 presents average earnings in 1999 for business owners in the engineering industry in the Mountain region and the United States. Those results are based on the 2000 Census. Due to small sample sizes for individual racial/ethnic groups, the study team grouped all minority business owners together.

- Minority engineering business owners in the Mountain region had average earnings below that of non-Hispanic whites in 1999; however, those differences were not statistically significant in part due to small sample sizes.
- Female engineering business owners in the Mountain region ($28,522) earned substantially less than male business owners ($41,818) in 1999. The difference was not statistically significant.

Figure H-25.
Mean annual business owner earnings in the engineering industry, 1999, the Mountain region and the U.S.



Note: The sample universe is business owners age 16 and over who reported positive earnings. All amounts in 1999 dollars.
** Denotes statistically significant differences from non-Hispanic whites (for minority groups) or from men (for women) at
the 90% and 95% confidence level, respectively.

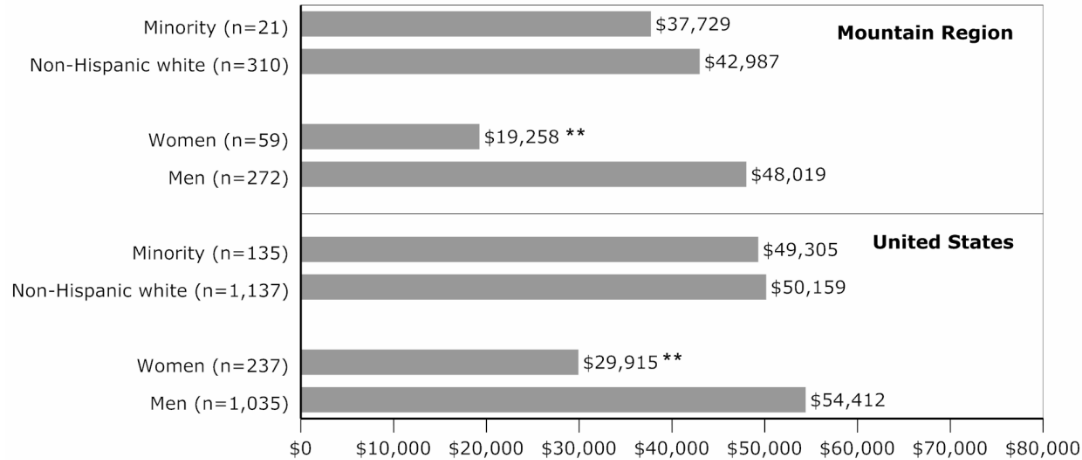
Source: BBC Research & Consulting from 2000 U.S. Census 5% sample. The raw data extract was obtained through the IPUMS program
of the MN Population Center: http://usa.ipums.org/usa/.

Engineering business owner earnings, 2008-2011. As with earnings data for the construction industry, earnings for engineering business owners that were reported in the 2009-2011 ACS data were for the time period between 2008 and 2011. All dollar amounts are presented in 2011 dollars. Again, due to small sample sizes, all minority business owners were combined into a single minority category. Results are for the Mountain region. Those results are displayed in Figure H-26.

- Similar to 1999, minority business owners earned less, on average, than non-minority business owners in both the Mountain region in 2008 through 2011 but that difference was not statistically significant.
- Average earnings for female engineering business owners were significantly lower than for male business owners in the Mountain region in 2008 through 2011.

The study team observed statistically significant differences between female and male engineering business owners in the Mountain region in 2008 through 2011. In the Mountain region, average earnings for female business owners were $19,258 compared to $48,019 for male business owners.

Figure H-26.
Mean annual business owner earnings in the engineering industry, 2008 through 2011, the Mountain region and the U.S.



Note: The sample universe is business owners age 16 and over who reported positive earnings. All amounts in 2011 dollars.
** Denotes statistically significant differences from non-Hispanic whites (for minority groups) or from men (for women) at the
90% and 95% confidence level, respectively.

Source: BBC Research & Consulting from 2008-2010 ACS. The raw data extract was obtained through the IPUMS program of the MN
Population Center: http://usa.ipums.org/usa/.

Regression analyses of business earnings. Differences in business earnings among different racial/ethnic and gender groups may be at least partially attributable to race- and gender-neutral factors such as age, marital status, and educational attainment. The study team performed regression analyses using 2009-2011 ACS data to examine whether there were differences in business earnings between minorities and non-Hispanic whites and between women and men after statistically controlling for certain race- and gender-neutral factors.

The study team applied an ordinary least squares regression model to the data that was very similar to models reviewed by courts after other disparity studies.[21] The dependent variable in the model was the natural logarithm of business earnings. Business owners that reported zero or negative business earnings were excluded, as were observations for which the U.S. Census Bureau had imputed values of business earnings. Along with variables for the race/ethnicity and gender of business owners, the model also included available measures from the data considered likely to affect earnings potential, including age, age-squared, marital status, ability to speak English well, disability condition, and educational attainment.

[21] For example, National Economic Research Associates, Inc. 2000. *Disadvantaged Business Enterprise Availability Study.* Prepared for the Minnesota Department of Transportation; and National Economic Research Associates, Inc. 2004. *Disadvantaged Business Enterprise Availability Study.* Prepared for the Illinois Department of Transportation.

Due to small sample sizes at the state level, the study team created models for the Mountain region that included separate terms to account for the effect of business locations in Nevada. Those terms included an indicator variable for location and interaction variables that indicated minority or female business owners in the state. That approach was similar to those used by other researchers.

The study team developed two regression models:

- A model for business owner earnings in 2008 through 2011 for the Mountain region construction industry that included 2,808 observations; and
- A model for business owner earnings in 2008 through 2011 for the Mountain region engineering industry that included 288 observations.

Construction industry in the Mountain region, 2008 through 2011. Figure H-27 presents the results of the regression model for 2008 through 2011 business earnings in the Mountain region construction industry. The model indicated that several race- and gender-neutral factors significantly predicted earnings of business owners in the Nevada construction industry:

- Being older was associated with higher business earnings (with additional age having less of an effect for older individuals);
- Being married was associated with higher business earnings;
- Having a disability was associated with lower business earnings; and
- Having a college degree was associated with higher business earnings than having only a high school diploma or equivalent.

Results for race/ethnicity and gender were:

- After accounting for race- and gender neutral factors, the model suggested that there were negative effects for certain racial groups, but none were statistically significant; and
- Being female was associated with lower business earnings and that effect was statistically significant.

The indicator variable for business owners in Nevada and the interaction variables for minority and women business owners in Nevada were not statistically significant. That result indicates that earnings for minority and female business owners in Nevada are not significantly different from the Mountain region as a whole after controlling for other factors.

Figure H-27.
Mountain region construction business owner earnings model, 2008-2011

Note:

*,** Denotes statistical significance at the 90% and 95% confidence level, respectively.

Source:

BBC Research & Consulting from 2009-2011 ACS. The raw data extract was obtained through the IPUMS program of the MN Population Center: http://usa.ipums.org/usa/.

Variable	Coefficient
Constant	5.479 **
Age	0.169 **
Age-squared	-0.002 **
Married	0.428 **
Speaks English well	0.277
Disabled	-0.541 **
Less than high school	-0.099
Some college	0.121
Four-year degree	0.285 *
Advanced degree	0.363
African American	-0.782
Asian American	0.182
Hispanic American	-0.116
Native American or other minority	-0.330
Female	-0.345 *
Nevada	-0.435
Minority in Nevada	0.555
Female in Nevada	-0.289

Engineering industry in the Mountain region, 2008 through 2011. Figure H-28 presents the results of the regression model of business owner earnings in the Mountain region engineering industry in 2008 through 2011. According to the model, having an advanced degree was associated with higher business earnings in the engineering industry but no other race- and gender-neutral factors were statistically significant.

After statistically controlling for race- and gender-neutral factors, the study team observed that:

- Effects of race/ethnicity were not statistically significant.[22]
- Being female was associated with lower business earnings in the Mountain region engineering industry (a statistically significant effect), but female owners of engineering companies in Nevada earned more than others in the Mountain region (also a statistically significant effect).

[22] The interaction variable for minority business owners in Nevada was dropped from the regression due to the very small sample size of Nevada minority business owners reporting positive earnings.

Figure H-28.
Mountain region engineering industry business owner earnings model, 2008-2011

Note:

*,** Denotes statistical significance at the 90% and 95% confidence level, respectively.

Source:

BBC Research & Consulting from 2009-2011 ACS. The raw data extract was obtained through the IPUMS program of the MN Population Center: http://usa.ipums.org/usa/.

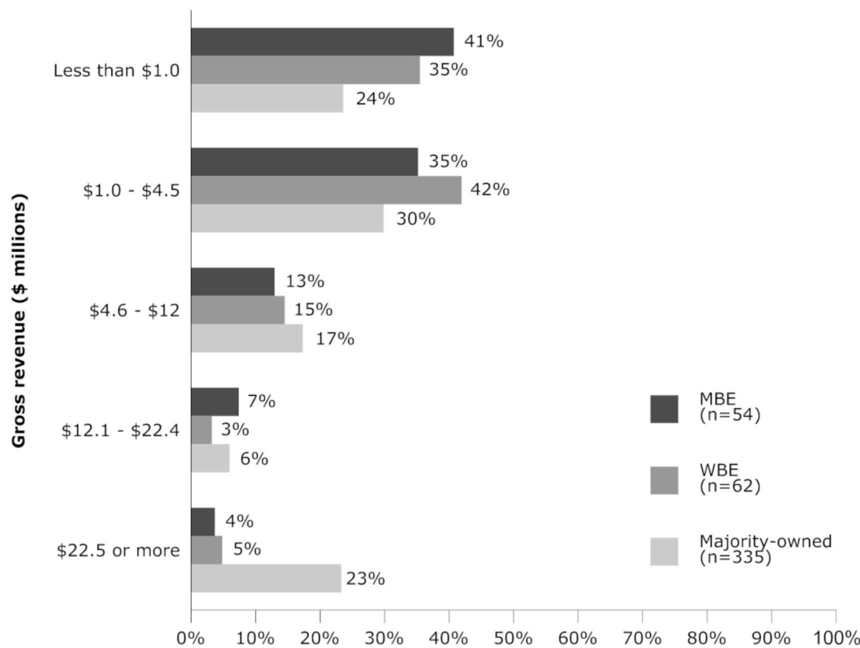
Variable	Coefficient
Constant	5.763 **
Age	0.086
Age-squared	-0.001
Married	0.300
Speaks English well	0.860
Disabled	-0.409
Less than high school	0.599
Some college	0.583
Four-year degree	0.870
Advanced degree	1.455 **
Minority	0.656
Female	-0.572 *
Nevada	0.326
Minority in Nevada	–
Female in Nevada	1.790 *

Gross revenue of construction and engineering firms from availability interviews. In the availability telephone interviews that Keen Independent conducted for the study, firm owners and managers were asked to identify the size range of their average annual gross revenue across all Nevada locations in the previous three years. Within the Nevada contracting industry, the study team separately examined gross revenue of construction and engineering businesses.

Construction. Figure H-29 presents the reported annual revenue for MBEs, WBEs, and majority-owned construction businesses.

- A larger percentage of MBEs (41%) and WBEs (35%) than majority-owned businesses (24%) reported average revenue of less than $1 million per year.
- A relatively small proportion of MBEs and WBEs reported average revenue of $4.6 million or more per year (24% of MBEs and 23% of WBEs) compared with majority-owned businesses (46%).

Figure H-29.
Gross revenue of company for all Nevada locations, construction industry



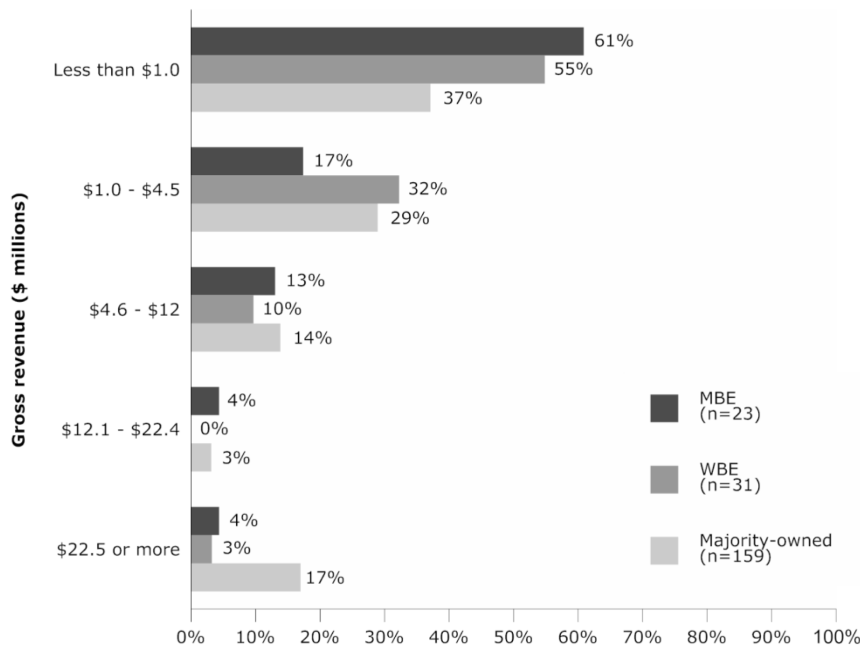
Note: WBE is white women-owned firms.

Source: Keen Independent Research from 2013 Availability Interviews.

Engineering. Engineering businesses were also asked to report gross revenue across all Nevada locations. Figure H-30 presents those results.

- Relatively more MBEs (61%) and WBEs (55%) reported average revenue of less than $1 million per year than majority-owned businesses (37%).
- A smaller proportion of MBEs (21%) and WBEs (13%) reported average revenue of at least $4.6 million, compared to majority-owned businesses (34%).

Figure H-30.
Gross revenue of company for all Nevada locations, engineering industry



Note: WBE is white women-owned firms.

Source: Keen Independent Research from 2013 Availability Interviews.

Availability Interview Results Concerning Potential Barriers

As part of the availability interviews with Nevada businesses completed in the disparity study, the study team asked firm owners and managers if they had experienced barriers or difficulties associated with starting or expanding a business. Keen Independent asked if:

- The size of projects had presented a barrier to bidding;
- The firm had experienced difficulties learning about bid opportunities with NDOT;
- The firm had experienced difficulties learning about bid opportunities with local governments or private companies;
- The firm had experienced difficulties learning about subcontracting opportunities in Nevada; and if
- The prequalification process for NDOT work had presented difficulties for the firm.

The study team analyzed responses from construction, supply and engineering-related firms. No significant differences in responses between firm types were identified so responses are combined.

- MBEs and WBEs were more likely than majority-owned firms to report that the size of projects had been a barrier to bidding.

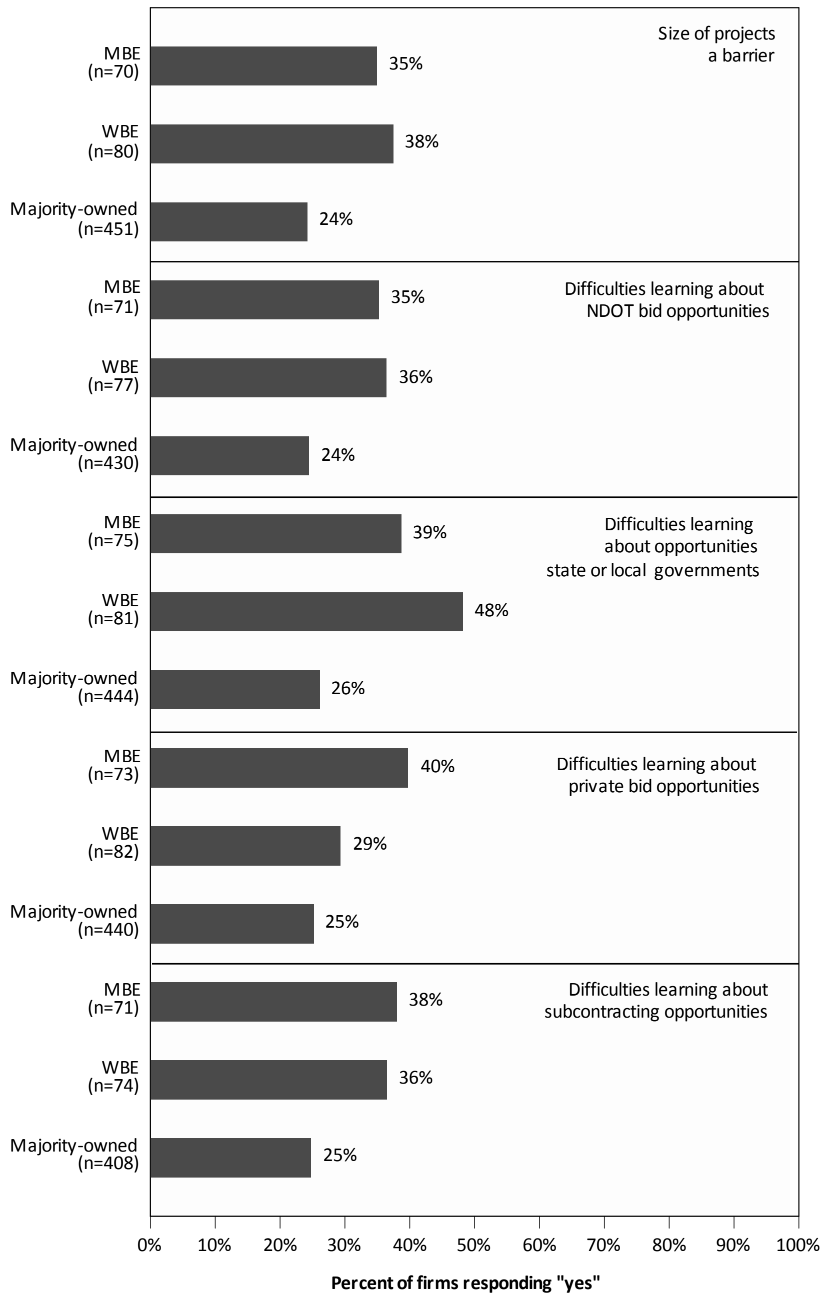
- MBEs and WBEs were also more likely than majority-owned firms to report difficulties learning about:

  - NDOT bid opportunities;
  - Local government bid opportunities;
  - Private sector bid opportunities; and
  - Subcontracting opportunities.

- Among firms that had looked into or applied for prequalification for NDOT contracts, MBEs appeared to be slightly more likely than majority-owned firms to report difficulties with the prequalification process.

Figure H-31 on the following page summarizes responses to these questions. Responses for construction, supply and engineering-related firms have been combined.

Figure H-31.
Responses to 2013 availability interview questions from Nevada MBE, WBE and majority-owned construction and engineering-related firms



Note: "WBE" represents white women-owned firms, "MBE" represents minority-owned firms and "Majority-owned" represents non-Hispanic white male-owned firms.

Source: Keen Independent Research from 2013 Availability Interviews.

Effects that barriers have on business success in the Nevada marketplace. Disparities regarding business success may affect outcomes for minority- and women-owned firms in Nevada.

- Analyses suggest that, in general, MBE/WBE firms may be less successful than majority-owned firms in Nevada. Differences in business success have manifested themselves in higher closure rates for certain MBE groups, potentially reducing overall MBE availability in the Nevada marketplace.

- Lower business receipts and earnings for certain MBE/WBE groups may make it difficult for existing MBE/WBE firms to obtain the resources to effectively compete for transportation construction and engineering contracts, particularly high dollar value contracts. Such limitations may reduce overall MBE/WBE utilization in the Nevada marketplace.

- In telephone interviews with businesses in the Nevada transportation contracting industry, minority- and women-owned firms were more likely than majority-owned firms to report difficulties learning about bidding opportunities. MBEs and WBEs were also more likely to indicate that size of project presented a barrier to bidding.

Because of the nature of the data pertaining to business success, it is difficult to quantify the effect that associated barriers may have had on NDOT availability and utilization during the study period.

Summary

The study team used the 2010 SBA study of minority business dynamics to examine business closures, expansions, and contractions. That study found that, between 2002 and 2006, 29 percent of non-publicly held U.S. businesses had expanded their employment, 24 percent had contracted their employment, and 30 percent had closed. In Nevada:

- African American-owned businesses were more likely than white-owned businesses to close. African American-owned businesses were less likely to expand but also less likely to contract than white-owned businesses.
- Hispanic American-owned businesses were more likely to close and more likely to contract than white-owned businesses. However, Hispanic American-owned businesses were slightly more likely to expand than white-owned businesses.
- Asian American-owned businesses were more likely to close and less likely to expand than white-owned businesses. However, they were also less likely to contract than white-owned businesses and other firms.

The study team examined several different datasets to analyze business receipts and earnings for businesses in Nevada.

- Analysis of 2007 data indicated that, in Nevada, average receipts for African American-, Asian American-, Hispanic American- and women-owned businesses were lower compared to those of non-Hispanic white- and male-owned businesses in the construction industry.
- Those data also indicated that, in Nevada, average receipts for African American-, Asian American-, Hispanic American- and women-owned businesses were lower compared to those of all businesses in the professional, scientific, and technical services industry.

- Regression analyses using U.S. Census Bureau data for business owner earnings indicated that there were statistically significant effects of gender on business earnings, after statistically controlling for certain gender-neutral factors:
  - Being female was associated with lower business earnings in the Mountain region construction industry in 2008-2011; and
  - Being female was associated with lower business earnings in the Mountain region engineering industry in 2008-2011 but not in Nevada.
- Availability interview data indicated lower revenue for MBEs and WBEs than majority-owned firms for both construction and engineering:
- The study team also analyzed revenue data for businesses in the Nevada transportation contracting industry collected as part of the disparity study's availability interviews. MBEs and WBEs were more likely than majority-owned firms to report that the size of projects had been a barrier to bidding and reported difficulties learning about NDOT bid opportunities, local government bid opportunities, private sector bid opportunities, and subcontracting opportunities.

APPENDIX I.
Description of Data Sources for Marketplace Analyses

To perform the marketplace analyses presented in Appendices E through H, BBC Research & Consulting, part of the Keen Independent Research study team, used data from a range of sources, including:

- U.S. Census Bureau Public Use Microdata Samples (PUMS) from the 1980 and 2000 Census;
- U.S. Census Bureau PUMS data from the 2009-2011 three-year American Community Survey (ACS);
- The Federal Reserve Board's 2003 Survey of Small Business Finances (SSBF);
- The 2007 Survey of Business Owners (SBO), conducted by the U.S. Census Bureau; and
- Home Mortgage Disclosure Act (HMDA) data provided by the Federal Financial Institutions Examination Council (FFIEC).

The following sections provide further detail on each data source, including how the study team used it in its quantitative marketplace analyses.

PUMS Data

Focusing on the construction and engineering industries, the study team used PUMS data to analyze:

- Demographic characteristics;
- Measures of financial resources;
- Educational attainment; and
- Self-employment (business ownership).

PUMS data offer several features ideal for the analyses reported in this study, including historical cross-sectional data, stratified national and state-level samples, and large sample sizes that enable many estimates to be made with a high level of statistical confidence, even for subsets of the population (e.g., racial/ethnic and occupational groups).

The study team obtained selected Census and ACS data from the Minnesota Population Center's Integrated Public Use Microdata Series (IPUMS). The IPUMS program provides online access to customized, accurate datasets.[1] For the analyses contained in this report, the study team used the 1980 and 2000 Census 5 percent samples and the 2009-2011 ACS 1 percent and 3 percent samples.

2000 Census data. The 2000 U.S. Census 5 percent sample contains 14,081,466 observations. When applying the Census person-level population weights, the sample represents 281,421,906 people in the United States. The 2000 Nevada sub-sample contains 100,429 individual observations, weighted to represent 2,000,306 people.

Categorizing individual race/ethnicity. To define race/ethnicity for the 2000 Census dataset, the study team used the IPUMS race/ethnicity variables — RACED and HISPAN — to categorize individuals into one of seven groups:

- Non-Hispanic white;
- Hispanic American;
- African American;
- Asian-Pacific American;
- Subcontinent Asian American;
- Native American; and
- Other minority (unspecified).

An individual was considered "non-Hispanic white" if they did not report Hispanic ethnicity and indicated being white only — not in combination with any other race group. All self-identified Hispanics (based on the HISPAN variable) were considered Hispanic American, regardless of any other race or ethnicity identification. For the five other racial groups, an individual's race/ethnicity was categorized by the first (or only) race group identified in each possible race-type combination. The study team used a rank ordering methodology similar to that used in the 2000 Census data dictionary. An individual who identified multiple races was placed in the reported race category with the highest ranking in the study team's ordering. African American is first, followed by Native American, Asian-Pacific American, and then Subcontinent Asian American. For example, if an individual identified himself or herself as "Korean," that person was placed in the Asian-Pacific American category. If the individual identified himself or herself as "Korean" in combination with "Black," the individual was considered African American.

[1] Steven Ruggles, J. Trent Alexander, Katie Genadek, Ronald Goeken, Matthew B. Schroeder, and Matthew Sobek. *Integrated Public Use Microdata Series: Version 5.0* [Machine-readable database]. Minneapolis: University of Minnesota, 2011.

- The Asian-Pacific American category included the following race/ethnicity groups: Cambodian, Chamorro, Chinese, Filipino, Guamanian, Hmong, Indonesian, Japanese, Korean, Laotian, Malaysian, Samoan, Taiwanese, Thai, Tongan, and Vietnamese. This category also included other Polynesian, Melanesian, and Micronesian races, as well as individuals identified as Pacific Islanders.

- The Subcontinent Asian American category included these race groups: Asian Indian (Hindu), Bangladeshi, Pakistani, and Sri Lankan. Individuals who identified themselves as "Asian," but were not clearly categorized as Subcontinent Asian were placed in the Asian-Pacific American group.

- American Indian, Alaska Native, Native Hawaiian and Latin American Indian groups were considered Native American.

- If an individual was identified with any of the above groups and an "other race" group, the individual was categorized into the known category. Individuals identified as "other race" or "white and other race" were categorized as "other minority."

For some analyses — those in which sample sizes were small — the study team combined minority groups.

Business ownership. The study team used the Census detailed "class of worker" variable (CLASSWKD) to determine self-employment. Individuals were classified into eight categories.

- Self-employed for a non-incorporated business;
- Self-employed for an incorporated business;
- Wage or salary employee for a private firm;
- Wage or salary employee for a non-profit organization;
- Employee of the Federal government;
- Employee of a State government;
- Employee of a local government; or
- Unpaid family worker.

The study team counted individuals who reported being self-employed — either for an incorporated or a non-incorporated business — as business owners.

Study industries. The marketplace analyses focus on two study industries: construction and engineering-related services. The study team used the IND variable to identify individuals as working in one or the other industry. That variable includes several hundred industry and sub-industry categories. Figure I-1 identifies the IND codes used to define each study area for the 2000 Census analyses.

Figure I-1.
2000 Census industry codes used for construction and engineering-related services

Study industry	2000 Census IND codes	Description
Construction	77	Construction industry
Engineering-related services	729	Architectural, engineering and related services

Source: Keen Independent Research from the IPUMS program: http://usa.ipums.org/usa/.

Industry occupations. The study team also examined workers by occupation within the construction industry using the PUMS variable OCC. Figure I-2 summarizes the 2000 Census (and 2009-2011 ACS) OCC codes used in the study team's analyses.

Figure I-2.
2000 Census and 2009-2011 ACS occupation codes used to examine workers in construction

Census 2000 and 2009-2011 ACS occupational title and code	Job description
Construction managers 22	Plan, direct, coordinate, or budget, usually through subordinate supervisory personnel, activities concerned with the construction and maintenance of structures, facilities, and systems. Participate in the conceptual development of a construction project and oversee its organization, scheduling, and implementation. Include specialized construction fields, such as carpentry or plumbing. Include general superintendents, project managers, and constructors who manage, coordinate, and supervise the construction process.
First-line supervisors/managers of construction trades and extraction workers 620	Directly supervise and coordinate the activities of construction or extraction workers.
Brickmasons, blockmasons and stonemasons 622	Lay and bind building materials, such as brick, structural tile, concrete block, cinder block, glass block, and terra-cotta block, Construct or repair walls, partitions, arches, sewers, and other structures. Build stone structures, such as piers, walls, and abutments and lay walks, curbstones, or special types of masonry for vats, tanks, and floors.
Carpenters 623	Construct, erect, install, or repair structures and fixtures made of wood, such as concrete forms, building frameworks, including partitions, joists, studding, rafters, wood stairways, window and door frames, and hardwood floors.
Carpet, floor, and tile installers and finishers 624	Apply shock-absorbing, sound-deadening, or decorative coverings to floors. Lay carpet on floors and install padding and trim flooring materials. Scrape and sand wooden floors to smooth surfaces, apply coats of finish. Apply hard tile, marble, wood tile, walls, floors, ceilings, and roof decks.

Figure I-2 (continued).
2000 Census and 2009-2011 ACS occupation codes used to examine workers in construction

Census 2000 and 2009-2011 ACS occupational title and code	Job description
Cement masons, concrete finishers and terrazzo workers 625	Smooth and finish surfaces of poured concrete, such as floors, walks, sidewalks, or curbs using a variety of hand and power tools. Align forms for sidewalks, curbs or gutters; patch voids; use saws to cut expansion joints. Terrazzo workers apply a mixture of cement, sand, pigment or marble chips to floors, stairways, and cabinet fixtures.
Construction laborers 626	Perform tasks involving physical labor at building, highway, and heavy construction projects, tunnel and shaft excavations, and demolition sites. May operate hand and power tools of all types: air hammers, earth tampers, cement mixers, small mechanical hoists, surveying and measuring equipment, and a variety of other equipment and instruments. May clean and prepare sites, dig trenches, set braces to support the sides of excavations, erect scaffolding, clean up rubble and debris, and remove asbestos, lead, and other hazardous waste materials. May assist other craft workers. Exclude construction laborers who primarily assist a particular craft worker, and classify them under "Helpers, Construction Trades."
Paving, surfacing and tamping equipment operators 630	Operate equipment used for applying concrete, asphalt, or other materials to road beds, parking lots, or airport runways and taxiways, or equipment used for tamping gravel, dirt, or other materials. Include concrete and asphalt paving machine operators, form tampers, tamping machine operators, and stone spreader operators.
Miscellaneous construction equipment operators, including pile-driver operators 632	Operate one or several types of power construction equipment, such as motor graders, bulldozers, scrapers, compressors, pumps, derricks, shovels, tractors, or front-end loaders to excavate, move, and grade earth, erect structures, or pour concrete or other hard surface pavement. Operate pile drivers mounted on skids, barges, crawler treads, or locomotive cranes to drive pilings for retaining walls, bulkheads, and foundations of structures, such as buildings, bridges, and piers.
Drywall installers, ceiling tile installers and tapers 633	Apply plasterboard or other wallboard to ceilings or interior walls of buildings, mount acoustical tiles or blocks, strips, or sheets of shock-absorbing materials to ceilings and walls of buildings to reduce or reflect sound.
Electricians 635	Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service street lights, intercom systems, or electrical control systems. Exclude "Security and Fire Alarm Systems Installers." The 2000 category includes electrician apprentices.

Figure I-2 (continued).
2000 Census and 2009-2011 ACS occupation codes used to examine workers in construction

Census 2000 and 2009-2011 ACS occupational title and code	Job description
Glaziers 636	Install glass in windows, skylights, store fronts, display cases, building fronts, interior walls, ceilings, and tabletops.
Painters, construction and maintenance 642	Paint walls, equipment, buildings, bridges, and other structural surfaces, using brushes, rollers, and spray guns. Remove old paint to prepare surfaces prior to painting and mix colors or oils to obtain desired color or consistency.
Pipelayers, plumbers, pipefitters and steamfitters 644	Lay pipe for storm or sanitation sewers, drains, and water mains. Perform any combination of the following tasks: grade trenches or culverts, position pipe, or seal joints. Excludes "Welders, Cutters, Solderers, and Brazers." Assemble, install, alter, and repair pipelines or pipe systems that carry water, steam, air, or other liquids or gases. May install heating and cooling equipment and mechanical control systems. Includes sprinklerfitters.
Plasterers and stucco masons 646	Apply interior or exterior plaster, cement, stucco, or similar materials and set ornamental plaster.
Roofers 651	Cover roofs of structures with shingles, slate, asphalt, aluminum, and wood. Spray roofs, sidings, and walls with material to bind, seal, insulate, or soundproof sections of structures.
Iron and steel workers, including reinforcing iron and rebar workers 653	*Iron and steel workers* raise, place, and unite iron or steel girders, columns, and other structural members to form completed structures or structural frameworks. May erect metal storage tanks and assemble prefabricated metal buildings. *Reinforcing iron and rebar workers* position and secure steel bars or mesh in concrete forms in order to reinforce concrete. Use a variety of fasteners, rod-bending machines, blowtorches, and hand tools. Include rod busters.
Helpers, construction trades 660	All construction trades helpers not listed separately.

Figure I-2 (continued).
2000 Census and 2009-2011 ACS occupation codes used to examine workers in construction

Census 2000 and 2009-2011 ACS occupational title and code	Job description
Driver/sales workers and truck drivers 913	*Driver/sales workers* drive trucks or other vehicles over established routes or within an established territory and sell goods, such as food products, including restaurant take-out items, or pick up and deliver items, such as laundry. May also take orders and collect payments. Include newspaper delivery drivers. *Truck drivers (heavy)* drive a tractor-trailer combination or a truck with a capacity of at least 26,000 GVW, to transport and deliver goods, livestock, or materials in liquid, loose, or packaged form. May be required to unload truck. May require use of automated routing equipment. Requires commercial drivers' license. *Truck drivers (light)* drive a truck or van with a capacity of under 26,000 GVW, primarily to deliver or pick up merchandise or to deliver packages within a specified area. May require use of automatic routing or location software. May load and unload truck. Exclude "Couriers and Messengers."
Crane and tower operators 951	Operate mechanical boom and cable or tower and cable equipment to lift and move materials, machines, or products in many directions. Exclude "Excavating and Loading Machine and Dragline Operators."
Dredge, excavating and loading machine operators 952	*Dredge operators* operate dredge to remove sand, gravel, or other materials from lakes, rivers, or streams; and to excavate and maintain navigable channels in waterways. *Excavating and loading machine and dragline operators* Operate or tend machinery equipped with scoops, shovels, or buckets, to excavate and load loose materials. *Loading machine operators, underground mining*, Operate underground loading machine to load coal, ore, or rock into shuttle or mine car or onto conveyors. Loading equipment may include power shovels, hoisting engines equipped with cable-drawn scraper or scoop, or machines equipped with gathering arms and conveyor.

Source: 2000 Census occupational titles and codes at http://usa.ipums.org/usa/volii/00occup.shtml, 1980, job descriptions from the Bureau of Labor Statistics www.bls.gov.

Education variables. The study team used the variable indicating respondents' highest level of educational attainment (EDUCD) to classify individuals into four categories:[2]

- Less than high school;
- High school diploma;
- Some college or associate's degree; and
- At least a bachelor's degree.

Definition of workers. The universe for the class of worker, industry, and occupation variables includes workers 16 years of age or older who are "gainfully employed" and those who are unemployed but seeking work. "Gainfully employed" means that the worker reported an occupation as defined by the Census code OCC.

1980 Census data. The study team compared 2000 Census data with data for the 1980 Census to analyze changes in worker demographics, educational attainment, and business ownership over time. The 1980 Census five percent sample includes 11,343,120 observations weighted to represent 226,862,400 people. The sample includes 40,242 observations in Nevada, weighted to represent 804,840 individuals. A number of changes in variables and coding took place between the 1980 and 2000 Censuses.

Changes in race/ethnicity categories between censuses. Figure I-3 lists the seven study team-defined racial/ethnic categories with the corresponding 1980 and 2000 Census race groups. Combinations of race types are available in the 2000 Census but not in the 1980 Census. The U.S. Census Bureau introduced categories in 2000 representing a combination of race types to allow individuals to select multiple races when responding to the questionnaire.

For example, an individual who is primarily white with Native American ancestry could choose the "white and American Indian/Alaska Native" race group in 2000. However, if the same individual received the 1980 Census questionnaire, she would need to choose a single race group — either "white" or "American Indian/Alaska Native." Such a choice would ultimately depend on unknowable factors including how strongly the individual identifies with her Native American heritage.

[2] In the 1940-1980 samples, respondents were classified according to the highest year of school completed (HIGRADE). In the years after 1980, that method was used only for individuals who did not complete high school, and all high school graduates were categorized based on the highest degree earned (EDUC99). The EDUCD variable merges two different schemes for measuring educational attainment by assigning to each degree the typical number of years it takes to earn it.

In addition, data analysts do not have information about the proportions of individual ancestry in 2000 and can only know that a particular individual has mixed ancestry. The variability introduced by allowing multiple race selection complicates direct comparisons between Census years with respect to race/ethnicity. Despite those issues, 98 percent of survey respondents in 2000 indicated a single race.[3]

Business ownership. The study team uses the Census "class of worker" variable (CLASSWKD) to determine self-employment. That variable was the same for 1980 and 2000 with one exception: the 1980 variable did not include a separate category for individuals who work for a wage or salary at a non-profit organization.

Changes in industry codes between Censuses. The Census definitions of some industries and sub-industries changed between 1980 and 2000. As a result, the 1980 codes for the industry variable (IND) were not the same as the 2000 IND codes in all cases. However, for the construction and engineering-related industries, the 1980 codes corresponded directly to equivalent 2000 codes.

Geographic variables. For the analyses presented in the marketplace appendices, there were no substantial changes in geographic variables between then 1980 Census and 2000 Census. The study team used the same variable (STATEFIP) available for 2000 Census data to identify Nevada in the 1980 data.

Changes in educational variables between Censuses. The 1980 Census PUMS data included the same educational variable found in the 2000 Census data, although the questions used for each Census to capture educational attainment differed between the two surveys.[4]

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[3] Grieco, Elizabeth M. & Rachel C. Cassidy. "Overview of Race and Hispanic Origin," *Census 2000 Brief*, March 2001, page 3.

[4] For a more detailed explanation, see footnote 2.

Figure I-3.
Study team race/ethnic categories compared with Census race and Hispanic Origin survey questions, 1980 and 2000

Study team-defined race/ethnic categories	2000 Census	1980 Census
African American	**Hispanic origin:** no **Race:** Black/Negro alone or in combination with any other non-Hispanic group	**Hispanic origin:** no **Race:** Black/Negro
Asian-Pacific American	**Hispanic origin:** no **Race:** Chinese, Taiwanese, Japanese, Filipino, Korean, Vietnamese, Cambodian, Hmong, Laotian, Thai, Indonesian, Malaysian, Samoan, Tongan, Polynesian, Guamanian/Chamorro, Pacific Islander, Micronesian, Melanesian, or other Asian, either alone or in combination with any non-Hispanic, non-Black, or non-Native American groups	**Hispanic origin:** no **Race:** Chinese, Japanese, Filipino, Korean, Vietnamese, Pacific Islander or other Asian
Subcontinent Asian American	**Hispanic origin:** no **Race:** Asian Indian, Bangladeshi, Pakistani or Sri Lankan, alone or in combination with white or other groups only	**Hispanic origin:** no **Race:** Asian Indian
Hispanic American	**Hispanic origin:** yes **Race:** any race groups, alone or in combination with other groups	**Hispanic origin:** yes **Race:** any or **Hispanic origin:** no **Race:** Spanish
Native American	**Hispanic origin:** no **Race:** American Indian or Alaskan Native tribe or Native Hawaiian, identified alone or in combination with any non-Hispanic, non-Black group	**Hispanic origin:** no **Race:** American Indian/Alaska Native or Native Hawaiian
Other minority group	**Hispanic origin:** no **Race:** other race alone or in combination with white only	**Hispanic origin:** no **Race:** other race
Non-Hispanic white	**Hispanic origin:** no **Race:** white alone	**Hispanic origin:** no **Race:** white

Source: Keen Independent Research and BBC Research & Consulting from the IPUMS program: http://usa.ipums.org/usa/.

2009-2011 American Community Survey (ACS) data. The study team also examined 2009-2011 ACS data from IPUMS. The U.S. Census Bureau conducts the ACS which uses monthly samples to produce annually updated data for the same small areas as the 2000 Census long-form.[5] Since 2005, the ACS has expanded to a roughly 1 percent sample of the population, based on a random sample of housing units in every county in the U.S. (along with the District of Columbia and Puerto Rico). The 2009-2011 ACS three-year estimates represent the average characteristics over the three-year period of time.

For national calculations, the study team used the 1 percent ACS sample and for state calculations the study team used the 3 percent ACS sample. Applying the person-level population weights to the 3,068,522 observations included in the data, the 2009-2011 ACS dataset represents 309,703,908 people in the U.S. For Nevada, the 2009-2011 ACS dataset includes 79,068 observations representing 2,704,091 individuals. With the exception of a few minor differences, the variables available for the 2009-2011 ACS dataset are the same as those available for the 2000 Census 5 percent sample.

Changes in race/ethnicity categories between 2000 Census and 2009-2011 ACS data. The 2000 Census 5 percent sample and the 2009-2011 ACS PUMS data use essentially the same numerical categories for the detailed race variable (RACED). However, in both samples, any category representing fewer than 10,000 people was combined with another category. As a result, some PUMS race/ethnicity categories that occur in one sample may not exist in the other, which could lead to inconsistencies between the two samples once the detailed race/ethnicity categories are grouped according to the seven broader categories. That issue is likely to affect only a very small number of observations. PUMS race/ethnicity categories that were available in 2000 but not in 2009-2011 (or vice versa) represented a very small percentage of the 2000 and 2009-2011 populations. Categories for the Hispanic variable (HISPAN) remained consistent between the two datasets.

Other variables. Other variables that the study team used from the 2009-2011 ACS did not change between 2000 and 2009-2011. The variables CLASSWKD, LABFORCE, IND, OCC, PUMA, and EDUCD were consistent between datasets, with variable codes in each case representing the same categories.

Survey of Small Business Finances (SSBF)

The study team used the SSBF to analyze the availability and characteristics of small business loans. The SSBF, which the Federal Reserve Board conducts every five years, collects financial data from non-governmental for-profit firms with fewer than 500 employees. The survey uses a nationally representative sample, structured to allow for analysis of specific geographic regions, industry sectors, and racial and gender groups. The SSBF is unique as it provides detailed data on both firm and owner financial characteristics. For the purposes of this report, the study team used the survey from 2003, which is available at the Federal Reserve Board website.[6]

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[5] U.S. Census Bureau. *Design and Methodology: American Community Survey.* Washington D.C.: U.S. Government Printing 2009. Available at http://www.census.gov/acs/www/SBasics/desgn_meth.htm

[6] The Federal Reserve Board. *Survey of Small Business Finances, 2003.* Available online at http://www.federalreserve.gov/pubs/.

Categorizing owner race/ethnicity and gender. In the 2003 SSBF, businesses were able to give responses on owner characteristics for up to three different owners. The data also included a fourth variable that is a weighted average of other answers provided for each question. In order to define race/ethnicity and gender variables, the study team used the final weighted average for variables on owner characteristics. Definition of race and ethnic groups in the 2003 SSBF are slightly different than the classifications used in the 2000 Census and 2009-2011 ACS. In the SSBF, businesses are classified into the following five groups:

- Non-Hispanic white;
- Hispanic American;
- African American;
- Asian American;
- Native American; and
- Other (unspecified).

A business was considered Hispanic American-owned if more than 50 percent of the business was owned by Hispanic Americans, regardless of race. All businesses that reported 50 percent or less Hispanic American ownership were included in the racial group that owned more than half of the company. No firms reported the race/ethnicity of their owners as being "other." Similar to race, firms were classified as female-owned if more than 50 percent of the firm was owned by women. Firms owned half by women and half by men were classified as male-owned.

Defining selected industry sectors. In the 2003 SSBF, each business was classified according to SIC code and placed into one of seven industry categories:

- Construction;
- Mining;
- Transportation, communications, and utilities;
- Finance, insurance, and real estate;
- Trade;
- Engineering; or
- Services (excluding engineering).

Region variables. The SSBF divides the United States into nine Census Divisions. Along with Arizona, Colorado, Idaho, Montana, New Mexico, Utah and Wyoming, Nevada resides in the Mountain Census Division (referred to in marketplace appendices as the Mountain region).

Loan denial variables. In the 2003 survey, firm owners were asked if they have applied for a loan in the last three years and whether loan applications were always approved, always denied, or sometimes approved and sometimes denied. For the purposes of this study, only firms that were always denied were considered when analyzing loan denial.

Data reporting. Due to missing responses to survey questions in SSBF datasets, data were imputed to fill in missing values. The missing values in the 2003 data set were imputed using a different method than in previous studies. In the 1998 survey data, the number of observations in the data set matches the number of firms surveyed. However, the 2003 data includes five implicates, each with imputed values that have been filled in using a randomized regression model.[7] Thus, there are 21,200 observations in the 2003 data, five for each of the 4,240 firms surveyed. Across the five implicates, all non-missing values are identical, whereas imputed values may differ.

As discussed in a recent paper about the 2003 imputations by the Finance and Economics Discussion Series, missing survey values can lead to biased estimates and inaccurate variances and confidence intervals.[8] Those problems can be corrected through the use of multiple implicates. For summary statistics using 2003 SSBF data, the study team utilized all five implicates and included observations with missing values in the analyses. For the probit regression models presented in Appendix G, the study team used the first implicate and did not include observations with imputed values for the dependent variables.

Survey of Business Owners (SBO)

The study team used data from the 2007 SBO to analyze mean annual firm receipts. The SBO is conducted every five years by the U.S. Census Bureau. Data for the most recent publication of the SBO was collected in 2007. Response to the survey is mandatory, which ensures comprehensive economic and demographic information for business and business owners in the U.S. All tax-filing businesses and nonprofits were eligible to be surveyed, including firms with and without paid employees. In 2007, almost 8 million firms were surveyed. The study team examined SBO data relating to the number of firms, number of firms with paid employees, and total receipts. That information is available by geographic location, industry, gender and race/ethnicity.

The SBO uses the 2002 North American Industry Classification System (NAICS) to classify industries. The study team analyzed data for firms in all industries and for firms in selected industries that corresponded closely to construction and engineering-related services.

To categorize the business ownership of firms reported in the SBO, the Census Bureau uses standard definitions for women-owned and minority-owned businesses. A business is defined as female-owned if more than half of the ownership and control is by women. Firms with joint male-/female-ownership were tabulated as an independent gender category. A business is defined as minority-owned if more than half of the ownership and control is by African Americans, Asian Americans,

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[7] For a more detailed explanation of imputation methods, see the "Technical Codebook" for the *2003 Survey of Small Business Finances*.

[8] Lieu N. Hazelwood, Traci L. Mach and John D. Wolken. *Alternative Methods of Unit Nonresponse Weight Adjustments: An Application from the 2003 Survey of Small Businesses*. Finance and Economics Discussion Series Divisions of Research and Statistics and Monetary Affairs, Federal Reserve Board. Washington, D.C., 2007. http://www.federalreserve.gov/pubs/feds/2007/200710/200710pap.pdf

Hispanic Americans, Native Americans, or by another minority group. Respondents had the option of selecting one or more racial groups when reporting business ownership. The study team reported business receipts for the following race/ethnicity and gender groups:

- African Americans;
- Asian Americans;
- Hispanic Americans;
- Native Americans;
- Non-Hispanic whites;
- Men; and
- Women.

Home Mortgage Disclosure Act (HMDA) Data

The study team analyzed mortgage lending in Nevada and in the nation using HMDA data that the Federal Financial Institutions Examination Council (FFIEC) provides. HMDA data provide information on mortgage loan applications that financial institutions, savings banks, credit unions, and some mortgage companies receive. Those data include information about the location, dollar amount, and types of loans made, as well as race/ethnicity, income, and credit characteristics of loan applicants. Data are available for home purchase, home improvement, and refinance loans.

Financial institutions were required to report 2011 HMDA data if they had assets of more than $40 million ($35 million for 2006), had a branch office in a metropolitan area, and originated at least one home purchase or refinance loan in the reporting calendar year. Mortgage companies were required to report HMDA if they are for-profit institutions, had home purchase loan originations exceeding 10 percent of all loan obligations in the past year, were located in an MSA (or originated five or more home purchase loans in an MSA), and either had more than $10 million in assets or made at least 100 home purchase or refinance loans in the calendar year.

The study team used those data to examine loan denial rates and subprime lending rates for different racial and ethnic groups in 2006, 2009, and 2011. Note that the HMDA data represent the entirety of home mortgage loan applications reported by participating financial institutions in each year examined. Those data are not a sample. Appendix G provides a detailed explanation of the methodology that the study team used for measuring loan denial and subprime lending rates.

APPENDIX J.
QUALITATIVE INFORMATION FROM IN-DEPTH PERSONAL INTERVIEWS AND AVAILABILITY INTERVIEWS

Appendix J presents qualitative information that Keen Independent collected as part of in-depth personal interviews and availability interviews that the study team conducted as part of the disparity study. The appendix also includes comments from two public meetings NDOT held in July 2013 related to its program for state-funded contracts, and two public meetings held to receive comments on the disparity study held in October 2013. Appendix J is presented in 10 parts:

A. Introduction and Background describes the process for gathering and analyzing the information summarized in Appendix J. (page 2)

B. Background on the Transportation Contracting Industry in Nevada summarizes information about how businesses become established and how companies change over time. Part B also presents information about the effects of the economic downturn and business owners' experiences pursing public and private sector work. (page 3)

C. Doing Business as a Prime Contractor or as a Subcontractor summarizes information about the mix of businesses' prime contract and subcontract work and how they obtain that work. (page 20)

D. Keys to Business Success summarizes information about certain barriers to doing business and keys to success, including access to financing, bonding, and insurance (page 32)

E. Potential Barriers to Doing Business with Public Agencies presents information about potential barriers to doing work for public agencies, including NDOT. (page 45)

F. Other Allegations of Unfair Treatment presents information about any experiences with unfair treatment such as bid shopping, unfair treatment during performance of work, and allegations of unfavorable work environment for minorities and women. (page 73)

G. Additional Information Regarding any Racial/Ethnic- or Gender-based Discrimination includes topics such as stereotypical attitudes about minorities and women and allegations of a "good ol' boy" network that adversely affects opportunities for MBE/WBEs. (page 81)

H. Insights Regarding Business Assistance Programs, Changes in Contracting Processes or Any Other Neutral Measures presents information about business assistance programs, efforts to open contracting processes and other steps to remove barriers to all businesses or small business. (page 87)

I. Insights Regarding Race-/Ethnicity- or Gender-based Measures presents information about general comments about the Federal DBE Program, effects of discontinuing DBE contract goals in 2005, and any impacts of DBE contract goals on other businesses. (page 109)

J. DBE Certification presents information about the DBE certification process. It also presents information about advantages and disadvantages that subcontractors experience because of their certification as a DBE or MBE/WBE/SBE. (Page 122)

A. Introduction and Background

The Keen Independent study team conducted in-depth personal interviews and availability interviews in February through June 2013. In both the in-depth personal interviews and the availability interviews, business owners and managers had the opportunity to discuss their experiences working in the local transportation contracting industry; experiences working with NDOT and other public agencies; perceptions of the Federal DBE Program and other topics important to them.

In-depth personal interviews. The study team conducted in-depth personal interviews with 40 Nevada businesses, trade associations and a bonding/insurance company. The interviews included discussions about interviewees' perceptions and anecdotes regarding the local transportation contracting industry; the Federal DBE Program; and the contracting and procurement policies, practices, and procedures of NDOT. Keen Independent and MKJ Consulting, a Las Vegas-based woman-owned consulting firm, conducted in-depth interviews.

Interviewees included individuals representing construction businesses, engineering firms and trade associations. The study team identified interview participants primarily from a random sample of businesses that was stratified by business type, location, and the race/ethnicity and gender of business owner. The study team conducted most of the interviews with the owner, president, chief executive officer, or other officer of the business or association. Of the businesses that the study team interviewed, some work exclusively or primarily as prime contractors or subcontractors, and some work as both. All of the businesses conducted work in Nevada. All interviewees are identified in Appendix J by random interviewee numbers (i.e., #1, #2, #3, etc.).

Interviewees were often quite specific in their comments. As a result, in many cases, the study team has reported them in more general form to minimize the chance that readers could identify interviewees or other individuals or businesses that were mentioned in the interviews. The study team reports whether each interviewee represents a DBE-certified business and also reports the race/ethnicity and gender of the business owner.[1]

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[1] Note that "male" or "white" are sometimes not included as identifiers to simplify the written descriptions of business owners.

Availability interviews. The study team also asked firm owners and managers to provide comments at the end of the online or telephone interview. Businesses were asked:

> Do any other barriers come to mind? Do you have any general thoughts or insights on starting and expanding a business in your field or winning work as a prime or subcontractor in Nevada?

A total of 228 businesses provided comments. The study team analyzed responses to these questions and provided examples of different types of comments in Appendix J. Availability interview comments are referenced as "AI."

Public meetings. The Nevada Department of Transportation held public meetings about SBE/DBE goals on state-funded projects in Reno on July 16, 2013 and in Las Vegas on July 25, 2013. Keen Independent reviewed comments made at these meetings.

After publishing the draft disparity study report in early September, NDOT held public meetings on the disparity study in Sparks on October 22, 2013 (and viewed via video conference in Elko, Ely and Winnemucca) and in Las Vegas on October 24, 2013. Representatives of construction and engineering firms, chambers of commerce, trade associations and other groups were in attendance. The study team reviewed and analyzed comments from these meetings and included certain comments in Appendix J.

Public meeting comments are referenced as "PM" in Appendix J. Comments from July 2013 meetings are identified as numbers 18, 19 and 20 and comments from the October 2013 meetings are identified as numbers 1 through 17.

Written testimony and phone calls commenting. Public comments were also received via phone, e-mail and letter following the October public meetings. These comments were also analyzed by the study team and provided in Appendix J. Written testimony is referenced as "WT" and phone calls are referenced as "P."

B. Background on the Transportation Contracting Industry in Nevada

Part B summarizes information related to:

- How businesses become established *(page 3)*;
- Challenges starting a business *(page 4)*;
- Changes in types of work that businesses perform *(page 5)*;
- Fluid employment size of businesses *(page 6)*;
- Flexibility of businesses to perform different types and sizes of contracts in different parts of the state *(page 7)*;
- Local effects of the economic downturn *(page 9)*;

- Current economic conditions *(page 13)*; and

- Business owners' experiences pursing public and private sector work *(page 14)*.

How businesses become established. Most interviewees representing construction and engineering businesses reported that their companies were started (or purchased) by individuals with connections in their respective industries.

Many firm owners worked in the industry before starting their own businesses. Examples from the in-depth interviews include the following:

- The Hispanic co-owner of a DBE-certified supply and DBE-certified general contracting company took a summer job in the industry after coming to the United States from Mexico. He said that he moved his way into the sales department, then moved to assistant manager, then manager. He then decided to start his own business. [#3]

- The female owner of a DBE-certified engineering firm reported that prior to starting her business she had been working as an engineer and had a baby. After her baby was born, she wanted flexibility of still working in the office and that drove her to start a business. She said that she started the company with the intent of being very small and it grew. [#5]

- The African American proprietor of a DBE-certified general building contracting company previously worked as an electrician and then received further training before acquiring a general contractor's license." [#12]

- The manager of a woman-owned supply firm reported that prior to starting the company, one of the owners worked in the industry. [#4]

- The male partner in a DBE-certified, woman-owned engineering firm reported that he worked for another engineering firm when he and his wife decided to start their own business. [#13]

Challenges in starting a business. Interviewees had wide-ranging comments about the challenges in starting a business.

Some interviewees indicated that due to their previous experiences and contacts, there were little to no challenges in starting their business. For example:

- When asked about the challenges she faced when starting her business, the female owner of a DBE-certified engineering firm reported that it was not very difficult for her because she was busy with work. Much of her success resulted from her being able to keep her clients from her old firm and the work wasn't all that different from what she had previously been doing but it was for herself instead of another firm. She also mentioned that Nevada is a small state where everyone in the industry knows each other and that made it easier for her as well. [#10]

Others identified the challenges they faced in starting their business. Examples of such comments include the following:

- The African American proprietor of a DBE-certified general building contracting company reported that financing and finding employees were the two biggest challenges in starting his business. He recalled that he never received any financing during his start-up, so he would do smaller job and save the money from that job and use it for the next one. [#12]

- The male partner in a DBE-certified, woman-owned engineering firm reported that the biggest challenge he faced when starting his business was earning the respect of the public agencies and proving that they were knowledgeable and experienced, even though they were a brand new company. He recalled that he was told on several occasions that he would not be able to win a job because his firm's resume did not reflect enough experience although his personal resume demonstrated significant experience. [#13]

- The white female owner of a DBE-certified specialty contracting firm reported that when she first started her business, people didn't want to deal with a woman in the construction business but it wasn't blatant. She said, "It was just like the good ol' boys." [#30]

- The African-American female manager of a non-certified electrical contractor said, "There are really no books on how to open a business, even though there are. Those are really very general. It's really a personal thing. The little things that you don't think about are the difficulties." She also said that managing a job is much different than owning the company. Larger businesses have people that can do things and in a small business it's just you. [#20]

Changes in types of work that businesses perform. Interviewees discussed whether and why over time firms changed the types of work that they perform.

Several interviewees indicated that their companies had changed or expanded their lines of work to respond to market conditions. For example:

- The female owner of a DBE-certified engineering firm said that the economic downturn hit her firm in 2008 and they lost their two main clients which led her firm to re-strategize. They identified public works and the renewable power industry as potential avenues and did a concerted effort push on both. She reported that she had a zero response on public works and redirected to renewable energy, which has been quite successful. [#5]

- The white male President of a general engineering firm reported that the company only had two employees when it was started in 1964 and the firm's main focus was hanging kitchen cabinets because they were carpenters by trade. From there, they started doing a little bit of commercial work and then, in the early 1990's, they started doing bigger commercial projects. When their dirt contractor couldn't keep

up with their schedule, the firm's founder decided to open a general engineering department. [#8]

- The chief estimator of a publicly-traded construction company reported that his firm started perusing mine work in Nevada two years ago. They had already been doing it in Arizona. [#9]

Some interviewees explained that perceived incentives for MBE/WBE/DBEs was one factor that encouraged starting those businesses. [For example, #15] When asked about the challenges she faced in setting up her firm, the Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm, reported that she really didn't have any because she already had a contract in place. She was working a large project for another consulting firm when the project manager suggested that she start her own business because he needed her as his "small business." She said she created her firm and became the "token" DBE on that project. [#11]

Fluid employment size of businesses. The study team asked business owners about the number of people that they employed and whether their employment size fluctuated.

A number of companies reported that they expand and contract their employment size depending on work opportunities, season, or market conditions. Examples of those comments include the following:

- The Hispanic co-owner of a materials supply and DBE-certified general contracting company reported that his firm currently has 10 employees and labor is added as needed. His employee numbers can get up to 30 field employees if needed. [#2]

- The chief estimator of a publicly-traded construction company reported that the size of their craft workforce changes with the season. They have 2,000 to 3,000 salaried employees nationwide and 100 salaried employees in Nevada. He said there are approximately 300 craft employees in Nevada during the peak season and 100 to 150 craft employees during the low season. [#9]

- The minority co-owner of a general contracting and procurement firm reported that his firm hires additional employees on an as-needed basis. He has had to do so four times in the past year and has had as many as 30 employees at one time. They have part-time project managers that they hire to manage employees when a large staff is needed. [#15]

- The white male manager of a publicly-traded construction supply firm reported that the market size determines how much of a support staff he needs. He said that the company ranged from 50 to 13 employees. The site force fluctuates with the amount of work. [#21]

- The white female owner of a DBE-certified specialty contracting firm reported that her firm employs 16 people in management. During the peak season, she has 65 employees and 20 to 25 in the off season. [#30]

Some interviewees said that they had reduced permanent staff because of poor market conditions. For example:

- The white male President of a general engineering firm reported that the firm had 200 employees when he started and during the economic boom (2006-2007), they had 1,200 employees. Currently, they have 325-330 employees during the slow season and approximately 650 during the peak season. [#8]

- The white male President of a subsidiary of a publicly-traded supplier reported that his firm has coined August 1, 2008 "Black Friday." On this date, they had several large projects end abruptly. He said that it would have been very difficult for his company to survive without the help of their global parent. They're still losing money but demand has picked up a little bit. From 2011 to 2012, they increased revenue by 20 percent and they are trending to increase another 20 percent for 2013. [#19]

- The male owner of a non-certified electrical contracting company reported that his firm went from 800 employees in 2008, down to about 100 employees due to the downturn in the economy. The business is "kind of dragging along the bottom" he said. [#35]

Flexibility of businesses to perform different types and sizes of contracts in different parts of the state. Interviewees discussed types, locations, and sizes of contracts that their firms perform.

Many firm owners reported flexibility in the locations and sizes of contracts that their firms perform.

- Many firm owners reported working state-wide. [for example, #4, #16, #29].

- A few firm owners reported working in Nevada and other states. [for example, #29, #30, #34, #38, #40, #41]

- A number of firm owners reported working throughout Southern Nevada [for example, #24, #39, and #42] and others primarily in Northern Nevada [for example #30].

Examples of specific comments include the following:

- The white female owner of a DBE-certified specialty contracting firm reported that her firm has two offices in Northern Nevada. They closed an office they had in Las Vegas because "it's not a nice place to work," she said. "The contractors down there make you jump through ridiculous hoops." She cited an example where the prime contractor wanted the City to sign off that all of their taxes had been paid before they would release the first estimate. She said she didn't have a relationship with them like she does with the contractors in Reno. She also ran in to a lot of bid shopping in Las Vegas. [#30]

- The white male representative of a majority-owned demolition company reported that, despite having an office located in Las Vegas, they mainly work outside of Clark County and outside of Nevada. This, he explained, is because of the way regulations are enforced. He reported that in his field regulations are so enthusiastically enforced in Nevada that it's almost impossible not to receive a citation during a project. "We'd rather work in California," he stated. [#41]

Other companies said that they prefer to perform projects close to their businesses. For example:

- The female owner of a DBE-certified trucking company reported that she won't do work in Las Vegas because she's heard that equipment will get destroyed if you leave it down there because they don't like outside companies coming in to their territory. She also doesn't think there's as much work in that area. [#25]

The representative of a construction association provided thoughts on the mix of contractors in the northern and southern parts of Nevada: He reported that the highway contracting industry in Northern Nevada has only a few firms. He also pointed out that there are differences in the base of construction firms between Northern and Southern Nevada. He said, "It's tough to find qualified DBE contractors in Northern Nevada. People go in and out of business." [#17]

Some firm owners indicated that their companies perform both small and large contracts. For example:

- The Asian Pacific female owner of a SBA- and DBE-certified environmental company reported that the size of her firm's contracts range from $500 to $1,000,000. [#16]

Some business owners noted that their financial resources affected how large of contracts on which they typically bid:

- The African-American female manager of a non-certified electrical contractor reported that her firm needs to purchase a lift and they will do so with cash when the funds are available. She said that her business is cash-based and they don't carry any debt. Because of this, the firm does not go after large jobs because it doesn't make sense for them to get a loan or a line of credit. They're taking it one step at a time. They don't want to grow too fast to their detriment. [#20]

Other business owners reported that they typically only perform small contracts. For example:

- The African American proprietor of a DBE-certified general building contracting company said, "I'm qualified to do contracts up to $250,000. That is my bid limit." He added that he has never had a job that reached his contracting limit because he does not have enough resources up-front to do a project that large. [#12]

Some companies reported that they work in several different fields, or that they had changed primary lines of work over time. For example:

- The white female owner of a DBE-certified specialty contracting firm reported that when the company first started, they only did one line or work. After nine months, she realized her contractors were looking for someone to do several pieces of the work as a package and they added a number of specialties. [#30]

Local effects of the economic downturn. Interviewees expressed many comments about the economic downturn.

Most interviewees indicated that market conditions since 2008 have made it difficult to stay in business. For example:

- The female owner of a DBE-certified engineering firm said, "Since the economy went south, we have really slowed down." She reported that the economic downfall has impacted her business "very harshly." She said, "[We are] just trying to pull in more work" and reported that her firm could be busier than they currently are. [#10]

- The Hispanic president of a minority trade association reported that her organization currently has 40 members but had around 300 before the economic decline in 2007. She said that a lot of the member companies no longer exist due to the downturn in the economy. [#18]

- When asked about the decline in the economy, the African American director of a minority development agency said, "[Minority businesses] have dried up and gone away for lack of opportunity. That's just the nature of the beast." He said that those that have survived, have scaled way back, cut back on staff, and made all the same adjustments everyone else has. [#23]

- The female owner of a DBE-certified trucking company expressed that the downturn in the economy was tough on her and it is going to take a while to feel comfortable again.[#25]

- The white female co-owner of a non-certified construction company reported that the economy went in to decline in 2007 and she was licensed and started her business in October of 2006 so she's been striving to hold on to the company and keep it solvent. [#14]

- The white male manager of a publicly-traded engineering firm said that currently, Nevada is in the worst economic condition of any state in the country. Nevada was one of the hottest residential markets in 2002-2006 and home prices skyrocketed. The Reno residential market was red hot and the entire infrastructure needed to support the residential growth so that cascaded in to casinos and other areas. Because of this, the engineering industry grew. He said that new engineering firms popped up, small firms got big and big firms got bigger. So, when the bubble

popped, his firm was hit hard. He said that now, Nevada has the highest foreclosure rate in the country. Thousands of people became unemployed and a lot of firms went out of business. [#27]

Many business owners and managers said they have seen much more competition during the economic downturn. They reported that more competitors are going after a smaller number of contracts in specific fields, with substantial downward pressure on prices. Larger firms have been bidding on work that typically went to smaller firms. Both construction and engineering companies have been affected. For example:

- The Hispanic president of a minority trade association reported that there are less opportunities to earn contracts because in the past, 20 firms might bid on a project where there are now 100 firms bidding for the same work. There is less work which creates more competition. [#18]

- When asked about the challenges that other firms in the industry might face, the white male co-owner of an engineering firm said, "Size does matter." He reported that large engineering firms survive due to economies of scale and small engineering firms survive because of low overhead costs, but the firms in the middle are the ones that struggle. Interviewee #7 said, "The guys in that middle group, they really struggle to make money. They can break even, they can make a little bit of money. But they can't make the money that the big guys do and they can't make the money that the small guys do." [#7]

- The Native American male owner of a DBE-certified electrical contracting company reported that the economic downturn has made him and his competitors get tighter with their bids. [#34]

- The white male partner in a majority-owned transportation engineering firm suggested that the market is more competitive now than it was five years ago, even though there are three or four fewer firms to compete with. He attributed this to a substantially smaller number of contracts, saying, "When the market was more robust, people started firms or offices here; and when the market declined they were hesitant to close up shop, so we have more competition than the market would justify." [#38]

- The white female representative of an erosion control company said, "I think, any small business has been for many years in survival mode. Most small businesses are small. I am running the office. I'm the chief estimator. I'm supposed to do everything that encompasses what maybe other firms might have four or five people doing. So that means you don't have a life. You're working 20-hour days, seven days a week, to survive. And then you have, hopefully, somebody that's out there running the field. My business partner does that but we bleed." [PM#5]

- The representative of an environmental firm reported that larger firms are foregoing profit on small jobs to keep the doors open and he cannot afford to do that as a smaller firm so his costs are automatically higher and the jobs are going to the larger firms. [PM#7]

- The male president of the Urban Chamber of Commerce said, "There is a feeling in communities of color that we're the last hired and the first fired. So I guess the corollary here is when the recession hit, and the larger firms may have shrunk from two or 300 down to 80. A smaller firm doesn't have the ability to do that if they are already operating at a low margin to begin with and reduced financial capacity. So I think that impacts us as well." [PM#11]

Some business owners said that they scaled back their operations in response to market conditions in order to stay in business. For example:

- The Hispanic co-owner of a materials supply and DBE-certified general contracting company reported that his business has made it through the economic downturn by "tightening [its] belt." [#3]

- The manager of a woman-owned supply firm reported that there isn't as much work available to bid and supply work as there was in better economic times and that has led to the lay-off of staff. [#4]

- The white male representative of a majority-owned material supplier and general contracting company said that they have sold off tens of millions of dollars' worth of equipment after the economic downturn, as they no longer had the staff to run it or projects that required it. [#45]

- The chief estimator of a publicly-traded construction company reported that his firm felt the effects of the recession from 2007 to 2012. He said there was a lot of private development in the market during the boom years especially in Reno and California but he never noticed a boom in funding or dollars in the public sector during that time. However, there were a number of taxes that were passed that created more public funding and the work that came from the increase in funding carried the firm forward through the first part of the recession. He said that they started to see a drop off in residential development in 2008 but the public work carried on. They had to lay off significant numbers of people between 2008 and 2010 due to the significant decline in the amount of private work. He said that the private work has not come back and the public funding and project numbers are down now as well. He reported that his firm has cut out waste and tried to be more efficient in order to stabilize the company. [#9]

- The female partner of a DBE-certified surveying firm reported that the firm currently has 16 employees. At one point, during the heyday, they had 64 employees. The industry tanked and she had to lay off a lot of people. All of the residential projects went away and developers were no longer funded. [#29]

- The white female owner of a DBE-certified specialty contracting firm reported that the economic downturn significantly hurt her business and prime contractors were very slow to pay. She said her firm does seasonal layoffs every year and her employees are accustomed to it. Her business has been fairly consistent in the last 13 years but there was about a 20 percent drop off during the economic downturn. [#30]

- The female representative of the Las Vegas Asian Chamber of Commerce reported membership declined during the economic downturn. She made some phone calls inviting previous members back and they said they could not afford to renew membership due to the slow economy. [#33]

According to interviewees, a few businesses may have survived because they were well-capitalized going into the economic downturn. For example:

- The white male president of a general engineering firm reported that the reason his firm survived the economic downturn was because they never had any debt and their cash position was always positive. He further reported that they lost a lot of money but with the amount of work they managed to get, they only had one really down year. His firm is very diverse and never put all their eggs in one basket and that's what enabled them to stay afloat. [#8]

- The white male manager of a publicly-traded construction supply firm reported that when the economy was good, several corporations came in and purchased the larger independent companies in his field. When the economy turned, the corporate presence was able to sustain the industry. [#21]

Several business owners said that they sought DBE-certification in order to survive the economic downturn.

- The female owner of a DBE-certified trucking company reported that in 2010, she was doing online research looking for financial information to help her through the tough times she was experiencing, due to the economy, and found SCORE. The SCORE counselors recommended that she get DBE/WBE certified. [#25]

- The white female owner of a non-certified trucking and excavation company reported that the recession hit and Pahrump went from 15 general contractor home builders to three and now there's only one. They used their savings to float the business for a few years. She became 51 percent owner to become a woman-owned business around 2007 or 2008. Her goal in doing so was to be prioritized higher up in the bidding process versus being non-woman owned. She had all the paperwork to become certified through the Nevada Minority Supplier Development Council. She was not able to prove her minority status. The effort was unsuccessful. [#36]

A few business owners and managers said that their companies did not see a decline in work due to the economic downturn. Examples of those comments include the following:

- The Asian Pacific female owner of a SBA- and DBE-certified environmental company reported that the economy has not seemed to affect her business and she's more concerned with work going out of state. [#16]

- The white male partner in a non-certified engineering firm reported that the economic downturn has not affected them significantly due to the amount of mining in the area. The mines provide a good economic base. He said that his firm is a little busier this year than they have been in the past. He said, "We've been pretty fortunate as far as our work load. There's enough work around here to keep us all busy." [#32]

Current economic conditions. Some business owners and managers said that economic conditions were improving. For example:

- The manager of a woman-owned supply firm reported that the economic conditions seem to be improving recently. [#4]

- The representative of a majority-owned engineering firm said, "The economy is finally starting to improve and we will expand if possible." [AI#12]

Other business owners and managers said that they have not yet seen an upswing in market conditions. For example:

- The minority co-owner of a general contracting and procurement firm said, "The economy's too fragile right now to think everything's back to normal and that scares me." [#15]

- The white male manager of a majority-owned materials supplier emphasized that the market was still not very good. When asked for keys to success, he replied, "knowing the market, knowing the people, and just surviving. We're still in survival mode." However, he also noted the importance of not letting prices fall too far down, even in hard times. [#24]

- The female owner of a DBE-certified trucking company reported that she only has one job scheduled for the next year so she's not anticipating the next year to be as good as the past year. [#25]

- The white female owner of a non-certified trucking and excavation company reported that business is very slow right now. She blames it on the President and his restructuring of taxing and laws that affect small businesses. [#36]

- The white male manager of a publicly-traded engineering firm reported that his firm originally did mining work so when the economy went bad, they went back to doing mining and that's what has sustained them. His office was one of the most profitable offices in the world from 2009-2011. This was due to their work in the

mining industry. Gold is mined in Elko and the gold industry was successful during this period as a reaction to the downturn in the economy. He said the mining companies are changing how they do business and it's becoming more competitive. Instead of sole-sourcing work, they are bidding it all out. They have been mandated to no longer sole-source their project. The mines are in need of price competition and bidding out projects to encourage contractors and consultants to "sharpen their pencils." [#27]

When asked about how small firms are weathering the downturn in the economy, the interviewee reported that he knows of four engineering consultants that worked in same the circles he did. Two have moved away (out of state) and two are unemployed now. He said that a number of consulting firms have tried to get in to the mining business. Other firms, even large ones, ask him for advice on getting in to the mining business. He added that for his firm to be viable, long-term and sustainable, it has to be diverse. They have to have mining work, NDOT work, etc. Otherwise they'll be subjected to the rapid cycles. [#27]

Business owners' experiences pursuing public and private sector work. Interviewees discussed differences between public and private sector work.

Most interviewees indicated that their firms conduct both public sector and private sector work. [for example, #2, #7 #8, #21, #25, #32, #42]

A number of interviewees noted that the slowdown in private sector work resulted in more companies pursuing public sector work. Examples of such comments include the following:

- The female partner of a DBE-certified surveying firm reported that 30 percent of her work is public and 70 percent is private. The public work has stayed the same but they're doing much less private work than they were previously. [#29]
- The white male owner of a service disabled veteran small business-certified supplier and general contracting company remarked that, when the housing bubble burst, his firm was faced with some serious challenges. They refocused their efforts away from the housing market and toward public works. [#42]
- Business owners and managers generally indicated that opportunities in the private sector are more dependent on the strength of the economy. [for example, #9, #14, #27, #31, #45]

While one interviewee noted the opposite; declines in public work resulting in more private work. The white male manager of a publicly-traded construction supply firm reported that there seems to be a big fluctuation in work. He said that when there's a lot of private work, there's not a lot of public work and vice versa. [#21]

Some interviewees reported that they preferred private sector work over public sector work.

Some of the comments indicated that performing private sector contracts was easier, more profitable, and more straightforward than performing public sector contacts. For example:

- The white male co-owner of an engineering firm said, "The public side has good people but it is a different environment that doesn't always foster peak excellent performance. Not that you don't get that, you do in the public side, but it's almost in spite of the environment they work in. There's relatively little motivation to do much." When asked if he would be interested in pursuing public work, he reported that he is but the drawback is that when a bid is provided, it's treated like an estimate and the price is locked in even though the project might actually cost the firm more once the entire scope of the project is revealed, after the contract has been signed. [#7]

- The white male president of a general engineering firm reported that public agencies take the lowest bid, provide the plans and don't want to be told how to do the work. He also reported that the challenge with this is that they get a lot of subpar plans and his competition will find the holes in those plans, bid accordingly and deal with change orders as they come up in the future. However, his firm tries to help early on and identify problems before they submit the bids. If they get a response back that says "just bid it the way you see it," then they bid it like everybody else, but they don't like to work that way. [#8]

- The female owner of a DBE-certified engineering firm reported that 50 percent of her work is with the private sector and 50 percent is with the public sector and she prefers private sector work. She has worked as a contractor for the Nevada Department of Environmental Protection and for the EPA in California and for Eureka County. She said, "[Public agencies] can be difficult when it comes to things like billing. We're a small company. We don't have someone who's dedicated to billing. Whereas the public sector [does] and they can spend all the time in the world and be as picky as they want to about billing things whereas that's just time wasted that we can't charge. That I found very frustrating." [#10]

- The Asian Pacific female owner of a SBA- and DBE-certified environmental company reported that her firm performs most of its work in the private sector. She prefers private sector work because firms are hired based on their qualifications as opposed to the bidding process associated with public sector work. [#16]

- The white male president of a subsidiary of a publicly-traded supplier reported that 25 to 30 percent of his firm's work is in the public sector, 40 percent of their business is residential and 30 percent is commercial. He said, "Unequivocally, the private side is easier [because of] the bureaucracy [involved in working with the public sector]." He said that NDOT goes in to his firm's plants every day and tests their aggregates and the private sector does not do that. [#19]

- The African-American female manager of a non-certified electrical contractor reported that her firm does all their work in the private sector because the public sector is difficult and there's so much to it. She said, "It's geared towards larger businesses because who has 40 hours to put a bid together? It takes labor hours to do it." She said that putting a bid together for a public agency is like walking through a house you've never been in before with the lights off. [#20]

  She added that in the private sector, you are able to connect and build relationships. She said that her firm wants to make its customers happy so they have not had any bad experiences with public customers. The public sector is very hands off. There's not much relationship building. She said, "It's all kind of behind a partition, very impersonal." [#20]

- When asked about the decline in the economy, the African American director of a minority development agency reported that the private sector is much more inclusive. His clientele is working mostly in the private sector. [#23]

- The white male representative of a majority-owned material supplier and general contracting company reported preferring private sector jobs to public sector ones, as they are easier to manage and require much less paperwork. [#40]

Some interviewees said that prequalification requirements on public sector work made private sector contracts more attractive for their companies. For example:

- The white male partner in a non-certified engineering firm reported that private work is easier to pursue because they don't' have to provide qualifications. Projects utilizing public monies require a statement of qualifications and it's time consuming to provide that level of detailed information. He said that the biggest challenge for them is telling people they can't do jobs because they're not big enough. He said, "It's always a time constraint. We just don't have enough bodies to get the job done as fast as the client wants." [#32]

- The Native American male owner of a DBE-certified electrical contracting company said that in public work, firms have to be prequalified which is hard for a small business to do because they require financial information. [#34]

Some interviewees said that current market conditions are such that there are more bidders on government contracts and that competitors sometimes submit low-ball bids on public sector work. Examples of such comments include the following:

- The female owner of a DBE-certified trucking company reported that one of the challenges she experienced is that competitors are cutting their rates a lot. She said she doesn't know how the other DBEs are doing it. Some of their trucks are out of DOT compliance because they're not making enough money to take care of their trucks. [#25]

- The male owner of a non-certified electrical contracting company said that he does not go after public work very often. Sometimes his firm will bid on work at Nellis Air Force Base. He said, "The problem in this town is that contractors come from all over the country to go after that work and most of the local contractors can't even get jobs [at Nellis]. In other parts of the country, they tend to stick with the contractors that are in the surrounding area but here in Las Vegas, the contractors come from all over the world to do the work. Our union rates are a lot higher than they are around the country which on our side makes it even harder and tougher to go out and work." [#35]

Other interviewees preferred obtaining public sector contracts because they were more certain that they would be paid. Certainty of payment on public sector projects was a frequent comment among those business owners and managers. Examples of those comments include the following:

- The female owner of a DBE-certified engineering firm reported that a positive to working with the public sector is that they pay their bills. [#10]

- The minority co-owner of a general contracting and procurement firm reported that his firm does not do work in the private sector and they've been looking at public works jobs, hoping the payment is better. He said, "[One prime contractor] gets every road job that comes along. Why? Because of their size. Now, do they allow the little guy to get a piece of that? Nine times out of ten, no." [#15]

- The white male manager of a publicly-traded engineering firm reported that the advantage to working on the public side is that there is usually funding to finish a public job. [#27]

- The Hispanic male director of a Hispanic advocacy group said that the thing about public work is it may be late but you get paid. Once you get in to the cycle of doing public work, you have cash flow coming in all the time. Conversely, in the private sector, it's a hassle to get paid. In private work, no one tells you who to hire so relationships are more important. He said that if DBEs do have relationships with the big primes from the public sector, they hope that they take them with them to the private sector. He said, "Here is where NDOT sensitizing these companies and having a good supportive services consultant is key. If you have a good consultant that gets the trust of the DBEs and the trust of the primes, you have a win-win situation. [#37]

- The white male representative of a majority-owned demolition company said that his firm primarily works on public jobs—both on the state and federal level—as payment from government work is more reliable. When questioned, he acknowledged that he had not experienced much difficulty getting payment in the private sector, but wanted to avoid the possibility of such difficulties. [#41]

- The white male owner of a service disabled veteran small business-certified supplier and general contracting company explained that working in the public sector often means a somewhat longer wait before receiving payment, but actually receiving payment is far more certain. In the private sector, he continued, getting paid can be a struggle, and a firm can have large losses on receivables if they aren't careful.[#42]

Some interviewees said that they preferred public sector work because it is more profitable. For example:

- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm said, "I like working for the public because their projects, in my line of work, it seems like they last a little bit longer. I've had one private job and that's it. All my projects have always been with the public entity." [#11]

- The white female owner of a DBE-certified civil engineering firm reported that her firm was able to get through the economic downturn because they do mostly public work. Last year was their best year because they were able to prime an NDOT construction project. [#31]

One interviewee said that pursuing private sector work in addition to his public sector contracts was difficult because he was a union employer. The white male manager of a publicly-traded construction supply firm explained that because they are union, they do more work in the public sector than in the private. [#21]

Some interviewees said that pursuing public sector work was more challenging because bonding is required.

- The Hispanic male co-owner of a construction company said, "It's a lot easier in the private sector to do work because they're not asking for a bond." [#1]

- When asked about challenges and barriers to pursuing public sector work, the Hispanic male co-owner of a materials supply and DBE-certified general contracting company reported that he would need higher bonding capacity to bid on more public sector work. [#3]

- The African American proprietor of a DBE-certified general building contracting company reported that all of his work is private because he has not been able to qualify for bonding. [#12]

- The representative of a Hispanic-owned landscaping company said, "Bonding is difficult to obtain for larger projects. We are able to obtain bonding for $1,000,000 per job and $3,000,000 aggregate." [AI#4]

Some interviewees with experience in both the private and public sectors identified advantages and disadvantages of private sector and public sector work. Examples of those comments include the following:

- When asked about the challenges involved with working with public agencies, the manager of a woman-owned supply firm said, "It can be a maze of people." He reported that it is difficult to find the appropriate people to speak with and introduce his business to. [#4]

- When asked about the challenges for smaller firms for small business pursuing work public and private, the female owner of a DBE-certified engineering firm said, "[The public agencies] kind of get used to a certain group of consultants they like and honestly, they're usually big boys." [#5]

- The chief estimator of a publicly-traded construction company reported that he is neutral about performing public versus private work but in his past roles, he preferred public work because it's prescriptive and very non-biased. He said, "You're just expected to submit a responsive low bid and you'll get the job." He explained that in the private sector, you have to fight and submit proposal after proposal and it's more about relationships instead of low bid. He said that private work is good because of the relationships and reputation that leads to repeat work. He also said that the negative side to bidding on public work is that there are lots of bidders and low-bid wins, not necessarily qualifications. [#9]

- The white female co-owner of a non-certified construction company reported that she feels it's harder to get in to private work because the public work seems to be more open and willing to help businesses. In regards to conducing the work, she said, "I like being able to work with the County, work with the State, work with the school districts. I also like working with the private sector. I don't see any difficulty on either side." [#14]

- The minority co-owner of a general contracting and procurement firm "Public work; I don't want to say it's a good ol' boy network, but it sure seems like it is sometimes because you see the same people on it over and over and over and I refuse to believe that there's nobody else bidding on the projects." [#15]

- The white male manager of a majority-owned materials supplier said that historically he had worked mostly in the private sector, but that only about 40 percent of his current work was private — the remaining 60 percent being in the public sector. Moreover, he expressed a preference for the stability, reliability, and organization of public sector work, noting that "the public's a lot easier to work with because they schedule in advance." He added that, for private contracts, the cheapest bid was usually the one accepted unless there was a strong prior relationship with the contractor. "It's all on the almighty dollar right now. [#24]

- The white male manager of a publicly-traded engineering firm reported that the construction side of his firm liked to do public work because it wasn't so volatile but with the changing environment, they are forced to look at private work. He said they are trying to work more on the highway construction side and get in with prime contractors. They are subcontracting less work so that they can keep the work in-house and make more money. In turn, the small firms are not getting as much work because the larger ones are keeping it in-house and the effects of the economy are trickling down. [#28]

- When asked about the disadvantages to working in the private sector, the white male manager of a publicly-traded engineering firm reported that the gold mining industry is different from constructing a private casino. He recalled that he had been working on a significant casino project that he had been providing information for and proposing on for several years. He said it was necessary for his firm to communicate with the project owner but the project was ultimately cancelled. He had several hundred hours invested in the project that never went anywhere and generated zero revenue. When asked about the disadvantages to working in the public sector, he reported that the public agencies have on-call lists for each category of consulting. A firm must be prequalified and on the on-call list in order to do any work for the public agency. The public agency is required to distribute the work and it is awarded on rotation. [#27]

- The female partner of a DBE-certified surveying firm reported that the benefit to working with public agencies is that a DBE percentage is required and that the benefit to working with a private firm is that she and her employees have personal relationships with people and they deal with one person at a time. [#29]

C. Doing Business as a Prime Contractor or as a Subcontractor

Business owners and managers discussed:

- Mix of prime contract and subcontract work *(page 20)*;

- Prime contractors' decisions to subcontract out work *(page 24)*;

- Subcontractors' preferences to do business with certain prime contractors and avoid others *(page 28)*; and

- Subcontractors' methods for obtaining work from prime contractors *(page 28)*.

Mix of prime contract and subcontract work.

Many firms that the study team interviewed reported that they work as both prime contractors and as subcontractors.

- The white male President of a general engineering firm reported that his firm performs work as both a prime and a subcontractor. However, they prefer to be a prime contractor. He said that the challenge of being a subcontractor is that

subcontractors are not in control of the whole project and therefore, cannot control the schedule, etc. [#8]

- The chief estimator of a publicly-traded construction company reported that his firm often serves as a prime contractor but sometimes does subcontracting work as well. They recently bid on a subcontract job for a Construction Manager at-risk project and they also subcontract for a lot of general building.

  He reported that an advantage of being a prime contractor is that you control the work and you can do as much of it as you want or are capable of. He said that the challenges that come with subcontracting are working under someone else's rules and having to rely on the general contractor to pay you on time. He reported that prime contractors typically pay on time but have had issues with payment in the past. [#9]

- In deciding whether her company will be a prime contractor or a subcontractor, a female owner of a DBE-certified engineering firm reported that her preference for working as a prime or a subcontractor depends on the prime. She said that some primes mentor and they really enjoy those relationships. But, others are arrogant, disrespectful and condescending. She also said that if they were to ever feel discriminated against, maybe that would be a time.[#5]

- The white male partner in a majority-owned transportation engineering firm said that about half of his firm's work is as a prime contractor and half is as a subcontractor. He reported a general preference for working as a prime contractor, due to greater control in team, strategy and outcome.

  He acknowledged that some projects were simply too big for his firm to consider being the prime contractor for them. He highlighted the necessity of a strategic approach pursuing projects: He said, "We won't go after a project unless we think we can win it as a prime; and if we don't think we can win it as a prime, we will try to get on a team as a subcontractor." [#38]

- The white male representative of a majority-owned demolition company reported working as both a prime contractor and a subcontractor. When working as a prime contractor, he claimed that most jobs are awarded using a best value model. Conversely, he stated that subcontracting jobs are usually won by the lowest bidder. [#41]

- The white male manager of a publicly-traded engineering firm reported that his firm is a prime contractor on most of the projects they're currently working on. He said that on the construction side of the business, they act as a prime contractor approximately 75 percent of the time and as a subcontractor 25 percent of the time. [#27]

- The female partner of a DBE-certified surveying firm reported that 60 percent of her firm's work is performed as a subcontractor and 40 percent as a prime contractor. An example of a project they would act as a prime contractor for would be working for a developer where they start with surveying the dirt and going from there. She said that they always serve as a subcontractor when working on public projects. [#29]

- The Native American male owner of a DBE-certified electrical contracting company reported that he would work as a prime contractor for the public sector and he subcontracts for the private. [#34]

The study team interviewed many firms that primarily work as subcontractors but on occasion also work as prime contractors. [for example, #11, #16, #30] Some firms reported that they primarily work as subcontractors because doing so fits the types of work that they typically perform. For example:

- The manager of a woman-owned supply firm reported that his company does not work directly with public agencies because they are a supplier that will provide product and materials to a prime contractor. [#4]

- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm reported that she has only primed one residential job and all of her other jobs have been as a subcontractor. [#11]

- The white female owner of a DBE-certified specialty contracting firm reported that her firm does about one prime contracted job per year, the rest are subcontracted. She said that rumble cutting is an example of a project that she would serve as a prime contractor on. [#30]

Some business owners and managers said that they mostly work as subcontractors because they cannot bid on the size and scope of the entire project, or find it difficult to compete with larger firms for those prime contracts.

- When asked about challenges for a small business to work as a prime contractor, beyond bonding, the Hispanic male co-owner of a supply and DBE-certified general contracting company reported that NDOT jobs are so big that they don't know how to get started with them. [#2]

- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm reported that she would be interested in priming contracts but she would need the staff and overhead. [#11]

- The African American director of a minority development agency reported that his clientele works as both prime contractors and subcontractors. However, none of their contractors are in the position to bid on prime contracts that NDOT has. He said that the contracts for the design-build method of highways and jobs are $300,000,000. He also said that because these large primes have all of their

equipment already, and they have all of these resources in place, there's no way that another company can compete. He noted that he has not had a client that was an NDOT prime contractor because "that's a pretty good position to be in" and they would not need his services. [#23]

- The Native American male owner of a DBE-certified electrical contracting company reported that he has never been a prime contractor with a public agency so he's not sure if it's easier to get that work or public work. He has not tried to prime contract public work because the jobs are too big. [#34]

- The male owner of a non-certified electrical contracting company reported that his firm primarily works as a subcontractor. He said that the advantage of being a large contractor is that they have large bonding capabilities so they eliminate a lot of competition by being able to go after much larger jobs than others. Conversely, the disadvantage to being a small contractor is that there are a lot of little contractors and competition is fierce for the smaller jobs. [#35]

- The Hispanic male director of a Hispanic advocacy group said that DBEs don't have the capacity or the capability to prime contracts. They are usually second and third tier entrepreneurs [#37]

Other firms reported that they usually work as prime contractors, and prefer to do so, but will also serve as subcontractors.

- The white male partner in a non-certified engineering firm reported that his firm does indirect work with NDOT as a subcontractor and do an average of one project a year as a subcontractor on NDOT projects. He reported that 90 percent of the time they work as a prime contractor but they have become subcontractors when they do surveying for a highway contractor. [#32]

- The female owner of a DBE-certified engineering firm said, "I would rather prime. That way you keep control over the flow of work and you control the contacts with the client. As a sub you have much less control and communication." [#10]

- The white male manager of a publicly-traded engineering firm said, "[As a subcontractor] you have less control of things like the budget, the schedule, the scope of work because you're working for somebody else instead of directly with the agency." He also said that payment is an issue as a subcontractor because when they are the prime contractor for any government agency, they get paid but if they're a subcontractor, it takes a while to get paid. He said it can take four months to get paid. [#28]

- The white female owner of a DBE-certified civil engineering firm reported that her firm primes more jobs now than they did in the past. She said that when a firm is first starting out, they are small and can't get work so they will work more often as a subcontractor. In the past when there was more work, they would prime 75 percent of their jobs. Now, they're priming about 10 percent. She does not really have a

preference but said it may be a little bit better to prime a contract because you have "total control over what happens." If a firm is a subcontractor on a project, she said, "You're at the mercy of the prime contractor and they have control over how they treat you, how much work they give you and the quality of the work. Your reputation is all you have. If a prime is screwing up a job, it's a reflection on you." [#31]

- The white male partner in a non-certified engineering firm said that he thinks he can do a better job working directly for the owner and he can provide better service. When asked about the challenges of being a prime contractor, Interviewee #32 said that the challenge is to make sure you take care of the client. He said, "We seem to do better with clients we've worked for before." [#32]

- The Native American male owner of a DBE-certified electrical contracting company reported that he prefers to prime contractors because the prime is the "banker." He said, "When you're a subcontractor, you finance the job. When you're a prime, you don't. You finance only your project managers or your supervision." [#34]

- The white female owner of a non-certified trucking and excavation company reported that in general, she estimates that her firm is the prime contractor 80 percent of the time. She prefers to be a prime contractor because they are the first to get paid. The subcontractors have to wait longer to be paid. [#36]

Prime contractors' decisions to subcontract work. The study team asked business owners whether and how they subcontract out work when they are the prime contractor.

Some prime contractors say that they usually perform all of the work or subcontract very little of a project. Examples of such comments included the following:

- The chief estimator of a publicly-traded construction company reported that contracts sometimes dictate how much work must be subbed out. His firm will sub out work they don't typically perform or don't have a license for. For example, striping, signs, fence, etc. They self-perform asphalt, dirt, concrete and pipe and they self-perform 85 percent to 90 percent of the work in a project.

  He added, "The challenges start in the scope of work in the job. If the job is very limited in scope, there's not a lot of room to sub it out since we self-perform all that work. So you've got to be creative on trucking." [#9]

- The female owner of a DBE-certified engineering firm does subcontract out work when necessary. She said that it makes the most sense to keep as much work in house as possible. She has specific people she calls when she needs subcontractors. It depends on what type of work she needs done as to who she calls. She does not bid those jobs out. She does not use DBE subcontractors and does not know of any. She uses the same subcontractors on public and private work. [#10]

- The representative of a construction association said that local government road departments are doing small projects with their own employees and equipment. He reported that in Fallon, a road department is building a bridge. He said that work was normally bid out. He also indicated that AGC Nevada has a bill in the Legislature to prohibit local governments from doing that work themselves. He also indicated that certain types of work are more naturally subcontracted, such as concrete work on a paving contract. He also said that primes were keeping more and subbing out less work during the downturn. For example, a prime might keep the concrete work and not sub it out. [#17]

- The white male partner in a majority-owned transportation engineering firm cautioned that firms must be careful which companies they are willing to subcontract for. Prime contractors will often ensure that their employees are fully utilized before passing remaining work on to subcontractors, sometimes taking work a subcontractor was hoping for. [#38]

Many interviewees from companies that use subcontractors indicated that they use the firms with which they have an existing relationship. Both majority-owned and MBE/WBE firms that use subcontractors made such comments.

- The female manager of a DBE-certified engineering firm reported that her firm will sometimes subcontract work out and selecting subs is specific. She said that they don't do a RFP because the need is so specific, so they go directly to the firms that they know have the capabilities they need. [#6]

- The white male co-owner of an engineering firm reported that his firm is a member of a group of engineering firms and has lots of relationships through this group. He said that he gets most of his subcontracting needs met there but does hire outside firms through networks and relationships if there's a specialty he needs that no one in the group has. [#7]

- The white male president of a general engineering firm reported that he has three DBEs that he knows he can count on which include a hauling/asphalt company, a trucking company and a guardrail company. [#8]

- The chief estimator of a publicly-traded construction company reported that his firm solicits subs for work in several ways. One is the relationships they keep with subcontractors. They will call different subcontractors when they need help. If there's a DBE requirement, they will solicit in numerous publications papers, online, etc. They also make calls to DBEs. [#9]

  He also recalled that his firm recently held a DBE outreach meeting. They invited all DBEs on the NDOT list. NDOT and the Regional Transportation Commission were in attendance. They didn't have much response so they had the project estimators reach out to the DEBs and that helped a bit. They had 20 to 25 DBEs in attendance.

- The African American proprietor of a DBE-certified general building contracting company reported that he always uses the same subcontractors and does not bid out sub work. [#12]

- The minority co-owner of a general contracting and procurement firm reported that his firm hires subcontractors that they have relationships with but do occasionally bid jobs out. He said that they try to work with people who have the same kind of visions they do. [#15]

- The white male manager of a publicly-traded engineering firm reported that his firm subcontracts out drilling, specific lab testing, surveying, etc. His colleague said that their firm will team with people and sub work out because NDOT likes to see that. All of the subcontractors are included in the proposal and they work with the same subcontractors on both private and public projects. [#27, #28]

- The white male partner in a non-certified engineering firm reported that his firm occasionally subcontracts to architects when they have a project requiring that type of work. They find their subcontractors easily because Elko is a small town and they know everyone. They have people they have confidence in and try to use as much as they can. There's only one structural engineer in town, there are only two electrical engineers and there are no mechanical engineers so they're limited as to who they can use as subcontractors. [#32]

- The Native American male owner of a DBE-certified electrical contracting company reported that he selects his subcontractors based on relationships and those he knows are easy to work with. He uses the same subcontractors on a regular basis. He does get other bids to check pricing but usually uses the same people. [#34]

Some interviewees reported that prime contractors prefer to have a few large subcontracted packages of work rather than manage many small subcontracts. This can negatively affect small subcontractors, truckers and suppliers, including MBE/WBEs and DBEs. For example:

Some DBE contractors felt that prime contractors only used them when there was a DBE requirement on the job. For example:

- The female owner of a DBE-certified trucking company reported that she feels like the larger primes are only using her because they have to and they're not using her on private jobs. She thinks it's because she only has a few trucks and they would rather call one company to get all of their trucks. [#25]

Some interviewees described similarities and differences between considering DBEs and considering other firms as subcontractors. Examples of those comments include:

- The white male co-owner of an engineering firm reported that he's worked with several other consulting firms that were women-owned and that there are a lot more women in the engineering field than there were in the past. He said that minority-owned firms are harder to come by in his area and that he's only worked with four

or five in the past 15 to 16 years. He also said that he's never had a negative experience with a women-owned or minority-owned business and has had nothing but positive experiences. [#7]

- The white male president of a general engineering firm reported that his company doesn't use DBEs on private sector jobs because they are generally more expensive. He said that the DBEs know they are a commodity and mark up their prices accordingly. He further reported that his firm maintains relationships with DBEs but they're not large enough to fulfill their needs on a large scale job. [#8]

- The chief estimator of a publicly-traded construction company reported that he hasn't come across a subcontractor that he won't work with again. There are subcontractors that they discuss risk but because of the economy, they don't ever turn away a subcontractor due to a bad experience. He said, "What you need to do is analyze your experience with that sub as it compares to their price, as it compares to their risk on the job, and put it all together. We've had a number of subs fail on us for sure, but I don't know that we wouldn't ever take a quote from them again." [#9]

  He went on to say that in his previous work from 2008 to 2012, he was not aware of DBE requirements and was only familiar with "good faith efforts" that were required at an average of 3 percent. He said, "Now, there's a DBE goal on nearly every job we bid." He also said, "Now all of our estimators are challenged on EVERY job to go find DBEs and it takes up a lot of the estimating time to reach out, to solicit, to find the right amount of [DBE] subcontractors. With more jobs having goal requirements, we are really focused on our solicitation process, so much so that it's the immediate thing." He reported that they immediately advertise to find the DBEs as soon as they get a bid advertisement. He said, "It's a process that starts as soon as we get the bid book because if you don't make the goal, you need to show a good faith effort." He also reported his firm makes sure they call the typical DBE firms that they do work with and they can get other prequalified DBEs from NDOT's website. [#9]

- The representative of a construction association said that the prime would typically prefer one sub for $1 million rather than multiple subs for smaller amounts. "It's too complicated to put together [a team of many DBE subs]." He said that the prime will "jump over small people; it's just too hard to put the little subs together [into a bid]." [#17]

- The white male manager of a publicly-traded engineering firm reported that his firm uses a DBE surveying firm and has had good luck with them. They have not had any challenges with the DBE firms they've worked with. There are not typically DBE goals applied to the consulting side so they have not had to search for DBE firms. He added that his firm has subbed out project scheduling and storm water inspection on the construction side of the business. He said that they have to be creative to meet NDOT requirements sometimes because they don't need a lot of

help and they're required to find a piece of the job that they can sub out to a DBE. The DBEs are expensive to hire and they can be difficult to source. [#28]

- The white male partner in a majority-owned transportation engineering firm said that firms generally looked for subcontractors that will offer some sort of competitive advantage in obtaining the contract. For very large firms that often have all the resources they need, that usually means firms that will satisfy DBE percentage requirements.[#38]

- The white male representative of a majority-owned material supplier and general contracting company reported that the number of DBE subcontractors is very limited, adding that the majority of those which do exist often decide not to travel to Clark County to bid on a job. [#40]

Some owners and managers of MBE/WBE/DBE prime contractors said they seek out other MBE/WBE/DBE firms or small businesses as subcontractors on their projects. For example:

- The female owner of a DBE-certified demolition company reported also hiring additional DBE firms as subcontractors. [#39]

Subcontractors' preferences to do business with certain prime contractors and avoid others. Many owners and managers of firms that sometimes work as subcontractors indicated that they preferred to work with certain prime contractors.

Interviewees frequently mentioned speed and reliability of payment as reasons to prefer certain prime contractors and avoid others. Examples of those comments include:

- The female owner of a DBE-certified trucking company reported that the biggest portion of her DBE jobs has been with one particular prime contractor. She said that she gets paid within 30 days and they've been great to work with. Another prime she's worked with has been prompt on payment as well. Private sector jobs often take longer to get paid. [#25]

- The white female owner of a DBE-certified specialty contracting firm reported that there are several contractors in Reno that her firm typically works for. [#30]

In addition to prompt payment for their work, some firm owners and managers said that they preferred prime contractors that are organized and easy to deal with, maintain safe worksites, and treat them fairly. Examples of those comments include the following:

- The female manager of a publicly-traded construction supply firm said that her firm has built relationships with primes by establishing friendships and through the day to day work on the phone and over email. They educate each other on their needs. The relationships are built from years and years of working together. The generals are their customers so they treat them with good customer service. [#22]

Subcontractors' methods for obtaining work from prime contractors. Interviewees who worked as subcontractors had varying methods of marketing to prime contractors.

Some business owners and managers rely on repeat customers and word-of-mouth to obtain work from prime contractors. Examples of those comments include:

- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm reported that she's met with large prime contractors to introduce herself and describe what she can do to help them meet their DBE goals. She also said that relationships with primes and the state governments and entities have been keys to her businesses success. [#11]

  She further stated that she asks her employees to market her firm. She said, "In Southern Nevada, there's a lot of small business programs, there's a lot of get-togethers. I mean that Clark County has a lot of small business meetings. They have a lot of vendors that come and speak to small businesses for opportunities." She also reported that she gives her employees a bonus if they bring in work." [#11]

- The male partner in a DBE-certified, woman-owned engineering firm reported he's tried to build relationships with general contractors so their firm can do the design and the contractor can do the build piece and that sometimes the general contractors will call them for the civil engineering piece. [#13]

- The African-American female manager of a non-certified electrical contractor reported that her firm has been able to build some relationships. She said, "It's a slow process. It's not like you just have it one day. It takes time to network." She also said that all of their business has been word-of-mouth and they've done no advertising. [#20]

- The female partner of a DBE-certified surveying firm reported that her firm has worked as a subcontractor on a public project and the relationship they built with the prime led them to use her for other private projects as well. [#29]

- The white female owner of a DBE-certified specialty contracting firm reported that her firm runs an ad in the phone book and is on Google but they don't do much additional advertising. She said that she doesn't have the type of business that needs a lot of advertising because the relationships with primes are more important. [#30]

- The male owner of a non-certified electrical contracting company reported that his firm gets invited by general contractors to bid on jobs, or they see them advertised in the Construction Notebook. The firm receives some email notifications from the public sector. He said that a lot of jobs come because they've been in town for so long and they know a lot of people. [#35]

- The white female owner of a non-certified trucking and excavation company reported that her firm works for the same prime contractors on a regular basis. She said that her husband is good at building relationships and establishing contacts. Word-of-mouth is very important in their business. They haven't done advertising other than in the phone book. [#36]

Similarly, some business owners said that it was very difficult to solicit business from certain prime contractors because those contractors are going to automatically use the subcontractors they already know. Those comments included the following examples:

- The male partner in a DBE-certified, woman-owned engineering firm said, "That's the big difference with those set-asides. It opens the door to allow us to talk to people we probably otherwise wouldn't talk to and then when it is emphasized and it is a condition of award, or it's evaluated as part of award, then that gives the bigger business a lot more incentive to use us. Without that, we don't typically make it very far with the established firms." [#13]

- The Asian Pacific female owner of a SBA- and DBE-certified environmental company reported that her firm has not done a lot of bidding in the public sector but the project she bid on for one large public utility was not fair because the lab they hired was not qualified. She felt it was more relationship based than anything. [#16]

- The representative of a construction association spoke about the prime-sub relationship. He said that bigger primes have existing relationships with subs. "They have people they work with and tend to stay with these guys." He said that primes sometimes will send out postcards to subs or advertise for subs in a builder's publication. [#17]

- The Hispanic president of a minority trade association reported that members of her organization are complaining because they are not getting opportunities to get their foot in the door with projects such as casinos and other contracts. She said that this is because these firms have used the same contractors for many years and they rarely use new firms. She said, "It's very difficult to get in the door anywhere right now, public or private." [#18]

- The white male president of a subsidiary of a publicly-traded supplier said, "The key for us is developing, maintaining and nurturing relationships." He reported that his firm does not get to supply to the big highway contractor much because their relationship with them has waned and others have better relationships with them. He used the expression, "gotten in bed with them." [#19]

- The African-American female manager of a non-certified electrical contractor reported that she understands why prime contractors have goals but it's hard to say if they use them correctly. She said that primes use the same subs on everything so it's hard to say that they are really trying to meet those goals. She puts more responsibility on the prime because they should do what's required of them. [#20]

When asked about the challenges of being a minority-owned business, the same interviewee reported that she does not know if being minority-owned is why her firm may not be awarded a contract, but there are challenges to being a small start-up business because you don't have the relationships built that the established firms do. She said, "You don't know unless someone out and out tells you that. Nobody is going to do that." She also said that contractors and agencies have their relationships with the big guys and they play on that. They've already got established relationships even though they ask for bids from no-name companies. [#20]

- She also said that some prime contractors will ask for a bid tomorrow and that is difficult because they don't want to just throw it together. [#20]

- The Native American male owner of a DBE-certified electrical contracting company reported that his firm bids directly to the general contractor or to the bid depository to earn jobs. He said that he has not done enough work to bid for the same contractors. He used to bid to specific general contractors but they just use the same people all the time and he found out one of them was "shopping under" (bid shopping). [#34]

Some business owners said that they actively market to prime contractors. Those businesses reported that they sometimes identify prime contractors from bidders' lists, planholders' lists, at pre-bid or pre-proposal conferences, or through outreach events.

- The manager of a woman-owned supply firm reported that his company will often find that one of the products they sell is specified in a project so they will try and presell to the prime contractors. However, there are prime contractors that will only buy their supplies from them and they are the majority of their business. He further reported that once they establish a relationship with a contractor, he will be loyal to that relationship by purchasing from the same person unless he doesn't carry a product that's specified in the contract. [#4]

- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm reported that to find work she reviews the NDOT website for RFPs, subscribes to DBE emails and reviews the Clark County weekly RFP letter. [#11]

- The female owner of a DBE-certified trucking company reported that she has made relationships with prime contractors by researching online and going to workshops to understand how to network with the prime contractors. SCORE referred her to the Procurement Outreach Program (POP) and they helped her get the DBE certification and gave her the names of different places to go to and companies to target. [#25]

Some business owners said that they are also routinely solicited for bids from prime contractors. Examples of those comments include the following:

- The female owner of a DBE-certified trucking company reported that NDOT projects are advertised on the NDOT website and she visits its weekly. She said, "It's a pretty good site." She's also listed on the NDOT DBE vendor list and she receives emails from prime contractors saying that they're looking for bids on their projects. [#25]

- The female partner of a DBE-certified surveying firm reported that prime contractors, on public projects, will usually approach her firm. They will ask for their marketing materials to submit with their bid. They will do this because she is DBE certified. She's hoping that the more she works on projects with other people with a DBE requirement, the more work she can gain from it. [#29]

- The white female owner of a DBE-certified specialty contracting firm reported that prime contractors know that her firm is all-inclusive and prime contractors will call her firm to subcontract on a project. She said that most often, she knows about the job before they call her. [#30]

- The Native American male owner of a DBE-certified electrical contracting company reported that he learns about work via the Dodge Report, Construction Notebook or by invitation. He said that he can tell if it's a good faith effort or a genuine invitation. They also subscribe to the NDOT and Clark County bulletins. [#34]

- The female owner of a DBE-certified demolition company reported that her firm maintains good relationships with general contractors, and that those contractors will invite her firm to work with them due to those relationships. [#39]

D. Keys to Business Success

The study team asked firm owners and managers about barriers to doing business and about keys to business success. Topics that interviewers discussed with business owners and managers included:

- Employees (page 32);
- Equipment (page 35);
- Access to materials (page 37);
- Financing (page 37);
- Bonding (page 40).;
- Insurance (page 42); and
- Other factors (page 43).

Employees. Business owners and managers shared many comments about the importance of employees.

Many interviewees indicated that high-quality workers are a key to business success. Examples of such comments include the following:

- The female partner of a DBE-certified surveying firm reported that the original owner of her firm worked with the new owners for about two months before his departure from the business. The first thing the new group did was decrease the amount of employees and increase the productivity by laying people off and bringing in more specialized people. [#29]

- The white male partner in a majority-owned transportation engineering firm noted that it is not just the owner of a firm who must maintain a good relationship with a client; employees are often the ones who work most closely and directly with a client, and they have to give a good impression too. [#38]

- The white male vice president of a majority owned trucking and aggregate company said, "We have a pretty good crew." He said that his company has a benefits package and retirement plan. He said, "A lot of times, the DBEs have people in the trucks that aren't as qualified because they don't provide those kinds of things. It costs us more to operate but those are the only people I'll have around." He continued, "A large majority of our drivers have been with us for over five years some over 10 and some over 15. Those kind of people have been huge in our success." [#44]

- The white male representative of a majority-owned material supplier and general contracting company stated that employees are essentially the first representatives of your company. His colleague added that they also make up the foundation of the company as a whole. He then pointed out that an employee with many years of experience with some type of equipment will often have excellent ideas about how best to utilize that equipment for a particular job. [#40, #45]

- Many other business owners and managers made similar comments about the importance of quality employees. [for example, #4,#16, #34]

Many business owners and managers said that developing and maintaining relationships with their employees was key.

- The Hispanic male co-owner of a materials supply and DBE-certified general contracting company said, "The majority of our key employees have been with us for more than 20 years. As a small company it's kind of hard [to get good employees to stay] but I think if you build a good environment, you know, you have good conversations, it's OK." [#3]

- The white male manager of a majority-owned materials supplier advised that building a relationship with one's employees was important. He said the key was to be fair with them, and not "play games." [#24]

- In regards to her employees, the white female owner of a DBE-certified specialty contracting firm reported that her supervisors have an open door policy. If one of her team members has a personal issue, she lets them know she stands with them. She said that it's not about getting out there and making money. Employees are important to her and she has relationships with all of them. [#30]

- The Native American male owner of a DBE-certified electrical contracting company reported that he and his employees work long hours and weekends and are dedicated to his business. He said that he's successful because he spends his time talking to people and networking. [#34]

- The white female owner of a non-certified trucking and excavation company said that a key to success is that they have a good rapport with their employees. [#36]

Some owners and managers said that being union employers helped them find workers. For example:

- The white male manager of a publicly-traded construction supply firm stated that because of their union status, they can call employees up from the union as needed. [#21]

- The male owner of a non-certified electrical contracting company reported that he has access to lots of good employees through the union hall. He said that a huge factor to his firm's success is all the great people that work there. [#35]

- The white male representative of a majority-owned material supplier and general contracting company reported his firm hires extra union workers whenever the workload increases. [#40]

Some business owners and managers said that they preferred to have control over employee hiring, or had negative experiences with unions, and did not want to be union employers. For example, the Hispanic male co-owner of a construction company reported that in order to contract a union job, the business has to sign a Project Labor Agreement that lasts for one year and you are required to pay union wages during the period of that agreement. He said that they do not bid union jobs because they have not signed the Project Labor Agreement because the required employee benefits cost too much to pay union wages.

Some firm owners and managers indicated that hiring and retaining employees was more difficult for small businesses than for larger companies. For example:

- The Hispanic male co-owner of a materials supply and DBE-certified general contracting company said, "The majority of our key employees have been with us for more than 20 years. As a small company it's kind of hard [to get good employees

to stay] but I think if you build a good environment, you know, you have good conversations, it's OK." [#3]

- The female owner of a DBE-certified trucking company reported that employees can be a challenge. They have one employee that's been with them for six years who is very dependable. Another employee has been there for two years and he's very knowledgeable which she says is helpful. However, she says it's been difficult with the other employees because there is not enough work to keep them busy for 40 hours a week so they might last one season and then they move on. [#25]

- The white male partner in a non-certified engineering firm reported that civil engineers and land surveyors are good at what they do but they're not good managers. They don't manage people well and that's why his firm has stayed small and not hired a large staff. They stick to what they know best. [#32]

- The representative of a woman-owned non-certified engineering firm said, "It's very difficult recovering from the recession. In our area, it's difficult finding qualified personnel." [AI#9]

Equipment. Some businesses, especially in construction, require a substantial amount of equipment to perform their work. Some own their equipment and some rent equipment.

Some businesses reported that they own certain equipment and then rent larger pieces of equipment that they may infrequently need. For example:

- When asked if acquiring equipment is a barrier, the Hispanic male co-owner of a construction company reported that his firm rents all equipment versus owning it and that the cost of the equipment rentals does not negatively impact the cost of the overall job. [#1]

- The Hispanic male co-owner of a materials supply and DBE-certified general contracting company reported that his firm has a large inventory and good equipment. He said that some was financed but his company does a lease with option to buy because when purchasing equipment, it can become obsolete before it's paid for. He said, "We have a philosophy, when things change, you have to evolve." [#3]

- The African American proprietor of a DBE-certified general building contracting company said, "I have a lot of my personal equipment but if [I need] something I don't have, I just rent it." [#12]

- The white female co-owner of a non-certified construction company reported that her company owns all of their own equipment and have acquired it over time. She said that that they have purchased equipment with cash, lease buyouts and loans. [#14]

- The white female owner of a DBE-certified specialty contracting firm reported that keeping old equipment in fleet had been a barrier to her firm's success because she had trucks break down a significant distance from any service. She now leases some of her equipment. She owns all other equipment free and clear. She said that she has a maintenance shop to repair equipment. She also said that she values her USDOT number because it keeps her on the road. [#30]

Other interviewees said that they own all their equipment. For example, the white male manager of a majority-owned materials supplier said the firm owned all of the equipment necessary for his business. He reported owning eight trucks total, with five to six usually active on any given day. [#24]

Some interviewees stated that acquiring needed equipment is not a barrier. [for example, #11, #14, #34, #35, #40] Examples of those comments included:

- The white female owner of a non-certified trucking and excavation company reported that her firm was able to purchase all of the equipment relatively easily. They purchased the trucks with cash and they financed the heavy equipment and had no issues getting financing from the bank. She said that she and her husband were really good about saving money and they would search online for good deals and go to used equipment auctions. [#36]

Some companies, especially certain types of engineering firms, indicated that equipment is not a barrier because they require little equipment for their lines of work. For example:

- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm reported that a laptop is the only equipment required for her job. [#11]

However, some business owners reported that obtaining expensive equipment is a barrier. They reported that they did not have the cash to purchase the equipment outright and that financing can be a barrier. For example:

- The African-American female manager of a non-certified electrical contractor reported that the barrier to obtaining bids is that there are larger, established firms that already have equipment such as lifts. She said her firm has to rent lifts, which increases their cost, and larger firms are able to outbid them. She also said that they continue to knock on doors and purchase equipment to make their jobs more cost effective. [#20]

- The female owner of a DBE-certified trucking company reported that she could use more equipment but right now they're having a hard time getting financing because they had some financial challenges in 2008-2010 due to the downturn in the economy. She said she's considered some of the loan programs from USDOT but getting money for capital is harder than money for things like payroll through this program. She said that she recently lost two trucks because of lack of financing. [#25]

- The female partner of a DBE-certified surveying firm reported that the challenge she most often faces as a small business is maintaining equipment. She said that it is difficult because equipment gets outdated quickly. It's also hard to maintain her trucks because the field staff is tough on them and they have high mileage because they're driven so often. Updating software is also difficult. She said, "Maintaining equipment is one of my biggest challenges." [#29]

- In reference to barriers to small engineering firms, the white male co-owner of an engineering firm said, "It's hard to afford everything that the big firms have." For example, he reported that the computer programs are expensive and the firms have to be always using them for them to be worth the expense. [#7]

One business owner said that knowing how much equipment to have was a challenge. The female owner of a DBE-certified trucking company reported that she does not want to purchase more trucks because of the uncertainty in the construction market. She doesn't want to oversaturate the market either or overuse her DBE status. [#25]

Access to materials. As with other potential barriers, interviewees reported a range of experiences with access to materials.

Some business owners and managers said that small firms are at a price disadvantage when purchasing supplies For example:

- The manager of a woman-owned supply firm reported that minority- and women-owned companies are typically small businesses and that can be a challenge to them because they may not be receiving the same pricing on materials because they are not buying in the quantities that the larger firms are. [#4]

- The Hispanic male director of a Hispanic advocacy group shared an example … a majority company and a minority company would both call a supplier and be given two totally different prices (20 percent higher for the DBE). [#37]

Obtaining inventory or other materials or supplies was not seen as a barrier to success by a several interviewees. [for example, #3, #12, #34]

In general, minority and female business owners did not report instances of racial or gender discrimination by suppliers. Anecdotal evidence of disadvantages for minority- and women-owned business in obtaining materials and supplies in many cases related to the size, credit, and capitalization of those firms.

Financing. As with other issues, interviewees' perceptions of financing as a barrier depended on their experiences. To some it was a barrier, and to others it was not.

Many firm owners reported that obtaining financing was important in establishing and growing their businesses (including financing for working capital and for equipment), and surviving poor market conditions. For example:

- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm said, "Financing was a little challenging at first and it still is because I'm trying to get a line of credit. You have to have a positive cash flow for two years straight to get a line of credit. So I'm finally going to have that after this year. It's been really hard because to get a capital loan to start a business, it was really hard. If you are SBA-certified you can get a loan but SBA certification takes a long time. You can get help from the small business office to do it but there's a lot of paperwork to do it." [#11]

- When asked about disadvantages for minority-owned businesses, the African American director of a minority development agency said, "Access to capital — there is a need for money when you're operating in a system that's based on capitalism, when you have a situation where banks aren't making the loans to minority businesses. We need money to make money just like everybody else." [#23]

Some firm owners and managers reported that obtaining financing was not a barrier, and some said that it was. Differences in answers were in part attributable to whether firms were construction or engineering companies, and whether the businesses were well-established. For example:

- The female partner of a DBE-certified surveying firm reported that her firm has had no issues with financing because the company was established when she purchased it. [#29]

- The white male partner in a non-certified engineering firm reported that financing has not been much of a barrier. They had to tighten their belts around 2006 and work a bit harder to find work but they weathered it just fine. [#32]

- The female representative of the Las Vegas Asian Chamber of Commerce reported that members have access to financing because of their networks from the Chamber. The Chamber has member banks. [#33]

- The white male partner in a majority-owned transportation engineering firm reported no difficulties obtaining necessary insurance or credit. He also remarked that as a design and planning firm they had few assets and relatively little credit, but did not consider this a problem. He said that it was "pretty much a cash-based business." [#38]

- The white male owner of a service disabled veteran small business-certified supplier and general contracting company stated that his firm has been able to get the financing they require, but acknowledged that many companies haven't been as fortunate. [#42]

Some of the other owners and managers of minority- and women-owned construction and engineering firms indicated that obtaining financing is not a barrier. [for example, #3, #14 and #15]

A number of business owners and managers said that obtaining financing was and continues to be a barrier for their companies. For example:

- The Hispanic male co-owner of a construction company reported that one major issue he faces is financing. He said that the Contractor's Licensing Board sets limits on the size of job a contractor can bid on. In order to meet these requirements, they borrowed some money and had friends help them put $20,000 in the business account. He said that his firm is licensed up to $200,000 per job, making it ineligible to do jobs over $200,000. He said that he would love to take on larger jobs but there's no one who will back them financially without wanting a part of their company. [#1]

- The African American proprietor of a DBE-certified general building contracting company said, "I'm qualified to do contracts up to $250,000. That is my bid limit." However, he reported that he has never had a job that reached his contracting limit because he does not have enough financial resources to up-front a project that large. [#12]

- The Native American male owner of a DBE-certified electrical contracting company reported that financing has been a challenge in the recent past. He has not been able to secure any lines of credit with his new bank. He had a $650,000 line of credit with his previous bank and a $450,000 line of credit with the other. A line of credit helps his firm front or finance a job before they get paid for it. He said that he has to use a lot of subcontractors now that he does not have the lines of credit he used to and he is losing profit by not being able to do the work themselves.[#34]

- The Hispanic male director of a Hispanic advocacy group said, "Let's look at the requirements to do NDOT work. You have to have a good revenue base in order to acquire the kind of equipment you need to work on NDOT projects." He said that new starts aren't going to be able to access the capital it takes to do that and small businesses don't have the access to the capital it takes to grow. "So there has to be a genuine commitment from the FHWA and NDOT to open the door for these disadvantaged companies," he said. [#37]

- The representative of a Hispanic-owned non-certified construction company said, "We have knowledge to run jobs but financing is a barrier and our limit is one too. We are a self-financed company and we do not bite off more than we can handle. In time we want to expand and grow for bigger jobs." [AI#17]

Some business owners explained the connection between personal assets and the ability to obtain financing. For example:

- The Asian Pacific female owner of a SBA- and DBE-certified environmental company said that getting a line of credit was difficult because it is hard to isolate the business finances from her personal finances as a small business. Nevada State Bank advertises that they help small businesses but her firm had a hard time getting credit from them and she had to put up personal money to obtain financing. She said that she could probably do more business if she had a line of credit. [#16]

- The representative of a construction association said that there is little division between an owner's personal finances and company finances. [#17]

Some interviewees reported that their companies had never tried to obtain financing.

- The minority co-owner of a general contracting and procurement firm reported that his firm has not yet had a need to obtain financing. He said that they have a good relationship with their banks. They keep a cash reserve in their bank account to front future jobs. They can only do small jobs because they don't have enough cash reserves to front the large jobs. [#15]

- The white female owner of a DBE-certified civil engineering firm reported that there were no problems with finances when opening the business because she and her partner had work to bring with them. [#31]

Some minority and female business owners reported no instances of discrimination in obtaining financing. Many business owners indicated it was difficult for small businesses to obtain financing, and that the ability to access business loans was affected by personal wealth. (However, business size and personal equity may be affected by race or gender discrimination.)

Bonding. Public agencies in Nevada typically require firms working as prime contractors to provide bid, payment, and performance bonds on public construction contracts.

Some interviewees reported little or no problem obtaining bonds, or that bonding was not an issue because of their type of company. Examples of those comments include the following:

- The white female co-owner of a non-certified construction company reported that her firm has a $10,000 bonding limit in the form of a license bond. She said that she has not needed to provide bid, performance or payment bonds because her business provides a service. [#14]

- The white male President of a subsidiary of a publicly-traded supplier said, "Very rarely have we been asked to put up material bonds." He said that material bonds guarantee they won't run out of materials. They had to put up a bond at a McCarran Airport job. He said that it wasn't difficult due to the financial stability of their parent company. [#19]

- The white female owner of a DBE-certified specialty contracting firm reported that bonding is not a barrier to her firm. She doesn't bond 95 percent of her firm's jobs. She said that if a private job includes bonding verbiage in a contract, she will usually cross it out and the prime is alright with that. She said that she is required to obtain bonds on NDOT jobs that her firm does as a prime contractor. [#30]

- Engineering-related companies reported that they are not affected by bonding requirements. [for example #15, #11]

- The white male owner of a service disabled veteran small business-certified supplier and general contracting company remarked that bonding was unnecessary until they began to bid as a prime for larger federal projects. He reported that obtaining bonds has not been too difficult, but did notice that as a number of companies went out of business in the economic downturn bonding companies began to require more information and scrutinize bond requests more heavily. [#42]

A number of business owners and managers indicated that bonding requirements adversely affected their growth and opportunities to bid on public contracts. For example:

- The Hispanic male co-owner of a materials supply and DBE-certified general contracting company reported that they are currently bonded around $10 million. He said that some big projects want DBEs to participate in construction projects but they're big and require a bond so you are not able to bid as a prime contractor because the capabilities from your bonding company, even if you are licensed, won't allow you to. He asked, "How do you get to the next level?" Because the bonding companies are only going to give you so much bonding until you get to the next level and you can never get there if you don't get bonding at the lower levels. He said he doesn't think NDOT can help them with bonding issues. [#3]

- The African-American female manager of a non-certified electrical contractor reported that her firm cannot bid on public jobs over $250,000 because of bonding. Her firm is currently applying for a bid bond, and reported that obtaining bonding will help them in the future. [#20]

- The male partner in a DBE-certified, woman-owned engineering firm recalled that his company had considered applying for a general contractors license but that it takes about two years and have to deal with obstacles such as bonding. [#13]

- The Hispanic male co-owner of a construction company reported that he knew about bonding to a point when he started the business, but only focused on getting a bond once their business was operating. He said that he learned that he was not able to get bonding because of his personal credit and a bankruptcy that was on file from 2009. He added that he has the knowledge to do the work, but can't get work because they don't have the bonding. [#1]

- The representative of a construction association said, "Bonding is another problem. We need to help guys get bonds." He said that there are barriers for small firms. Just the cost of CPA-prepared financials can be $1,000, which small firms might not be able to afford. He said that a prime might pay 1 percent of a job for bonding, while a sub could pay 3 percent. The prime does not have an incentive to bond the sub unless the prime makes extra money by doing this (e.g., having the sub lower their bid). He also mentioned that primes sometimes bond themselves or join a coop of other large companies to handle this. [#17]

- The Hispanic male director of a Hispanic advocacy group said that at NDOT, you shouldn't need bonding when you're a subcontractor because the prime has your money all the time. You're only going be paid a percentage after your portion has been approved. He asked, "So why do you need bonding as a sub?" The prime's already bonding the whole project. "The bonding is a barrier for that prime to eliminate and exclude certain people he [doesn't] like. For second and third tier subs, bonding is only an excuse why not to hire you because you know the sub is not going to be able to get bonding." [#37]

- However, the Native American male owner of a DBE-certified electrical contracting company reported that NDOT does not require subcontractors to bond. He said, "That's what's nice about NDOT jobs." He said that he does however, need to be bonded for the work he's done at Nellis Air Force Base. His firm has bonded up to $2 million worth of work. He said that it wasn't difficult to receive bonding in the past, but now, his firm's financials don't look as good, without the lines of credit. He has had to ask his bonding companies to work with him. [#34]

- The chief estimator of a publicly-traded construction company reported that obtaining bonds is not an issue for his firm but he understands that it is a very large issue for DBE firms.[#9]

- Similarly, the female owner of a DBE-certified demolition company reported that bonding posed a serious barrier for smaller companies. In particular, she highlighted that her own bonding company often requires particular bonds from any subcontractor she might hire, and that many subcontractors — and especially women owned subcontractors —can't afford those bonds, even though they are capable of doing the work. She claimed that there had been multiple occasions in which she could not hire DBE subcontractors she would like to because of bonding requirements. [#39]

Some business owners reported that bonding requirements at NDOT preclude their firms from bidding on NDOT contracts. For example:

- When asked about participating in NDOT contracts, the Hispanic male co-owner of a construction company reported that he has only bid on one NDOT job, for $46,000, but they were not eligible because of the bonding requirements. [#1]

Potential for discrimination against MBE/WBEs. Minority and female business owners, in general, said that they did not perceive overt racial or gender discrimination in obtaining bonding. However, size and capitalization of firms appears to have an effect on the ability to obtain bonding.

In addition, the female representative of a bonding surety company said that the creditworthiness is the key determinant in bonding decisions. She elaborated that her firm examines the personal credit of the principals, and determines whether the financial statements are strong in the context of working capital and net worth. She stated that there are typically three areas examined during the bonding process: Capacity of the firm to do the job, character of the principals, and available capital. She discussed Small Business Administration bonding guarantee programs that offer assistance to small businesses and can take into account DBE status. Such assistance, she noted, doesn't affect creditworthiness per se, but does add some type of guarantee to the existing surety. [#43]

Insurance. The study team asked business owners and managers whether insurance requirements and obtaining insurance presented barriers to business success.

Many interviewees reported no instances in which insurance requirements or obtaining insurance were barriers. [for example, #2, #10, #11, #14, #30, #34] Examples of those comments include the following:

- In regards to insurance, the African-American female manager of a non-certified electrical contractor said, "I don't think that it was difficult to obtain." [#20]
- The white female owner of a DBE-certified civil engineering firm said, "Insurance is just a fact of life. You have to have insurance to do business, so we just have insurance." [#31]

One interviewee identified a particular challenge in the requirements of her insurance company. The white female owner of a non-certified trucking and excavation company reported that truck insurance is a challenge in keeping the excavation and trucking businesses classified in the same insurance. The insurance companies want them to be separate. She said, "That is definitely a challenge." In relationship to the mining industry, she reported that her firm is on one vendor list in particular that requests that her firm have $5 million of general liability insurance and they only have $2 million. Her firm is BROWZ compliant and she provides them with her BROWZ report which satisfies the project owner's requirements. BROWZ is a mining industry-standard software program that manages safety, compliance and prequalification data for companies in the construction industry. [#36]

Many interviewees said that they could obtain insurance, but that the cost of obtaining it, especially for small businesses, was a barrier to bidding on work. For example:

- The Hispanic male co-owner of a construction company reported that his firm has basic insurance for the City but some jobs require a $5 million umbrella, which they cannot afford. [#1]

- The female partner of a DBE-certified surveying firm reported that insurance is challenging for her financially. [#29]

Other factors. Beyond the factors identified above, many business owners brought up reasons for business success pertaining to overall management and reputation of the firm.

A few business owners specifically mentioned "reputation" and strong relationships with customers and other firms as factors for continued success. Examples included:

- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm said, "Part of my success is my networking and my personality. I never say 'no I can't.' I figure out a way to get it done." [#11]

- The male partner in a DBE-certified, woman-owned engineering firm expressed that relationships are the biggest key to success. He said that relationships have to be founded on demonstrated capabilities; that in order to be hired by a prime, they need to have worked with you somewhere and you need to be able to relate work you've done with projects they may be working on. [#13]

- The Asian Pacific female owner of a SBA- and DBE-certified environmental company reported that her firm is very customer-focused and provides excellent customer service. This helps her firm be successful. [#16]

- The white male president of a subsidiary of a publicly-traded supplier said, "It's a relationship business particularly because it's commoditized." [#19]

- The white male manager of a publicly-traded construction supply firm reported that the keys to success are the same in his industry whether it's a large firm or a small firm. He said that they have to have the same equipment, manpower, office, support staff, whether the firm is small or large. Because of that, the success comes down to the relationships. [#21]

- The African American director of a minority development agency reported that his clients are professionals and have a good track record. They've been in business in Nevada for a lot of years. They have relationships in place that facilitate transactions. [#23]

- The white male manager of a majority-owned materials supplier remarked that making solid relationships with contractors was key to success in his business. [#24]

- The female partner of a DBE-certified surveying firm said that to be successful, "Communication is a huge key. When we call our clients after an invoice, it's two-fold; first thing is it lets the client know that the work has been completed and there isn't any problem or any question about it. Secondly, it avoids any question later on when they say, 'I didn't get that invoice.' Communication with clients is critical and we have key people that talk to key clients and build a relationship with that client." [#29]

- When asked about the keys to success in business, the white female owner of a DBE-certified specialty contracting firm said, "It really all comes down to one word, relationship." [#30]

- The white male partner in a non-certified engineering firm reported that word-of-mouth and relationships are very important to being successful. He was born in Elko and knows everybody and they know him. [#32]

- When asked about the keys to business success, the Native American male owner of a DBE-certified electrical contracting company said, "As far as our customers, you have to try to be there all the time. It's all about relationships." [#34]

- The white female co-owner of a non-certified construction company said, "I like to think of myself as optimistic and I'm a hands-on person. I can sit in front of you and I want to hear what your project is all about. I wanna hear how you got there. How did you decide to do that building? How did you decide to build that home? I want to know you. I want to know what your objective is. And then I'm going to tell you what my objective is. My objective is your objective. I really, truly believe it's simple, it's straight forward. I do what I do for your benefit and that really has been the success of my business." [#14]

E. Potential Barriers to Doing Business with Public Agencies

The study team asked interviewees about potential barriers to doing work for public agencies, including NDOT. Topics included:

- Learning about prime contract opportunities *(page 45)*;
- Learning about subcontracting opportunities *(page 49);*
- Opportunities to market the firm (*page 50);*
- Bonding requirements and obtaining bonds *(page 51)*;
- Insurance requirements and obtaining insurance *(page 52)*;
- Prevailing wage requirements *(page 52)*;
- Prequalification requirements *(page 54)*;
- Licenses and permits *(page 56)*;
- Other unnecessarily restrictive contract specifications *(page 57)*;
- Bidding processes *(page 57)*;
- Non-price factors public agencies or others use to make contract awards *(page 60)*;
- Timely payment by the customer or prime *(page 60)*;
- Experiences with NDOT regarding any barriers and recommendations for improving NDOT's bidding or other processes (page 65).

Learning about prime contract opportunities. Interviewees discussed opportunities for firm owners and managers to identify public sector work and other contract opportunities, and to market themselves in the in-depth anecdotal interviews.

Many business owners and managers reported that it is easy to market in general and, specifically, to learn about public sector work. [for example, 8, #9, #30] For some business owners, it is more difficult to find out about private sector opportunities. Examples of comments included:

- The Hispanic male co-owner of a construction company reported that his firm has bid on one NDOT job. He said he knows about the NDOT jobs because he signed up for notifications on NDOT jobs under $100,000 and he has also seen solicitations on the NDOT website. He said he found out about the bonding after the bid on the one NDOT job. He said, "[It's easy to find out about NDOT jobs] if you know where to look." [#1]

- In reference to finding public opportunities online, the female partner of a DBE-certified surveying firm said, “We look at what jobs are coming up and what jobs are available but it would be nicer if all the entities would do that instead of just a few.” [#29]

- When asked how his firm finds work, the white male partner in a non-certified engineering firm replied, “We know all the realtors. They seem to know about some of this stuff as quick as anybody.” He said that he also watches the paper and attends his city’s development meeting. The City and County advertise in the paper and they may call him or send him a notice. He said, “[The City and County] try to let the local guys know they’ve got something coming up.” [#32]

- The white male representative of a majority-owned demolition company commented that his firm has no difficulty learning about opportunities, but acknowledged that “it is a homework thing.” He noted that there isn’t just one source to look at; a firm has to pay attention to a variety of different sources of information. He admitted to having people on staff whose job it is to find opportunities and submit bids. [#41

- The white male owner of a service disabled veteran small business-certified supplier and general contracting company reported finding public work almost exclusively using Construction Notebook for state-level contracts and FedBizOpps for federal contracts, and claimed not to have any problem keeping up with possible opportunities. On the private side, he notes, jobs are harder to find and require more research and effort to discover. [#42]

- The white male vice president of a majority-owned trucking and aggregate company said, “Yeah, [NDOT opportunities are] easy to learn about. If you’ve been bidding with them for a number of years you’re on their list. Otherwise, we subscribe to BidSync and some of those companies that send the bids over the Internet.” He said that primes contact them occasionally and they also market by the signage on their equipment. “Our equipment is the number one thing that people talk about.” [#44]

- The white male representative of a majority-owned material supplier and general contracting company stated that learning about upcoming opportunities and bids isn't too hard, but acknowledged that there are several different places a firm needs to pay attention to. In particular, he highlighted direct emails from NDOT and Construction Notebook, and learns about contract opportunities from NDOT emails, Construction Notebook, Demandstar.com. He also noted that, unlike public works, there is a good amount of private work that is not advertised at all, and is primarily discovered through word of mouth from general contractors and previous clients. [#45]

Some business owners said that it was more difficult for smaller firms to market and identify contract opportunities. For example:

- The Hispanic male co-owner of a materials supply and DBE-certified general contracting company stated that the opportunity to find out about jobs could be better because it's hard to know what services and materials are needed in a large job to know whether it's something they would bid on or not. He said, "Maybe there's another system to advertise the jobs." He mentioned that breaking down the large jobs or splitting them up in to smaller jobs may help give smaller businesses opportunities to bid. [#2]

- In reference to learning about contracting opportunities with public entities, the white male co-owner of an engineering firm said, "Relationships were not supposed to be involved, but the reality is it was still there. The only way we could get work was to take every opportunity we could to develop a relationship with whoever was responsible for contracting that work. Without that relationship, you were never going to get a job from them regardless of the objective procedure that was supposed to be in place." [#7]

- The white female co-owner of a non-certified construction company reported that she has gone online and looked at projects but they're intimidating because of the amount of money on the contracts. She asked, "How do I knock on the door and say 'I'm just a little company?'" She said that she is registered with NDOT but not with the prime contractors so it may be more important to learn who the prime contractor is and build a relationship with them. [#14]

- The minority co-owner of a general contracting and procurement firm reported that his firm learns about contracting opportunities via the Clark County website, word-of-mouth, and the Construction Update. He said, "I don't know of any way to look specifically for NDOT jobs. I have no idea. NDOT does freeway, they do highway. They do a lot of stuff that is very interesting to us. The problem is, how do you know about them on the front side so that way you can bid on them? How can we see the upcoming jobs on the regulars so we know about them? And once we do know about them, how are they going to allow us to bid on them? Do we need to be just a regular contractor to bid this stuff or will they allow us to sub everything out like the government does? Those are the questions that we really don't have answers to and that kind of scares me because being a business owner, I don't want to put my company in jeopardy." [#15]

- The Asian Pacific female owner of a SBA- and DBE-certified environmental company said, "Being a small business, you cannot have a full time person just searching for [RFPs]." [#16]

- The African-American female manager of a non-certified electrical contractor reported that she searches for RFPs online and on websites such as www.clarkcounty.gov. The difficulty is that the people that are putting the RFPs

together don't have the construction information and what you do get is limited. There are a lot of unknowns. [#20]

- The African American director of a minority development agency reported that there is access to opportunities to find out about the work. You have to know someone who knows someone to find out about the opportunities in the private sector. NDOT sends out bid notices and does what's required of them by law. [#23]

- The white male manager of a majority-owned materials supplier expressed some frustration in the difficulty of finding out about possible work —there is no single source, and going through the whole text of each contract is too time-consuming. Instead, he reported relying upon contractors to contact him when they needed his services. [#24]

- The white male manager of a publicly-traded engineering firm reported that public agencies will tell them who the firms are that they like to work with and that is who they use. He said that it's very political and small firms don't get hired because they have to have done work with that public agency in the past, in order to get work. He said that there's no way to get their feet in the door. An employee may have done work with NDOT at another firm in the past. Or, a firm that gets ranked well may no longer have employees working there that have done the work for those public agencies. [#27]

  He further reported that NDOT jobs are regularly posted and distributed. If a firm is on the on-call list, when the work comes out, it's automatically shared. His colleague added that right now, all the on-calls are on hold (a year overdue) until the FHWA reviews the selection process. There's supposedly a new Code of Federal Regulations coming out that controls the process. NDOT usually develops a new on-call list every two years and they are now late in doing so. The old list expired at the end of 2012. Until NDOT comes up with the new requirements from the FHWA, they aren't going to advertise for the on-call list and make everybody resubmit. He said that NDOT would previously rotate through the list but the FHWA is now requiring them to do an RFP for all projects. He said, "If that's the case, what's the point of having an on-call list?" The interviewee reported that another firm complained that NDOT was rotating through the on-call list and this is why it's now under review. [#27, #28]

- The white female owner of a DBE-certified civil engineering firm reported that to find out about work, she has to know about the project before it hits the street. Once it hits the street, everyone else already knows about it and she's not going to get enough information on it. She said that it helps to maintain relationships, particularly with NDOT, so that you can know about the projects before they come out. NDOT puts out an internal document of projects that are coming out and where they are. She said that if you can get your hands on it, it's helpful. Or, you can talk to someone in the construction office and ask what projects are coming up. But that requires that one have relationships with the NDOT staff. This is helpful for both prime contractors and subcontractors. [#31]

- The white male partner in a majority-owned transportation engineering firm reported substantial concern regarding the way NDOT project opportunities are shared. Specifically, he noted that there are a number of different project categories a firm may prequalify to bid on and that only firms who have prequalified in a given category are notified of opportunities within that category. Firms that have not prequalified may still bid on a project, and so this serves only as a gating mechanism for learning about such opportunities. He remarked that no other entity he is aware of uses a similar notification strategy. [#38]

Learning about subcontracting opportunities. Interviewees discussed opportunities for firm owners and managers to identify specific opportunities to market themselves as subcontractors.

Some firm representatives found it particularly easy to market themselves to prime contractors. For example:

- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm reported that contractors can go on the NDOT website and get DBE contractors' contact information and they will send her emails with requests to bid on jobs. She also said that that NDOT sends a DBE daily digest of bidding opportunities email. She reported that the plans for current jobs up for bid are available on the NDOT website and they are searchable by key word. [#11]

- The female owner of a DBE-certified trucking company reported that she learns about subcontract opportunities through NDOT's contracting website. She goes to workshops that help her get ideas and connections and she visits RTC's website and the City of Reno and Sparks websites. [#25]

- The white male partner in a non-certified engineering firm reported that the highway projects are always advertised in the paper and that is one of the ways he learns about consulting opportunities. He said, "It's easy to call one or two of the guys that you've worked with and say, 'Hey are you bidding on this contract and does it require any of our help?'" [#32]

- A male representative of an engineering firm reported that the NDOT consultant hired to help introduce DBEs to larger firms is effective. He was able to include one of the DBE subconsultants that he met through this program on a recent proposal. [PM#1]

Others found it more difficult to market themselves to prime contractors. For Example:

- The manager of a woman-owned supply firm reported that when NDOT does work, it's on a larger scale so the materials required are in larger quantities and he's not aware of how to learn about opportunities. He also reported that he feels this is the way it is and he's not sure if NDOT has a responsibility to make it any easier for him to find out about opportunities. [#4]

- The white male president of a general engineering firm reported that subcontracting opportunities on private sector contracts are a little more difficult to find. [#8]

- The female owner of a DBE-certified engineering firm reported that she doesn't know what NDOT is doing to facilitate subcontracting opportunities. Her experience has always been that it's her firm's responsibility. She said that it might be helpful if NDOT sent out emails notifying firms of upcoming projects. [#10]

- The male partner in a DBE-certified, woman-owned engineering firm reported that learning about prime and subcontract opportunities can be a barrier to doing business with public agencies but it is even more of a barrier with subcontracting opportunities because it goes through the prime instead of the public agency. [#13]

- The white male president of a subsidiary of a publicly-traded supplier reported that he learns about job opportunities through publications. He said, "NDOT used to have a capital improvements projects budget that they would mail out monthly and then it became available online and then it stopped and I can't find it. That was a really helpful document. They need to make that available." [#19]

  He also said, "Our goal as sales people is to know about a project before it hits the street and you get that from a loyal customer." [#19]

- The Hispanic male director of a Hispanic advocacy group asked, "How do primes let DBEs know that opportunities exist? You can't call me at two o'clock in the morning to tell me you need a bid at nine o'clock the next morning. You need to make sure there's a good strategic method of DBEs knowing about the opportunities, in particular, CMRs and design-builds because invitations to bid are published in the media." [#37]

Opportunities to market the firm. Firm owners and managers felt that marketing was something that took time and effort that small companies often did not have the time, financial resources or manpower to do.

- The female owner of a DBE-certified engineering firm reported that marketing is something she could do a better job of. She said that she should go down to NDOT and talk to people down there because that's what it takes to earn business but she's not great at doing it. [#10]

- The male partner in a DBE-certified, woman-owned engineering firm reported that developing relationships and going after work (marketing) takes away from the time they can spend working on billable hours and that the larger firms can afford to put more people on marketing than the smaller firms can. [#13]

- The white female co-owner of a non-certified construction company reported that the only disadvantage or barrier to business success as a small business have been exposure for her company. She further reported that the most difficult part was trying to get her name out there with the municipalities and entities that might have

the money in their budgets to hire her company for the projects that they need done. [#14]

On the other hand, companies that are larger or have been in business for a long time have a marketing advantage. For example, the male owner of a non-certified electrical contracting company reported that marketing his firm to NDOT and other public agencies is easy because they've been in business for so long, they have relationships with all the associations and they have many contacts with general contractors. He said, "We can get in to that work with little effort." [#35]

Bonding requirements and obtaining bonds. Public agencies in Nevada typically require firms bidding as prime contractors on public works contracts to provide bid, payment and performance bonds. As discussed above, this can present a barrier for newer, smaller and poorly capitalized businesses.

Additional examples of the barriers bonding presents for public sector work include the following.

- The Hispanic male co-owner of a construction company reported that he has the DBE certification application but had not completed or submitted it due to bonding issues. He said, "We have everything, it's just we haven't really moved forward on it because the biggest thing for us is bonding. So why do we have a certification if we can't get the job because we can't bond?" [#1]

- The African American proprietor of a DBE-certified general building contracting company reported that obtaining bonding is his biggest obstacle to growing his business through public work. [#12]

- The white male representative of a majority-owned demolition company explained that bonding requirements are particularly difficult for small businesses and new businesses. A firm with an established track record has little difficulty obtaining a bond — and sometimes doesn't even need one when working as a subcontractor. A new firm though, he said, can often have great difficulty obtaining a bond because they don't have a history of reliability. [#41]

- When asked about barriers, the representative of a woman-owned specialty contracting company said, "Only the bonding issue. I think it holds us back from public work. Big companies get bonded and small companies can't so that gives them the opportunity to bond whenever they want and small companies do not have that option." [AI#11]

- The Hispanic American representative of a construction firm reported that bonding capacity is an issue for his firm. He recalled situations where he felt financially capable of bidding a job but the bonding surety company denied his request. [PM#16]

Potential for discrimination against MBE/WBEs. Minority and female business owners, in general, said that they did not perceive overt racial or gender discrimination in obtaining bonding. However, size and capitalization of firms appears to have an effect on the ability to obtain bonding. For example:

- The African American director of a minority development agency reported that one of the biggest challenges a minority-owned business faces is access to capital and the banks are not making loans to minority businesses. He said that the lack of financing is impacting the ability to obtain bonding. [#23]

Insurance requirements. The study team asked business owners and managers whether insurance requirements on public sector projects presented barriers to business success. As discussed above, some said that the cost of obtaining the levels of insurance required by government agencies can be prohibitive for smaller, new firms. Additional comments include:

- The female owner of a DBE-certified engineering firm reported that public sector contracts require heavy insurance. She said for her firm, obtaining insurance is not a barrier to success but that insurance and financing is tough for a start-up firm. [#5]

- The white male manager of a majority-owned materials supplier commented that some contracts require different insurance, and that while that insurance is not difficult to obtain, it can sometimes be prohibitively expensive. [#24]

- The representative of a woman-owned, non-certified traffic control company said, "I would say we have grown quite a bit in the last few years but the cost of things like insurance is a barrier to us." [AI#6]

Prevailing wage requirements. Contractors discussed prevailing wage requirements that government agencies place on certain public contracts.

Many business owners and managers said that prevailing wage requirements present a barrier to working on public contracts. For example:

- The African-American female manager of a non-certified electrical contractor reported that her firm pays prevailing wages if they're on a job that requires it and they have done so in the past. She said that it's hard for a small business to understand prevailing wages and how to pay them. She thinks that she's probably overpaid. She said that there's not a whole lot of literature on prevailing wages and it's difficult to understand. [#20]

- The white male vice president of a majority-owned trucking and aggregate company said, "It is difficult because a lot of times they have a hard time establishing rates on a job. Last year we had three jobs all on the same highway and they all had different prevailing wage rates. It kind of just creates a paperwork nightmare sometimes." [#44]

- The representative of a construction association said that there are stiff financial penalties for mistakes in prevailing wage reports. He said that the first mistake leads to a $1,000 fine, the second mistake can cost up to $5,000 and a third mistake can lead to disbarment. Per-day fines can increase these amounts. [#17]

- The Hispanic American owner of a DBE-certified trucking company reported that Davis Bacon wages make it "very hard for the truck owner to bid because brokers in these areas can supply all the trucking with owner-operator trucks at a low rate." [WT #1]

A few interviewees explained other barriers concerning union requirements, and other negative experiences. Examples of those comments were:

- The white male manager of a majority-owned materials supplier reported that his previous company failed, and that he had been "a union contractor, and the union basically dragged [him] down with them." [#24]

- The female manager of a publicly-traded construction supply firm reported that if a job is non-union, small businesses are able to participate easier and it takes away business from her firm. She said that this occurs more often in the private sector. She said, "[Small companies] do have their share and they can compete on a prevailing wage job if they would like and we cannot touch private work that they're bidding so it goes both ways." [#22]

- The representative of a majority owned excavation company said, "We are a non-union company and this is a right to work state, yet we are forbidden from bidding or participating on some projects because of our non-union status." [AI#2]

- When asked about the barriers the company faces, the representative of a majority-owned materials testing firm said, "Union work and PLAs are a problem in our state." [AI#15]

Several firms said that complying with prevailing wage requirements was not a barrier when working on public projects. For example:

- The chief estimator of a publicly-traded construction company said, "[Prevailing wage requirements are] never a challenge for us. We pay union wages. Sometimes they're slightly more. They are all union. We like to see jobs come out that are prevailing wage because it assures us that non-union folks are going to pay similar wages." He said that the majority of jobs his firm bids are prevailing wage. [#9]

- The female owner of a DBE-certified engineering firm said, "[Prevailing wage requirements are] not an issue. Usually we pay people more than what's required because the people we need have certain educations." [#10]

- The minority co-owner of a general contracting and procurement firm reported that some of the jobs they've done with the government require prevailing wages. He said that if you done any contracting work with the government, you've dealt with prevailing wages and they're not difficult. [#15]

- The white female owner of a DBE-certified specialty contracting firm reported that her firm has no issues with the prevailing wage requirements. Her firm is union and she is required to pay prevailing wages. [#30]

- The male owner of a non-certified electrical contracting company reported that prevailing wage requirements are not a barrier to doing business in the public sector. However, he did say that often makes his firm's bids higher than those of non-union firms who are also bidding. [#35]

Prequalification requirements. Public agencies, including NDOT, sometimes require construction contractors to prequalify in order to bid or propose on government contracts.

Some business owners and managers said that prequalification requirements presented a barrier to bidding on work. For example:

- The chief estimator of a publicly-traded construction company said, "The prequalification you go through with the State [or the County], you should submit something once a year and be qualified to bid on all their work for the entire year without having to submit every single time your business license, your certificate for bidder preference. All that does, all those forms do, is create opportunities for bid protests and non-responsive bids and it's just an absolute…." He expressed that the forms are redundant and unnecessary. [#9]

- The Native American male owner of a DBE-certified electrical contracting company reported that sometimes public agencies don't tell firms that they have to prequalify until they've already bid and then they start shopping numbers around. [#34]

Some representatives of engineering and other consulting firms were critical of prequalification processes in the public sector. Some specifically mentioned barriers posed by NDOT's process.

- When asked about barriers the firm faces, the representative of a majority-owned surveying company said, "We used to be a qualified sub for NDOT. They made the qualification process so complicated that we quit submitting. It was a burden to put the package together. [AI#16]

- The white male manager of a publicly-traded engineering firm reported that every project is different and prequalification requirements are not written to draw out the critical information that should be included. He said that there isn't a place in the requirements to submit all of the firm's capabilities. [#27]

- The white female owner of a DBE-certified civil engineering firm reported that firms have to get prequalified before they can submit a proposal and if they don't, they run the risk of having their proposal thrown out and proposals take a lot of time and money to put together. She said, "To get prequalified, you absolutely have to have history doing that kind of work that you're trying to get prequalified for. The firm does. Not the person, the firm has to." To get on the prequalification list, the firm has to be lucky enough to team with another firm that already has an NDOT job. If a firm uses another firms name and experience to get the job, then they don't use them, it doesn't help at all. [#31]

- When asked if prequalification requirements were a barrier to DBE firms, the Hispanic male director of a Hispanic advocacy group said, "That is an issue because a lot of small guys have a very limited resume." He recommended that a good supportive services consultant is needed to assist those DBEs to fill out the forms properly because there's certain verbiage that is necessary on those forms that is industry related. He said that if you haven't had that experience, you don't use the right verbiage and you get eliminated. [#37]

- The representative of a majority-owned engineering firm said, "As a design firm, often times we are requested to submit our qualifications to a standing SOQ that is then ranked and utilized for a period of one to two years. This process on the surface seems fair, but can be misleading to the rank of the firm based on staff when that staff moves to another firm." [AI#18]

- The representative of a majority-owned engineering firm said, "As an engineering firm, selection is based on qualifications. Due to the lack of recent work, it is challenging to provide project references on state or other agency work within the past three to five years. [I] suggest the experience time frame be expanded to include work performed in the past ten years. Evaluations should be based on related work for other states and agencies rather than only work performed in Nevada. [AI#20]

- The male representative of an engineering firm recalled that 12 to 15 years ago, there were small NDOT projects created for smaller contractors and the large contractors bid on and won them anyway. He commented that as long as there's a prequalification low-bid system, it will continue that way. [PM#1]

Some interviewees indicated that prequalification was not a barrier to pursuing public sector work. [for example, #11, #24, #32, #36]] Examples of those comments include the following:

- The Subcontinent Asian American principal of a DBE-certified engineering firm reported that prequalification requirements are not a barrier to his firm's success because he has so much experience in his field. He said that he is already prequalified with NDOT in his field, but to expand into other areas, would have to hire employees with that experience. [#26]

- The white male partner in a non-certified engineering firm reported that prequalification requirements have not been an issue and he has never done a prequalification. The Elko County School District had a prequalification system but they had been working with the school district for a number of years so they just sent the school district a letter requesting to be on the list. [#32]

- The white male representative of a majority-owned material supplier and general contracting company claimed not to have any particular problems with prequalification requirements, saying that his firm sends out prequalification packages two or three times a week. [#45]

- The female owner of a DBE-certified engineering firm said, "I'm trying to remember if I've ever had to do that …. pre-qualify … I don't think I have." [#10]

Licenses and permits. Certain licenses, permits and certifications are often required for both public and private sector projects. The study team discussed whether licenses, permits, and certifications presented barriers to doing business for firms in the transportation contracting industry.

Many business owners and managers reported that obtaining licenses and permits was not a barrier to doing business. [for example, #13, #15, #42] Examples of those comments include the following:

- The chief estimator of a publicly-traded construction company reported that licensing and permits are not an issue for his firm. He said that the requirements for permits in California are outrageous but not in Nevada. [#9]

- The white male president of a subsidiary of a publicly-traded supplier said, "Vehicular licensing is a challenge because our fleet has shrunk and now we're trying to build it back up a little bit. But it's normal. It's no big deal." [#19]

- When asked if licensing and permits have been a barrier to conducting business for his firm, the Native American male owner of a DBE-certified electrical contracting company said, "It's just part of the business." [#34]

Some business owners said that obtaining licensing or permits can be a barrier. Interviewees explained barriers presented by different types of licensing:

- The white male partner in a majority-owned transportation engineering firm displayed some exasperation with the multitude of licensing requirements, saying that every year you have to obtain a business license for every jurisdiction you want to work in (e.g., state, city, and county) as well as register with the technical registration engineering board. [#38]

- When asked about licensing and permits, the white male vice president of a majority owned trucking and aggregate company said, "Yes, it's been a barrier. We look at the time of year that we register trucks. It's just another area we need to watch. Winter is a lot slower so we won't register a certain percentage of our trucks because they're not going to be working anyway." [#44]

- The white male representative of a majority-owned material supplier and general contracting company remarked that, with the recent name changes to his firm, they had run into a number of issues that required obtaining new licenses from a number of different states and entities. That in itself would not have been a problem, he claimed, except that for the period of time it takes to get a new license they were unlicensed, and therefore unable to bid on any projects. That period of time, his colleague added, can be more than six months. For companies that rely on constantly getting new work, having to spend six months unable to bid on new projects can be very difficult. [#40, #45]

- The representative of a majority-owned engineering firm said, "Nevada has some of the stricter requirements for getting licensed. It is hard for someone just starting out to get licensed and up and running." [AI#10]

- When asked about barriers, the representative of a majority-owned excavation company said, "The permitting phase. Getting permits takes a long time." [AI#13]

Other unnecessarily restrictive contract specifications. The study team asked business owners and managers if contract specifications, particularly on public sector contracts, restrict opportunities to obtaining work.

Many owners and managers indicated that some specifications are overly restrictive and present barriers. [for example, #8] It appears that some businesses choose not to bid or are precluded from bidding due to what business owners and managers perceive to be overly-restrictive contract requirements. Examples of those comments include the following:

- The male partner in a DBE-certified, woman-owned engineering firm reported that unnecessarily restrictive contract specifications can be a barrier to doing business. He provided an example that described how county agencies have given his company a contract specific to architectural projects but they're an engineering firm so the contract is not appropriate. The public agency does not want to change the contract because of the amount of work it takes for them to resend the contract through their legal departments. [#13]

- The minority co-owner of a general contracting and procurement firm reported that restrictive contract specifications can be a challenge to his firm. He said, "It's almost like they put it in there to favor someone else." He gave an example of a restrictive specification in a City of Las Vegas roadway project [#15]

- In regards to unnecessarily restrictive contract specifications, the white male president of a subsidiary of a publicly-traded company reported that NDOT is a

bureaucracy and is slow to change. When technologies change, sometimes they get applied incorrectly. He said, "There are times where NDOT could listen to the industry a little better." [#19]

- The white male partner in a non-certified engineering firm reported that there have been some contract specifications that keep them from getting a project, mostly with the Bureau of Indian Affairs (BIA). He said that the BIA hires only Native American -owned businesses but no one has control over that. [#32]

Bidding processes. Interviewees shared a number of comments about bidding processes.

Many business owners said that bidding procedures presented a barrier to obtaining work. Examples of those comments include the following:

- The manager of a woman-owned supply firm reported that the public bidding requires a lot of paperwork and it is important to read every line of the bid documents. [#4]

- The white female owner of a non-certified trucking and excavation company reported that her firm does not have to submit bids when doing trucking work but does have to submit bids on the excavation side of the business and that is a challenge. She said that putting the bids together in the correct format is difficult. It's more difficult for larger jobs and it's tough knowing how to format the bids the way that the big project owners would like. [#36]

- The female owner of a DBE-certified engineering firm reported that in 2008, her firm did a huge push to try to get on the general bidders list for several public entities including the cities, county and NDOT, submitted several bids and didn't get on any single bidders list. She said that the only firms on the bidders list were the established, large firms. She also said that she would have liked to have been given a phone call that told her why her firm was not selected and did not qualify. [#5]

Some interviewees said that tight deadlines to submit bids create a barrier to bidding. For example:

- The white male president of a general engineering firm reported that NDOT does not give prime contractors enough time to bid the bigger jobs. He said that NDOT gives primes three weeks to bid, no matter what the size of the job is. On a $30 million job, prime contractors need a month to five weeks to gather all the information. He reported that his firm has expressed that and NDOT is not flexible at all. [#8]

- The white male manager of a publicly-traded construction supply firm reported that the bidding process can be barrier to his firm's success because the addendum notifications come out the morning the bid is due or the night before it's due. He said, "If we could get rid of that problem, like make it mandatory that there's at least a two-day notice on the addendum, if there's a potential modified bid date, maybe

just put out a notice that there's a potential they're going to move the bid date so that everybody can be aware and maybe address their bid properly." [#21]

Several business owners said that the time and expense to putting bids or proposals together negatively affects small businesses. Examples of those comments include the following:

- The female owner of a DBE-certified engineering firm said, "[The bidding process is] time consuming. It's another reason to think twice about going after some [jobs] because you don't get paid for any of that time you spend putting together proposals." [#10]

- The white male partner in a majority-owned transportation engineering firm reported serious financial barriers for small businesses working with NDOT. Specifically, the cost of producing a project proposal (reportedly upwards of $10,000) can prevent a firm from even attempting it — and certainly forces small businesses to be very selective about the proposals they do produce. He claimed, however, that larger businesses can afford to have teams dedicated to writing proposals and are therefore much less selective about when they choose to pursue a project. The end result is that more NDOT contracts go to large international businesses than to smaller, local firms. He also noted that the limited time frame given to write a project proposal – approximately 30 days – can be difficult for small businesses without dedicated staff and infrastructure in place to produce the proposals. [#38]

- The white male representative of a majority-owned demolition company noted that the bidding process for public sector work is very cumbersome and can in some cases make it impossible for smaller firms to participate. In particular, he highlighted the fact that the RFP process can cost a firm anywhere from $5,000 -- $15,000 just to submit a proposal — something a small firm simply cannot afford to do. He claimed that small firms sometimes work very hard to submit any proposal at all, but that their proposals are often of lower quality due to a lack of resources rather than any deficiency in skill. He noted that the high proposal costs often lead even his own firm, a relatively large and successful one, to walk away from bidding opportunities unless they have a very good chance of winning a contract. [#41]

Some business owners said that it was very difficult for them to submit bids or proposals and win public sector work, including NDOT projects. Examples of those comments include the following:

- In regards to the bidding process, the white male partner in a non-certified engineering firm said, "A lot of it is just fanfare." He further explained that statement by saying that a county advertised that "they were looking for a new county engineer and acted like they were interested in getting a new county engineer but what they were really interested in was going through a bunch of red tape to retain the one they already had. [The bidding process is] time consuming but it's the law. It's public money. They have to do that. It's the same for me as it is the competitor." [#32]

- The male owner of a non-certified electrical contracting company said, "The only thing I can say that would be helpful is just getting to know about the projects coming out to bid where we have enough time to bid them. A lot of jobs get out there and we don't see them until the last minute and that becomes an issue because we're scrambling to get them out there on time." [#35]

- The Native American male owner of a DBE-certified electrical contracting company reported that he stopped bidding NDOT work because he wasn't getting any work from them. [#34]

Several interviewees reported no problems with the bidding process. [for example, #29, #30, #36, #38, #44] Specific comments included:

- The Hispanic male co-owner of a construction company reported that he has no issues with the public bid process. He said he has experience with this process from his previous employment. [#1]

- The white male president of a subsidiary of a publicly-traded supplier said, "The bidding process is not a challenge for us. Frankly, it's mundane." [#19]

- The Native American male owner of a DBE-certified electrical contracting company said, "NDOT is pretty straight forward. It gives you quantities and you just plug it all in there. Private, they just give you the set of plans. It's just time consuming more for the private. But as a sub, that's what we do." [#34]

- The owner of a DBE-certified law firm reported that she has proposed on two NDOT projects since becoming certified in June of 2013. She wrote, "The requests are significantly tailored and undoubtedly restrict the ability of DBEs to participate in the proposal process." She provided examples requiring the firm to have an office in Washoe County and "lengthy experience in specialized areas." She wrote, "If DBEs are never given the opportunity to perform, we will never obtain the requisite experience to qualify for work of this type." She further recommended that DBE firms be paired with larger law firms for these types of projects so that the DBE firms have the opportunity to gain the experience. [WT #2]

Non-price factors public agencies or others use to make contract awards. Public agencies select firms for some construction-related contracts and most professional services contracts based on qualifications and other non-price factors. Several firm owners and managers made observations about those factors.

- The white female owner of a DBE-certified civil engineering firm reported that the biggest challenge she faces is competing for actual work. NDOT has projects and comes out with an advertisement. She said that when a small firm submits a proposal, the firm may not have the project history needed. Individual employees may have the experience from past projects at other firms but because they did not complete the project under the proposing firm's name, they are unable to include the experience. Small firms also have smaller staff. They can add resources if they

need them but when they bid, they don't have the employees to show on paper. A big firm can show other people even though those employees will never work on that project. The public entities rate the proposing consultants on a point system that is based on their qualifications. The firm with the most qualifications, on paper, wins the job. She said that this is one of the biggest barriers for her firm in doing work with a public agency. [#31]

- The male partner in a DBE-certified, woman-owned engineering firm said, "NDOT's very difficult because their formal bidding process is very difficult to tap in to because we don't have the relationships with anybody at NDOT." He expressed that without a detailed firm resume, it's extremely difficult to win the job as a prime and trying to get on informal bidding lists. He reported that it's very important to get to the right person that maintains that list and convince them. He said that they've been told the informal bidding list doesn't exist by public employees but they know that it does exist. [#13]

Timely payment by the customer or prime. Slow payment or non-payment by the customer or prime contractor was often mentioned by interviewees as a barrier to success in both public and private sector work.

Many interviewees said that slow payment by the customer or a prime contractor is an issue and can be damaging to companies in the transportation contracting industry. Interviewees reported that payment issues may have a greater effect on small or poorly-capitalized businesses. [for example, #35, #38] Examples of such comments include the following:

- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm "As a sub, a three-month lag [in payment] is a lot for a small business but that's the way it is. You work for the first month and then you don't bill at the end of that month and then the agencies don't pay for another 30 days, although with NDOT it's two weeks." [#11]

  She also reported having only one negative experience with collecting payment from a contractor. She recalled that they paid 50 percent up front., then delivered the work and wasn't paid. She took them to small claims court and won the case and was ultimately paid. [#11]

- The male partner in a DBE-certified, woman-owned engineering firm reported that timely payment can particularly be a barrier to success when working for large prime contractors because they don't want the subcontractor to invoice them until a certain date and they've have had to go 90 days before receiving payment. [#13]

- The minority co-owner of a general contracting and procurement firm reported that one challenge with working with government entities is that they are slow to pay. He said that sometimes it takes 120 days before they received payment which is very difficult as a small business. He also reported that the paperwork involved in government contracts can be a headache. He said that it would be helpful if things

were more streamlined than they are. He also said that they are not currently bidding on larger projects because they can't afford to front the cost of the job. [#15]

- The Asian Pacific female owner of a SBA- and DBE-certified environmental company reported that she has had some issue with slow pay in the private sector. She said that it's about a 60-day turn around because the contractor or consultant has to get paid before they pay her firm. She has not had any contracts with NDOT so she is unaware of their payment practices. [#16]

- The African-American female manager of a non-certified electrical contractor reported that sometimes contracts require lots of paperwork in order to get paid and sometimes people can take a while to pay. She said that her firm has one client that is slow to pay. [#20]

- The white male manager of a majority-owned materials supplier claimed that the biggest difficulty he encounters working with contractors is being paid on time. He suggested that, although contractors are technically required to pay their subcontractors and daily contractors within ten days of being paid themselves, they often take much longer. He further noted that reporting a contractor for late payment would most likely result in never receiving any more work from that contractor, and that the loss of all that potential future income was simply not worth it in most cases. He said that once a complaint was lodged regarding payment delays—either from a company or from NDOT itself—the issue was quickly resolved. [#24]

- The female owner of a DBE-certified trucking company said, "Being small has [had] a lot of challenges. We go out on jobs and we don't get paid for anywhere from 30 to 60 to 90 days. Within that, we have fuel that we have to pay for, payroll that we have to pay for. Sometimes it's hard having to go so far out and being able to cover that stuff until we get paid. It's always been kind of a challenge." [#25]

- The female partner of a DBE-certified surveying firm reported that subconsultant work is pay-when-paid, which is difficult for her firm. However, she understands that it's the nature of the beast but she says that she always looks at the contracts carefully. She said that it's usually 60-90 days before they receive payment when working for a prime contractor. [#29]

- The white female owner of a DBE-certified specialty contracting firm reported that getting paid by the contractors is a challenge that her small business faces regularly. Sometimes it takes several months to get paid by the prime contractors and she said that sometimes she has to almost beg for her money because they will tell her they don't have her billing and she has to send the bill multiple times in various different ways. [#30]

- The female owner of a DBE-certified engineering firm said, "[Public agencies] can be difficult when it comes to things like billing. We're a small company. We don't have someone who's dedicated to billing. Whereas the public sector [does] and they can spend all the time in the world and be as picky as they want to about billing things whereas that's just time wasted that we can't charge. That I found very frustrating." [#10]

- The female manager of a publicly-traded construction supply firm said, "[That's] a tough subject right now. Part of the success is to know the public owners, to know what the pay cycles [are], to know they know about us. I always like to be listed on jobs and I always like to be acknowledged as a subcontractor. It helps in all these areas. It helps us be recognized as a supplier for NDOT. We need to have the owner acknowledge who the subcontractors are and what they do." [#22]

- The Native American male owner of a DBE-certified electrical contracting company reported that it's very hard to get paid when subcontracting public work because the prime contractors don't pay the subcontractors until they get paid. He said that he pays his subcontractors when his firm gets paid and if he gets his billing in to the public agencies, they pay him within 30 days but payment hasn't been as timely when he works as a subcontractor because the prime doesn't pay his firm until they get paid by the project owner. [#34]

- The female owner of a DBE-certified engineering firm reported that the only issue she's had with timely payment is with billing. She said that sometimes, the billing department doesn't agree with the way her firm reports their billing and it takes a long time to work it out which delays payment. [#10]

- The representative of woman-owned specialty contractor said, "The biggest problem and barrier in Nevada is getting paid in a timely manner. This has been the biggest barrier to growing my company. The majority of the jobs I do, I work as a subcontractor to a prime who is being employed by NDOT, Clark County or City of Las Vegas and I still do not receive a mobilization fee or a first payment for 90 days. Also, after the first payment is made, a lot of prime contractors still do not pay for 45-120 days thereafter. As a small woman-owned business, this makes it almost impossible to grow, obtain credit, or keep employees employed by not having a reliable income and cash flow but still having constant work. This leaves me doing most of the work myself so therefor unable to grow or keep employees in fear that I cannot pay them in a bi-weekly or even monthly manner. This is by far the biggest barrier to all small subcontractors in Nevada and I have discussed this with many other businesses like myself." [AI#25]

Business owners and managers mentioned excessive retainage and delayed final payments on contracts as concerns. Examples of those comments include the following:

- The white male representative of a majority-owned material supplier and general contracting company expressed approval for NDOT's policy of paying contractors every two weeks, as well as the fact that they cap the retention at $50,000. His colleague noted that losing a retention because the company holding it goes bankrupt can really hurt a firm. They both agreed that cash flow is one of the biggest issues firms deal with. Further, they highlighted the cost to firms of having large sums of money on retention for months or years at a time. [#40, #45]

- The white male representative of a majority-owned material supplier and general contracting company reported timely payment from the state except in the case of change orders. He said that change orders are incredibly slow and can take months to get resolved. [#40]

A few business owners and managers said that payment was sometimes more difficult on private sector contracts than public sector work. Examples of such comments include the following:

- The manager of a woman-owned supply firm reported that payment is the biggest hurdle in the private sector because firms will say that they'll pay them when they get paid so his firm is carrying a financial burden on the project. He said, "Receivables is a huge, huge burden for us." [#4]

- The white male president of a subsidiary of a publicly-traded supplier said, "The nice thing about working with the public is that the money is always going to be there and it's going to be timely." However, he said that they have gone to court to collect money from private sector jobs on occasion. [#19]

- The white male partner in a non-certified engineering firm reported that he has had issues with slow payment on the private side. Sometimes it takes the mines 90 days to process payment. Has not had any challenges getting paid from public agencies. [#32]

Some interviewees specifically mentioned "dishonesty" or unethical practices of prime contractors when discussing difficulty of being paid as a subcontractor. Some interviewees pointed out how prime contractors could unfairly take advantage of subcontractors:

Some interviewees specifically mentioned slow payment on NDOT projects to be a problem. They reported that primes had been paid, but then unfairly held payments from subcontractors:

- The white female owner of a DBE-certified civil engineering firm reported that timely payment has not been a large issue for them although she knows it's put others out of work. However, she reported that NDOT does not pay timely. She said that NDOT is required to pay within 30 days of receiving the correct invoice but they will sit on the invoice for 30 days and then say the invoice isn't correct and

send it back for correction. She thinks that NDOT should process the invoice immediately so that errors can be corrected quickly and contractors can be paid timely. She also said that people have made recommendations but if they don't have a champion at NDOT, nothing is going to get done. She went on to say, "A lot of it depends on who the project manager is." Even the big firms complain about NDOT's slow pay. One global firm told her that NDOT was their worst paying client, around the world. She also said that she didn't get paid for six months on one of the projects she worked on for NDOT. She finally had to call them and tell the she couldn't do any more work until she got paid because they couldn't afford it anymore. NDOT found out an employee in the office was just sitting on the invoice and never paid them. He's no longer with NDOT. She said that recently, they've been paid within 60 days but it should be more like 30 to 45. Now she stays on top of it and calls after about three weeks to find out where it's at in the system. Most other local governments pride themselves on their prompt pay. [#31]

- The Hispanic male director of a Hispanic advocacy group recalled that when he used to do consulting services, a DBE would call him and say he hadn't been paid. He would then call the prime and the prime would say he hadn't been paid on that portion of the job yet. Next, he would call NDOT and ask them to audit the prime. Within a few hours, the DBE would get a call from the prime saying his check was ready. He said, "It's a team effort. It has to be a team between the DBEs, the primes, NDOT, FHWA and consultative services." [#37]

- The white male partner in a majority-owned transportation engineering firm reported a usual 60-90 day delay on payment from NDOT, though he qualified that statement by saying it was true "as long as you get a good, conscientious NDOT project manager." [#38]

- The white male owner of a service disabled veteran small business-certified supplier and general contracting company noted that state and NDOT can take 60 – 90 days to pay second- and third-tier subcontractors like his firm, which he said can be difficult. He claimed that this sort of delay is fairly common even in the private sector. He stated that such a long delay can lead to serious difficulties, and that quicker pay turnaround would be very helpful. [#42]

- The representative of a woman-owned non-certified specialty contracting company said, "The payment process is a barrier from the general contractor to the subcontractor. NDOT may pay the general contractor in a timely manner but the process needs improvement to ensure that the subcontractor receives payment per contract specifications. [AI#1]

- The white female representative of an erosion control company reported that smaller firms are having difficulty getting paid by the prime contractors. She said that they get paid every three to six months. She said, "Small firms cannot survive like that. NDOT is now talking about going to, instead of paying twice a month, to paying once a month. You're going to just about destroy small contractors, both generals and subcontractors, at that level. I mean you're not going to be able to keep up." [PM#5]

- The Hispanic American representative of a construction firm reported that it would be very difficult for his firm if NDOT went from paying twice a month to once a month. [PM#16]

Some interviewees said that they typically do not have difficulty getting paid on NDOT contracts. For example:

- The white female owner of a DBE-certified specialty contracting firm said, "[NDOT's] pay history is phenomenal." [#30]

Experience with NDOT regarding any barriers and recommendations for improving processes. In addition to factors common to contracting among public agencies in Nevada, interviewees had many comments specific to NDOT processes.

Some interviewees said that NDOT was as easy to pursue contracts with or work for as other public agencies. For example:

- The representative of a construction association had favorable comments about ease of doing business with NDOT. He agreed that NDOT does a good job of advertising work. [#17]

- The white female owner of a DBE-certified specialty contracting firm said that NDOT is outstanding. She also said that they conducted a class for electronic bidding that was very helpful. At the class, all of the NDOT staff provided their business cards and were open to have anyone call them whenever they wanted. [#30]

Some business owners and managers described what they perceived as a lack of business opportunities at NDOT. Examples of those comments include the following:

- The representative of a construction association reported that lack of work is a major problem in road construction. There have been hits on the NDOT budget that has created this issue. There was $150 million taken out of NDOT's two-year budget, and another $120 million that is going for land purchases for a large future project in Las Vegas. "There's no work," he said. He explained that there used to be 50 road projects a year, now there are 14 state-wide. [#17]

- The white male president of a subsidiary of a publicly-traded supplier said, "There's not enough public money being spent on construction." [#19]

- The white male manager of a publicly-traded construction supply firm reported that there are currently very few NDOT jobs. When the town was busy, they would bid one to two NDOT jobs per month. He said that the Nevada State budget was in a deficit and that is what caused the decline in the NDOT work. The budget has recently been balanced and there is now a surplus. He thinks this may lead to more NDOT jobs. [#21]

- The Subcontinent Asian American principal of a DBE-certified engineering firm said that he's been told that NDOT does not have any funds for new projects that would require his services. He also said that there are jobs but there are not any that require DBEs during the design phase so it makes it hard for him to get his foot in the door. NDOT does a lot of the kind of work he does internally and he would like to see more design projects using outside firms instead of NDOT doing it internally. [#26]

- The white female owner of a DBE-certified civil engineering firm reported that finding new work has been challenging this year. She said that there isn't a lot of public money available so there are not many new public projects. [#31]

- The representative of a majority-owned specialty contracting company said, "In the past three years, the primary barrier has been lack of work available in the Northern Nevada area for all types and sizes of projects." [AI#8]

Some interviewees had general comments indicating that NDOT bidding processes were difficult to navigate for firms. For example:

- The male partner in a DBE-certified, woman-owned engineering firm recommended that NDOT could improve their bidding process by advertising who the point of contact was in Southern Nevada. He reported that other than just showing up at their facility, he doesn't know who to talk to. He also said that it would be helpful to have someone that could help him understand their procurement process and be straightforward and up-front about what he needs in order to be qualified to earn work. [#13]

  He further added, "One of the challenges was finding which contractors win a majority of their work. When we talked to NDOT about it they basically said, 'we don't track that. We can't give you that information.' We looked on their website to see who had been awarded work and we were able to find, OK, these are the few contractors that seem to be winning a lot of their work but we don't know if NDOT likes working with them. We don't know if they've got a good reputation with subs and we've been hurt by larger contractors before when they've used our quals to win a job and then we don't get work." [#13]

- The white male partner in a majority-owned transportation engineering firm stated that some entities and NDOT in particular, require that a firm submit a separate proposal for every project. Further, he suggested that this process may put undue

burden on small businesses that can't afford to hire dedicated staff members just for proposals. [#38]

Reducing proposal costs, he argued, would help. Reducing the cost and effort required to get an NDOT contract would greatly increase access from smaller firms that don't have the resources to do expensive proposals. He suggested steps like limiting the size of a proposal to five black and white pages or adopting on-call lists similar to those used by city governments, where a proposal detailing your capability and history as a firm is submitted once every few years and projects are given away based on those proposals. [#38]

- The white male representative of a majority-owned material supplier and general contracting company noted that inconsistent or unclear NDOT billing and bidding documents should be addressed. His colleague insisted that once a particular rule or requirement is included in a document, it needs to be enforced; otherwise, a bid may be too high because it takes into account requirements that it later turns out it didn't need to. [#40, #45]

- The white male owner of a service disabled veteran small business-certified supplier and general contracting company reported that NDOT often includes restrictions on bids to ensure that only firms with very little potential for failure are considered for a given contract. Proposal requirements for federal work are very different, he stated, than proposals for NDOT. He said that NDOT essentially takes the lowest bidder who is properly licensed and bonded. Federal work, by contrast, is evaluated using the best value model. This means, he continued, that a proposal for federal work typically requires proof of technical capabilities, a plan and schedule for the work, and a high quality, well organized proposal. [#42]

- When asked about challenges her firm encounters in learning about work, the African-American female manager of a non-certified electrical contractor reported that as a new business, they're always trying to figure out where to go for the information. She said that it's difficult because there is no transparency and you don't know if you got the bid or why you didn't win the bid. The public entities are required to list who the bidders were and how they fared on the bid. She also said that she doesn't know if they didn't win the bid because they're minority or small or whatever the case may be. [#20]

- The white male president of a general engineering firm reported that unbalanced bidding is an issue that they experience when bidding on NDOT projects. He explained that unbalanced bidding is when NDOT supplies all the bid quantities and then the prime contractor reviews the project specifications and there are more items needed than listed in the bid quantities, so the firm may bid a high amount per item because they know they're going to need a lot more and have to get paid for a lot more than initially planned. This also happens in the opposite when there is a large quantity on the bid and the prime knows they're only going to need one, so they bid super low per item. He recalled that when this was brought to NDOT's attention, they told them there's no such thing as unbalanced bidding. [#8]

Some interviewees said that NDOT prequalification was complicated. For example,

- The white female owner of a DBE-certified civil engineering firm reported that other small businesses don't understand the NDOT processes. She said that it depends on who you talk to at NDOT as to what kind of answer you get. For example, a lot of people don't understand the prequalification process and the processes are muddy and confusing. They don't like to think about how to make it understandable to anyone who has never worked with them. She said that their website does not help. She thinks it needs to be simplified and cleaned up. She doesn't think anyone could figure out how to get on their prequalification list by reading their website. [#31]

Some interviewees commented that size of contracts at NDOT presented a barrier to bidding, or that it was difficult for smaller firms to get work with NDOT. For example:

- The male partner in a DBE-certified, woman-owned engineering firm reported that NDOT's contracts get bundled in to big packages and typically goes to the most qualified (usually the biggest) firm so it's difficult to compete as a small business. [#13]

- The African American director of a minority development agency reported that the current challenges his clients face are access to opportunity and capital. He said that they are being marginalized to the degree that they can't function in the mainstream and marginalization happens when contracts are made so large that only two or three companies can bid on them and if those two or three companies self-perform, there's no room for a small or disadvantaged contractor. [#23]

- The Native American male owner of a DBE-certified electrical contracting company reported that he hasn't gotten in to doing much work for NDOT using his DBE because he doesn't have the resources that it takes to do projects that large. He also said that the "big guys" get all the work with the highway projects. He said, "It's not a competition for us. We couldn't do it for what they do it for." [#34]

- The male owner of a non-certified electrical contracting company reported that most of the public jobs are so large that it is very difficult for a small firm to win that type of work. They may be able to do smaller jobs that NDOT has like changing out lights, etc. [#35]

- When asked about the size of contracts creating barriers for DBE firms, the Hispanic male director of a Hispanic advocacy group said that there are very few people that can qualify as primes on highway work. He expressed that even if the contracts are broken down, a lot of DBEs can't qualify as primes. NDOT has to ensure that those prime contractors are fully aware that DBEs are included. They have to have the commitment and somebody's got to monitor that and hold them accountable. He said, "Accountability is the number one issue, not that these percentages are gonna be in place." [#37]

- The female owner of a DBE-certified demolition company reported that small demolition projects her firm would be perfect for often get lumped into larger construction projects. Moreover, she reported that getting those jobs becomes much less likely when that happens, as the larger projects go to larger contractors who often find it easier to do the demolition themselves than the subcontract it out. [#39]

- The representative of a majority owned engineering firm said, "I have worked in Nevada as a professional engineer since 1976. It appears that large projects are designed by out-of-state firms. My firm is small and appears to face discrimination due to our size. There must be small projects that can be given to small local firms. We have been here during the good and the bad times. Many national firms come in during the good times and leave during the bad. How about giving the small engineering firms a chance?" [AI#22]

- The representative of a majority-owned excavation firm said, "There is a perception that NDOT work is only for the large heavy highway contractors. Even smaller contracts seem to be awarded to the same heavy highway contractors. This discourages many qualified contractors from pursuing NDOT projects." [AI#26]

- The white female owner of a DBE-certified civil engineering firm reported that they have not been denied the opportunity to bid but they've been discriminated against a lot because of their size. She said she went to NDOT and told them they've been on their on-call list for quite some time and asked why they hadn't gotten any work. An NDOT staff person told her, "You're disadvantaged because you're not disadvantaged." [#31]

- A male representative of an engineering firm said, "NDOT is a big organization, and they are very hard to work for. And you'll see the prime contractors and the prime consultants that work for them really have to have their ducks in order. Because there's liquidated damages on contracts. They have tight time frames and little guys cannot always meet that. And for somebody little to come in and staff up to do an NDOT project is very, very difficult if they just have to lay those people off six months or nine months later." [PM#1]

- The female representative of the Urban Chamber of Commerce reported that larger design and engineering firms are taking some of the smaller contracts that are a good fit for small firms. She said that it is difficult for the small firms to gain the experience when there are not winning the small contracts first.

- The representative of an environmental firm recommended that there be a separate consideration for smaller firms to provide some of the smaller projects. He added, "Right now, even though it's a $10,000 contract, that's still going, to a large degree, to the larger firm that has hundreds of people, because they're the ones that were able to get the overall two-year master services agreement and on-call contract." [PM#7]

Several interviewees expressed that NDOT is not specific enough in how they categorize their projects and that they don't understand their business. For example:

- The Asian Pacific female owner of a SBA- and DBE-certified environmental company recommended that NDOT obtain more people to analyze the jobs that are being put out to bid so they can understand what the DBE firms are capable of. She would like it if jobs were categorized and called out what services were needed so that they send only the jobs that pertain to her and not the jobs that she has nothing to do with. She said that sometimes it's not even worth looking at communications from NDOT because she knows that the work will not pertain to her. [#16]

- The Subcontinent Asian American principal of a DBE-certified engineering firm reported that he receives emails from NDOT but most of them are for construction projects that do not pertain to him. He said that he also received some info on a bonding seminar which he does not need. The emails are not tailored to his business needs. [#26]

Some business owners who often work as subcontractors had complaints about NDOT's bid processes. For example:

- In response to a question asking the female owner of a DBE-certified engineering firm what her recommendations for NDOT were, she said, "Their RFP was very large. They spent a week putting it together and there were repetitive questions. It would be nice if they would think about the amount of time they're asking people to put in to [the bid]." [#10]

- The white male president of a subsidiary of a publicly-traded supplier said, "All of the NDOT work [in his field] goes to one company …. The perception is that it is politically charged. It's not a low-bid thing." He also said that his firm will survey the demand, the location, and the bidders list before they bid an NDOT job. They won't bid if they know they won't get the job based on who's on the bidders list. [#19]

- The white male manager of a publicly-traded construction supply firm reported that his firm receives a bulletin notification from NDOT four-weeks before the bid is due so that they can prepare to send bids to the general contractor. He said that sometimes the bids are more descriptive than others which affect their ability to bid. He also explained that NDOT does not have their own website that provides bid documents but that would be helpful. There is a company called Construction Notebook that gets the plans from NDOT and they are able to pay to see them. He said that his biggest frustration with the bid process is that NDOT will come out with an addendum the day bid is due, or the morning of, which makes it very difficult. [#21]

- The Native American male owner of a DBE-certified electrical contracting company reported that he thought NDOT worked "kind of backwards" on the one DBE requirement that he fulfilled. He said that NDOT wanted him to take specified

items, which he bought from a vendor, out of the bid because they're not considered the "true cost." He said that he doesn't think that makes sense because once he buys an item, it becomes his and then he sells it to NDOT. [#34]

- The white male representative of a majority-owned material supplier and general contracting company stated he was glad NDOT finally moved to electronic bidding, and would like to see that procedure cleaned up with regards to DBE participation. He described a particular time when his bid submission was late due simply to the confusion of switching back and forth between multiple windows on a computer. [#45]

Some interviewees recommended changes in NDOT processes. For example:

- The white male President of a general engineering firm reported that the project closeout process is challenging. The closeout process is where NDOT finalizes all the quantities and squares up with the prime contractor at the end of the project. He reported that the closeout process can take up to two years to complete. NDOT holds $50,000 out of the contract until the job is closed out which is better than other public agencies who typically hold out ten percent of the cost of the project. [#8]

- The white female co-owner of a non-certified construction company said that she's hungry for knowledge and wants to know how to present her company to NDOT. She recommended that open communication on how the NDOT system works would be beneficial and inviting to small and women-owned businesses. She expressed that she would like more communication from NDOT. She would like to know how can she make her company available and how do they get to know her. [#14]

- The white female owner of a DBE-certified civil engineering firm said, "There's just so many issues there. There's so many opportunities, especially with NDOT. I find it so disappointing. They're a mess. I hope that [the new director] is making an effort to clean things up. They don't realize they're the big bully on the block. They could choose to look at things from different perspectives and be more helpful and realize that they're a significant, important part of our community here in Nevada and they don't. Until the culture changes at NDOT, nothing's going to change. Measureable work performance standards, standard invoice payments and hold people accountable for it. It starts with the top, saying we need to change our culture here." [#31]

- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm reported that the State of Colorado has a networking group where all of the Colorado DBE vendors get together every quarter and network. She reported that it would be beneficial if NDOT had a similar program and recommended that, each month, a DBE firm give a presentation highlighting what they do. [#11]

- The African-American female manager of a non-certified electrical contractor reported that she would like to be able to level the playing field with prime contractors meeting subcontractors. She said that she really doesn't know how NDOT could do that, but she knows that there is a woman at NDOT that works to bring subs together with primes. She also said it would be helpful to assist smaller companies in writing bonds and that it would helpful if NDOT conducted workshops or provided information on how bonds need to look. [#20]

- The male owner of a non-certified electrical contracting company recommended that NDOT try to get the contractors more involved with what they're doing by conducting quarterly meetings with the contractors they use. [#35]

- The white male partner in a majority-owned transportation engineering firm primarily recommended that NDOT eliminate the prequalification process and adopt an open notification system where a firm simply registers to receive updates and is then always informed of all available opportunities. He reported having heard NDOT employees claim not to even read the prequalification booklet submissions, but rather to simply "look at the cover, and the name of the firm, and say yes." [#38]

Owners and managers of several companies had comments about processes concerning design-build contracts. Examples of those comments include the following:

- The male partner in a DBE-certified, woman-owned engineering firm said, "NDOT is a particular challenge because very little of their work comes out under true design. Most of it's design-build, which means we've got to hook up with a big contractor. So we're a sub to a big contractor. Well now we have to convince that contractor to use us. And trying to get a new contractor to try out a new business without any small business incentives is pretty much not gonna happen. They're gonna go with the same firm they have the relationship with and they've been working with. Where we're able to break in is when there's small business goals on the contract." [#12]

- The white male president of a subsidiary of a publicly-traded supplier said, "I think [NDOT has] gone too far on design-build. The last three major projects that NDOT has had in Southern Nevada have all gone to the same contractor and it's rife with politics. It costs the tax payers money." [#19]

- The female manager of a publicly-traded construction supply firm reported that she likes NDOT work. She said that everything was fine until material prices started going high. NDOT did not have an escalation clause for steel. They had it for other materials. Then, in 2003 or 2004, they added an escalation clause for very selective jobs. Then NDOT would buy the material from her firm. She said that worked but it became a problem when they started seeing the design-build and they couldn't buy the material ahead of time because it was too late to pre-purchase any material so they had to turn in the escalation clause. She said, "The procedure was a flat nightmare that cost us a lot of money." She reported that her firm plans for a bar of

steel two to three months before they actually buy it from the mill. Therefore, with a design-build process, they don't know how much they are going to need when they bid. She said that the process does not work for them and it would make a huge difference if NDOT understood their business. She also said that it feels like she needs to go to NDOT in Carson City and explain their business because they don't get it. [#22]

- The Hispanic male director of a Hispanic advocacy group said that the marketplace is changing because the methodology of solicitation changes with the introduction of CMRs and design-builds. The prime contractor gets the project and then seeks out the DBE to fulfill the goals. He said, "That's too late because the prime already knows who he is going to use because he had to have prices from them to bid the job in the first place." Interviewee #37 recommended that "NDOT require the names of the DBEs to be utilized in that CMR initially so they can be in the initial conversation so they know what's going on how, when and where," or have NDOT specify the line items for the DBEs. He said that design build is the same the way. [#37]

- The white male representative of a majority-owned demolition company reported that design-build contracts are particularly difficult for small businesses. He said that proving you have the ability to both design and execute a project is so tough that he doesn't see how a smaller operation could possibly do it. He also claimed that these barriers to submitting a proposal have led to a major decrease in the number of firms that even bother to submit a proposal on any given contract. [#41]

- The representative of a majority-owned construction contractor said, "NDOT bids out jobs that are far too large. It limits the field to basically only [the large contractor that NDOT works with frequently], which appears to be the intention of NDOT. These "design-build" projects that are $250 mil are basically designed to be given to [that large contractor], which is in no way the correct use of tax payer funds. [AI#23]

- The white female representative of an erosion control company commented that the CMAR process will negatively impact DBEs. She is concerned that she will have to provide financial and personal information. She said, "I think, is outrageous, that they're saying, 'You have enough money in your bank account that you can bid on it,' and they're making that decision." [PM#5]

F. Other Allegations of Unfair Treatment

Interviewees discussed potential areas of unfair treatment, including:

- Denial of opportunities to bid *(page 73)*;
- Bid shopping *(page 74)*;
- Bid manipulation *(page 77)*;
- Treatment by prime contractors and customers during performance of work *(page 78)*;
- Unfavorable work environment for minorities or women *(page 79)*;
- Approval of work by prime contractors and customers *(page 80)*.

Denial of opportunity to bid. The interview team asked business owners and managers if they had ever been denied the opportunity to bid.

Some interviewees claimed that they had been denied the opportunity to bid on projects, although they could not specifically attribute the denial to discrimination.

- When asked if anyone had ever refused her work because of being a women-owned firm, the female owner of a DBE-certified engineering firm reported that once, the largest project of the year came up and they were not allowed to bid on the project. So she called the project manager and he said, "You're not qualified," and it made zero sense to her. He did not say it was because she was a woman but she has no other idea why they would deny them the opportunity to bid. [#5]
- The Hispanic male co-owner of a materials supply and DBE-certified general contracting company reported that occasionally, a prime contractor will already have "their guy" and they won't use anyone new. [#3]
- The female owner of a DBE-certified demolition company stated that, because her firm was not associated with the union, she is forbidden from doing any work along The Strip. [#39]
- The female owner of a DBE-certified engineering firm reported that it is easier to pursue public work than other types of work because there are more women on the other side of the table. In contrast, she said, "It's been a challenge to pursue the mining work." She said that she was only able to develop a relationship with the mines because she was introduced to them while still working for a majority-owned company. [#10]
- The principal of a woman-owned, DBE-certified supplier reported that after making repeated attempts to sell to key staff at NDOT, she reported that they have been "overtly dismissive" and were "not even giving her a chance." "It's a closed system."

She said that one NDOT staff person told her that to sell to NDOT she "had to be already selling to us." She indicated that she attended one NDOT meeting with her male sales person, who she said was "floored by the derogatory comments." [P #1]

Many interviewees indicated that they had not ever been denied the opportunity to bid [for example, #7, #9, #11, #14, #16, #19, #20, #24, #30, #34, #36, #38, #41, #45] Examples of those comments include the following:

- The Hispanic male co-owner of a construction company reported that he has not been denied the opportunity to bid due to the firm's minority status. He said that his lack of opportunity to bid has only been financial or due to lack of insurance or bonding. [#1]

- The minority co-owner of a general contracting and procurement firm said, "No, I've never been told, 'No, you can't bid that.'" [#15]

- When asked if she' ever been denied the opportunity to bid, the female partner of a DBE-certified surveying firm said, "No. If that was the case, it's because they don't know they are a DBE. I don't think anybody has ever said or thought 'no, they can't perform the work'" [#29]

- The Hispanic male director of a Hispanic advocacy group said that you are not going to see anyone being denied the opportunity to bid. He shared an example he's experienced when a majority company and a minority company would both call a supplier and be given two totally different prices (20 percent higher for the DBE). He would then call and accuse the supplier of impeding commerce. He said, "Those things are very subtle. Only an idiot would expose himself." [#37]

Bid shopping. Business owners and managers often reported being concerned about bid shopping and the opportunity for unfair denial of contracts and subcontracts through that practice.

Many interviewees indicated that bid shopping was prevalent in the local construction industry. [for example, #4, #5, #7, #8, #18, #36, #41] Examples of comments include the following:

- The Hispanic male co-owner of a materials supply and DBE-certified general contracting company said, "There are some companies who will really appreciate your bid and they go with that and there are some companies who will call and say you know, so and so has quoted this, can you do that? We stay out of that. Whatever we bid, you know, we bid to everybody." [#3]

- When asked if he had experienced bid shopping, the minority co-owner of a general contracting and procurement firm said, "I would hope not but I have had some jobs in the past that the person has undercut me. I really question the amount they undercut us by to get the job because it's an even amount so it makes me wonder, 'did you see numbers?'" [#15]

- The Asian Pacific female owner of a SBA- and DBE-certified environmental company reported that she has seen bid shopping many times. Often, she will already know the hiring firm is going to give the job to a firm other than hers before she submits the bid. [#16]

- When asked about his experience with bid shopping, the white male president of a subsidiary of a publicly-traded supplier said, "It's constant. It's just the reality with an open market place." He said that his parent company doesn't want any publicity, good or bad and that's part of the culture from their country. He reported that he and his employees go through anti-trust training and there are some jobs they chose not to bid on because they know they are bid shopping. They are aware of which contractors have a tendency to bid shop. There is a contractor that hasn't used them in the past and just started using them. He said he is trying to understand why and there are three possibilities: One is that they are getting bad service. Two is that they are doing a union job and want to use a union supplier and three is that they are working with a competitor and are using his firm so that they can obtain pricing information. [#19]

- The white male manager of a majority-owned materials supplier acknowledge that bid shopping is a relatively frequent practice, and said that his response was often to add 20 to 30 percent to his bidding price, knowing he would not get the contract, just to make the bid shopper a little nervous. [#24]

- When asked if she's experienced bid shopping, the female partner of a DBE-certified surveying firm said, "Oh yeah. When you don't get a job, a prime will call them and say, 'Hey, this firm came in $5,000 less than you. Can you do something about that?'" [#29]

- The white female owner of a DBE-certified specialty contracting firm reported that she has experienced bid shopping in Las Vegas but not in Reno or Sparks. She said that she has had a "feeling" but nothing she can pinpoint and if she gets a feeling that it continually happens, she won't go back to that contractor. [#30]

- The Native American male owner of a DBE-certified electrical contracting company reported that he's experienced quite a bit of bid shopping. He said that he has been told that he has the job and then the next thing he knows they've changed something and said that he doesn't have the job. [#34]

- The white male representative of a majority-owned material supplier and general contracting company stated that bid shopping does go on, at least in a limited form. In particular, he said that even his own firm is guilty of giving firms they know they want to work with an opportunity to reassess their bid. He insisted that they draw the line far short of telling a subcontractor an actual number they need to beat. [#40]

- The African-American female manager of a non-certified electrical contractor reported that her firm does not know for sure that bid shopping exists, but they have their suspicions. She said that she thinks it's happened on a couple of occasions in the private sector. [#20]

- The white male representative of a majority-owned demolition company reported being very careful not to shop or manipulate a bid, but admitted it was fairly common to see that behavior from other companies. He noted that while it happens in both the private and public sector, it is much less common in the public sector. [#41]

- The female owner of a DBE-certified demolition company reported some experiences with general contractors who would engage in bid shopping, but she has learned which ones do that and has simply chosen not to work with them. [#39]

- The chief estimator of a publicly-traded construction company said, "Yes, I've heard of bid shopping by others, never at [my firm]. It's the absolute most important thing to us…that it doesn't exist at [our firm]. The integrity of the bidding process, we talk about it all the time. It definitely exists in the contracting community. We see more bid day cuts. We'll get a quote from a certain supplier, and on most jobs, we'll see a cut from that certain supplier on bid day. It doesn't take a rocket scientist to figure out why they're cutting their bid on bid day." He said that he did not see that happening when he was an estimator and that he thinks that it's a result of tough times and the market being tough. He said, "What's surprising to me is that some of the other estimators in the community are allowing that process to happen. It's disappointing. [My firm], has been one of the top ethical companies for three years." [#9]

Owners and managers of engineering firms also reported that bid shopping affects them. For example, the male partner in a DBE-certified, woman-owned engineering firm said, "There are a few contractors that bid shop. Once we find that they do that, we won't bid with them again.." [#13]

Some owners of DBE-certified firms said that prime contractors sometimes target DBEs for bid shopping. Examples of those comments include the following:

- The Hispanic male director of a Hispanic advocacy group said, "Other companies have what they call internal bid shopping." He said that these large contractors have departments within their entity. A DBE will give them the price on a job and the prime will call the DBE back and say, "Hey, our internal department underbid you on that." He exclaimed, "Of course they underbid me because they get my and my partner's price and then cut it by a dollar and then they get the job. That's bid shopping." He said that primes should have their internal departments submit their pricing to NDOT before or at the same time as the DBE submits theirs. He added, "There is disparities" [#37]

- The African American director of a minority development agency reported that bid shopping is an issue. He said that often times the prime contractor has an internal department that does what a small business person does, and they go out and get bids in addition to their internal department. If the external companies are going against an inside entity, they're fighting a losing battle. He asked, "Did you know that bid shopping in construction is okay in Nevada but it's not okay in any other part of purchasing?" [#23]

Some owners and managers of construction firms reported that they do not see bid shopping. For example:

- The white female co-owner of a non-certified construction company reported that business people talk and say bid shopping is something you need to watch out for but she's never experienced it. [#14]

Bid manipulation. Beyond bid shopping, a number of interviewees discussed bid manipulation.

Many interviewees said that bid manipulation affected their industry, and that it was common. For example:

- The white male co-owner of an engineering firm reported that he's experienced bid manipulation where his firm ends up being a subcontractor to a larger firm who has the skills his firm has but not the experience. He reported that they put his firm on their team for the bid and include their experiences, and then they get the project and don't include his firm in the work. [#7]

- The white male president of a general engineering firm reported that bid manipulation happens often. [#8]

- The Hispanic president of a minority trade association reported that members have complained of bid manipulation in both the private and the public sector. [#18]

- In regards to bid manipulation, the African-American female manager of a non-certified electrical contractor said, "I think that happens." She said that she thinks that because they receive bid requests at the eleventh hour and that the bid requestor is manipulating the bid to get another bidder down in price. [#20]

- The female partner of a DBE-certified surveying firm reported that they experience bid manipulation on occasion. She said that her firm is really good at reviewing contracts and said, "There's certain things you allow and don't allow." [#29]

- The white male representative of a majority-owned material supplier and general contracting company acknowledged that there is some bid manipulation where a contractor in the bidding process may communicate with the clients about something which affect the bid, but that information then doesn't get distributed to any other firms. His colleague qualified that statement, saying they don't believe it's intentionally unfair, just that the inconsistency of it needs to be addressed. [#40, #45]

Some interviewees reported no experiences with bid-manipulation. [for example, #2, #11, #12, #24, #30, #36] Some business owners and managers said that they were not affected by bid manipulation:

- The white male partner in a majority-owned transportation engineering firm reports no manipulation of the proposal process, saying that "NDOT tries to follow their set standard pretty well." [#38]

Some minority and female interviewees report that there may be discrimination but that prime contractors would not be blatant in any discrimination. Examples of such comments include the following:

- The female owner of a DBE-certified engineering firm said, "It's really tough to know why you might not be getting a contract. A lot of times, particularly public agencies, seem to feel going out-of-state to a large environmental consulting firm is safer. They've even told me that to my face." She also said, "I would say it's changing. I've seen it change since the 80's. It's ironic that the work I like less, the environmental work, is much more open to women because they're being required to do what they're doing. They don't have a choice about it; they have to clean it up so they have some agency telling them they have to get it done. The people who are in charge of that are often women so they're much more open to working with women. But in the mining industry, that is more male oriented, is less open but they're getting better." [#10]

- The African-American female manager of a non-certified electrical contractor expressed that no one ever says, "We're not hiring you because you're a minority." You can assume that is why you didn't get work but you never know. [#20]

- The Hispanic male director of a Hispanic advocacy group said that smart people don't show discriminatory behavior outwardly. [#37]

Treatment by prime contractors and customers during performance of the work. Many business owners and managers discussed unfair treatment by a prime contractor or customer.

Some business owners indicated that unfair treatment during performance of work had affected their businesses. Examples of those comments include the following:

- The African American director of a minority development agency reported that he's had clients who have had situations with prime contractors that treated them very unfairly. He said, "It's just downright ugly and they're allowed to do it because here in Nevada, some of the stuff that owners and primes are allowed to do here is almost criminal." [#23]

Some interviewees indicated that unfair treatment was connected with their race/ethnicity or gender. Examples of those comments included the following:

- The Hispanic president of a minority trade association reported that members have experienced racism but she has not specifically. [#18]

Some owners and managers of MBE/WBEs reported that there were double standards for performance of work that adversely affected their companies. Some individuals attributed the double standards to discrimination:

- The female owner of a DBE-certified engineering firm said, "A strong woman faces challenges because she's too strong, she's too overbearing, she's too aggressive. A strong man is a strong man. It's just this very double-sided standard." [#5]

- When asked if she had experienced any double-standards for minority- or women-owned firms, the Asian Pacific female owner of a SBA- and DBE-certified environmental company said, "Yes, of course. You can feel it. More [so] being a minority than being a woman." [#16]

- The female partner of a DBE-certified surveying firm reported that working in her field has not been difficult as a woman except in that wherever she goes, she has to prove herself whereas a man can say what he does and it's accepted. She has to prove what she's capable of to her peers and other managers and owners. She said she has to actually perform in order to prove that she's capable. [#29]

Some minority and female business owners reported that they were held to higher standards, but did not attribute the cause to discrimination:

- The Native American male owner of a DBE-certified electrical contracting company reported that double-standards don't have to do with being a minority and have more to do with money. [#34]

Some interviewees did not think that treatment by prime contractors was a barrier for their firms. [for example, #9, #10, #11, #14, #15, #19, #24, #26, #30, #36, #42]

Unfavorable work environment for minorities or women. The study team asked business owners if there was an unfavorable work environment for minorities or women, such as any harassment on jobsites. Some interviewees, including white men, said that they had heard of it but not experienced it first-hand. [For instance, Interviewee #7] Some business owners said that conditions have improved. [For example, Interviewee #10]

- When asked about an unfavorable work environment for minorities or women, the chief estimator of a publicly-traded construction company said, "I haven't heard much. Maybe I just look at how we treat subs and our own employees. Unfavorable work environments would come to the surface pretty quick. I don't remember ever hearing of or seeing them."

  He went on to say, "My general feel is that probably women in the industry is the most difficult thing to see involvement. In the field you don't see them very often and when you do, there's probably that perception that she can't do what the next guy can do. In the office, we try to diversify our business all the time by hiring women and they're few and far between still. It's been very difficult to evolve over the past few years." [#9]

- The female owner of a DBE-certified engineering firm reported that she was aware of unfavorable work environments for women when she was younger but not recently. [#10]

Some interviewees reported sexual harassment of women on worksites. Comments included:

- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm said, "There's not very many women on the worksite. Yeah, men have said stuff to me, but I just know how to deal with that. I don't engage in some of those behaviors out there and that's how I've been able to survive in the construction world." [#11]

- The male partner in a DBE-certified, woman-owned engineering firm reported that his wife, and firm partner, has run in to some instances where she's needed to have thick skin being in a male dominated industry…. [#13]

Some interviewees said that they had not seen or experienced unfavorable work environments. [For instance, Interviewees #2, #12, #14, #15, #22, #24, #29, #34, #35, #36, #37, #38, #42] For example, when the white female owner of a DBE-certified specialty contracting firm was asked if she has ever experienced an unfavorable work environment, she said, Not at all. I've never come across that." [#30] When asked if she'd ever experienced unfavorable treatment by a prime contractor or customer during the performance of the work, the white female owner of a DBE-certified civil engineering firm said, "No, in fact, anymore, they have the utmost respect for us. We don't have that issue." [#31]

One white male interviewed said that he has not witnessed an unfavorable work environment for minorities or women. He went on to say, I think that the politicians may say that those types of things are going on just so they can keep these kinds of programs in place." [#44]

Approval of work by prime contractors and customers. Interviewees discussed whether approval of work by prime contractors or customers presented a barrier for businesses.

Some interviewees identify difficulty with approval of work by prime contractors or customers. For example:

- The white female co-owner of a non-certified construction company reported that she has seen approval of work by a prime contractor be an issue in the past it but it's never happened to her. [#14]

- When asked about issues with approval of the work, the Hispanic male director of a Hispanic advocacy group said, "It's not up to the prime, it's up to the resident engineer at NDOT." He said that some resident engineers can be tough about approval though. [#37]

Some interviewees did not indicate that the approval of work by prime contractors or customers during performance of work is a barrier. [for example, #1, #3, #11, #15, #18, #19, #29 #34 and #38]

G. Additional Information Regarding any Racial/Ethnic or Gender-based Discrimination

Interviewees discussed additional potential areas of any racial/ethnic or gender-based discrimination, including:

- Stereotypical attitudes about minorities and women (or MBEs, WBEs, and DBEs) (page 81);

- Any "good ol' boy" network or other closed networks (page 82); and

- Other allegations of discriminatory treatment (page 86).

Stereotypical attitudes about minorities and women (or MBE/WBE/DBEs). Several interviewees indicated that minorities, women, or MBE/WBE/DBEs are the subject of stereotypical attitudes. For example:

- The Asian Pacific female owner of a SBA- and DBE-certified environmental company said, "The thinking is the work is more inferior than other work. I don't think so because we get a lot of praises for what we do. I would say in a disadvantaged business or a minority owned business, you really try harder. From that perspective, you try harder and you do a better job because you have to go past that thinking or past that impression from other people." [#16]

  She added that being a woman can be a barrier to success. She said that in government work, the theory is that it favors women or DBEs but that is not always the case. NDOT can always find a DBE for the construction jobs but it's more difficult for the professional jobs because there are not as many DBE professional companies. [#16]

- When asked about stereotypical attitudes, the female partner of a DBE-certified surveying firm, "Yes, over the course of my career I've experienced that a lot. You learn to have thick skin because men on construction sites are what they are and you can't be too sensitive and too overly concerned. You basically have to ignore them and you fit in that way. I never found anyone who was rude or obnoxious. I think part of that comes from knowing my own limitations." She also said that in certain situations, a client will want a male there but once she starts to speak, then it's fine. [#29]

- The female owner of a DBE-certified demolition company claimed to frequently encounter stereotypical attitudes about women in demolition. In particular, she highlighted a dismissive attitude and a belief that she was inexperienced. She was not particularly concerned with this however, saying "You just learn to deal with it." [#39]

- The Hispanic American owner of a DBE-certified trucking company wrote, "I have experienced discrimination even after becoming a DBE; it is a distorted belief the Mexican is a labor worker, and that image is hard for the primes to ignore, and very hard for their supervisors to respect the Mexican." [WT #1]

- The Hispanic American owner of a DBE-certified trucking company reported that he is appreciative that the DBE program at NDOT has gone from race-neutral to race-conscious because under race-neutral he did not receive any work and had been "ignored by every contractor" and told "we do not have to hire the DBE." [WT #1]

Many non-DBE interviewees did not think there were negative stereotypes with being a DBE. For example:

- The white male partner in a majority-owned transportation engineering firm said, "DBEs don't really have disadvantages within this market. Most people will add you to a team because you bring value. If you bring value to a team, they don't really care about your ethnic background. If you can help me win this job, it doesn't matter what you are, because you're bringing value to me." [#38]

Some interviewees reported stereotypical attitudes, but that they did not have a negative effect. For example:

- The female manager of a publicly-traded construction supply firm said, "There are some challenges [to being a woman in her industry]. I'm not going to deny. Very minimal though. I've been doing this 25 years. Three percent of the time of those years, I've crossed somebody that doesn't want to look at me in the eye because I'm a woman. I don't see that it was a huge burden. It kind of gave me an edge sometimes." [#22]

Any "good ol' boy" network or other closed networks. Many interviewees had comments concerning the existence of a "good ol' boy" network that affects business opportunities.

Those who reported the existence of a good ol' boy network included minority, female, and white male interviewees. A number of interviewees thought that the "good ol' boy" network" negatively affected women- and minority-owned firms. For example:

- The Hispanic male co-owner of a materials supply and DBE-certified general contracting company said, "It's hard to get in to the good ol' boy club. This has been going on for 40-50 years." He said that his firm might be a part of the good ol' boy club in some instances, with some companies, but not for the most part. He reported that the old major companies have been bought out, so he may have been part of the good ol boy club in the past, but that has gone away with the buyouts. [#3]

- The white male president of a general engineering firm said, "There's lots of good ol' boy [networks.]" The good ol' boy network works better in the private industry than in the public. [#8]

- The minority co-owner of a general contracting and procurement firm said, "I have been in Vegas for 34 years. I've watched some of the good ol' boys come and go. I know for a fact that it exists especially in the construction industry. It's not a question mark in my mind, at all." [#15]

- The white male president of a subsidiary of a publicly-traded supplier said, "We are the good ol' boys club. It's who we know that helps drives our success. My good ol' boy club is the people who are my gender, my age, that I've known for years that are loyal customers and what will we do? We'll go play golf and drink beer. It's personal networks." He reported that one of the things that his competitor is great at is their relationships with the NDOT hierarchy because they're out everyday building roads with NDOT and at the end of the day they go get a beer together. It's a result of working relationships that become social. It's hard for a minority to break in to that. Once someone gets their foot in the door and performs, that could change. Everybody's looking for people they can trust that can perform the job. [#19]

- The female owner of a DBE-certified trucking company said, "This is a good ol' boy town." She also said that primes will use older established firms because that's who they know and who they're familiar with. She said, "I've had to work kind of hard to get people to know me so they can build confidence that I know what I'm doing." [#25]

- The Hispanic male co-owner of a construction company said, "There's still a good ol' boy system." He said that the good ol' boys are the ones at the county that get all the work. [#1]

- The female owner of a DBE-certified engineering firm reported that the good ol' boy network definitely exists and it's inherent. In the agencies, it's the established firms who have been around forever and have political connections. The agencies get established with them and they keep going back to them. She said, "The agency may not be consciously discriminating but they are in a sense because they just keep going back to them." She also said, "Sometimes I feel like we, as women, limit ourselves. I think that's a big limitation and I do think it's intimidating to try to break in to a big industry of big boys and big everything and it's tough. [#5]

- When asked about the barriers the firm faces, the representative of a construction contracting company said, "There seems to be a prevalence of the "good ol' boy" system here in Nevada. Especially with the NAS Fallon. It is difficult to find out about a job. Then even the contact person doesn't seem to know much about the project." [AI#14]

- When asked about the "good ol' boy" network, the white female owner of a DBE-certified civil engineering firm said, "It does exist. I only know it exists because I hear things peripherally. They're looking for a new executive director at the Airport and there's an ex-trustee who said to me, 'The next one's not going to belong to the skirts club because the good ol' boys are gonna make sure it's not another skirt.'" [#31]

- When asked about the good ol' boy network, the Hispanic male director of a Hispanic advocacy group said, "Of course, that happens all the time. That's only human nature. That happens and you have to allow for that. Just give me a little piece of the action, that's all. You're not going to change that." [#37]

- The representative of a DBE-certified engineering firm said, "If you are not part of the "good ol' boys club" it is difficult to get started with NDOT contracts. Who you know seems to be much more important than what you know." [AI#7]

- The principal of a woman-owned, DBE-certified supplier reported that there is a "good ol' boy" network in Nevada. She hears from others that "it is hard to do anything Nevada because 'it's redneck.'" She has heard from another female professional who had her own business in Nevada that, "If you're not in with the good ol' boy network, you're not in." [P#1]

- The minority principal of an architectural firm said, "The added disadvantage of being African American or Hispanic, or one of those, is that you are not necessarily plugged into a network of information. Information is power and you don't have access to some of the information. Whereas, a friend of yours working in public works could call you up, if you were his fraternity brother or member of his club, or whatever, and say, 'Hey, look out for business coming down the pike.' That's what we fundamentally don't have access to ... that inside information. We don't have the networks that many other people in the majority culture have. And that is the fundamental difference. We really don't have access to that information, of what's coming down the pike, what to prepare for. [PM#6]

Some representatives of large majority-owned firms indicated that even they were disadvantaged by the good ol' boy network in Nevada. For example:

- The African-American female manager of a non-certified electrical contractor reported that she thinks that there is a good ol' boy network but it does not affect their business because they are able to choose who they work with. [#20]

- The chief estimator of a publicly-traded construction company said, "I think there's a good ol' boy network anywhere you look. In the Nevada region, the good ol' boy network is that [my firm] never gets the opportunity to look at a job, although we've been here thirty years … these ranchers here that have been here for 100 years and this company down the street that's been here for 60, the good ol' boy network gets them the job. In other words, we just never have a shot. We could go knocking on their door and they wouldn't give us a shot. It's that good ol' boy network that exists in the private world." [#9]

A few larger majority-owned contractors said that they probably contribute to closed networks. For example:

- In regards to the "good ol' boy" network, the white male partner in a non-certified engineering firm said, "I think to some extent, we all nurture that. We get a client, we want to do a good job for him so the next time he has a job, he calls us." He also said that it may be a challenge for firms coming in from other areas to "shoehorn in to it." [#32]

Some interviewees said there is a "good ol' boys" network, but that it's influence is not as strong today as in the past. For example:

- When asked if she's experienced the "good ol' boy network," the female partner of a DBE-certified surveying firm said, "It was really bad when we first purchased the company. A lot of the cities and counties were basically giving projects to people that they know or that took them to lunch or dinner or played golf with them. We just held our ground and said 'this is what we can do' and they've come around and I think it's been a lot better in the last few years." [#29]

- The Asian Pacific female owner of a SBA- and DBE-certified environmental company reported that she feels the good ol' boy network exists but it was stronger in the past. She said that now with the government programs, it's not as bad as it was. She thinks it's stronger in Nevada than in California. [#16]

- The female owner of a DBE-certified engineering firm reported that she was aware a "good ol' boys" network earlier in her career and she's noticed it mostly at conferences. [#10]

- The white male manager of a majority-owned materials supplier reported that there was once a "good ol' boy" club, but that it had largely disintegrated in recent years. He also expressed doubt that it was possible for such a network to develop again, given the current importance placed on the dollar and lowest bid. [#24]

- The female owner of a DBE-certified demolition company stated that some of the older and larger general contractors still have that attitude, but that the younger generation—people in their 30's and 40's—are much less inclined toward such attitudes and networks. [#39]

Some minority and female interviewees indicated that the good ol' boy network existed but did not adversely affect their businesses. For example:

- The African-American female manager of a non-certified electrical contractor reported that she thinks that there is a good ol' boy network but it does not affect their business because they are able to choose who they work with. [#20]

- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm reported that she's familiar with the good ol' boy network and she knows it exists but she hasn't had to deal with it directly. [#11]

- The white female co-owner of a non-certified construction company reported that there's a good ol' boy network that exists, but she just walks right in to it and act as if she's part of it and it doesn't hurt to ask them for help. [#14]

Some interviewees reported they were not affected by any good ol' boy network or other closed networks or that the good ol' boy network no longer exists. For example:

- The African American proprietor of a DBE-certified general building contracting company reported that has heard the term "good ol' boy network" but has never seen and evidence of it. [#12]

- The male partner in a DBE-certified, woman-owned engineering firm said, "I wouldn't call it a good ol' boys network. Everybody awards projects based on relationships. The people that have relationships are the ones that for the most part, get the work. It's a matter of you just have to prove yourself and you've gotta build that relationship with the agency before they're willing to take that risk." [#13]

Other allegations of discriminatory treatment. The study team also examined other comments about discriminatory treatment.

Some interviewees had other comments about what they perceived as discrimination against minorities or women. For example:

- When the Hispanic male co-owner of a construction company was asked if there were any barriers to starting a business as a minority, he said that he feels he was treated differently when he walked in to the Contractors' Board offices for the A license. He reported that the application asked for four references. Then the

Contractors Board asked for four more, and then asked again for four more so it was up to 12. The woman at the Board was asking for a reference for each type of work they would be doing. He reported that at that point, his wife called and asked to speak to a supervisor. He felt like it was a game for them in at the Contractors' Board and that the woman in the office was trying to get them to apply and pay for each individual license. He said that they determined it was easier to get the A general license than each individual license. They made friends with the supervisor and eventually received their license. [#1]

- The Asian Pacific female owner of a SBA- and DBE-certified environmental company reported that she feels it is harder to assimilate in a white society. She said that if you are European, it is easier to assimilate because they don't look any different. [#16]

- The African American director of a minority development agency said, "I would say that being small and being a minority-owned firm is a harder impediment to overcome than being small and a majority-owned firm. That's just the nature of things. That's just the way it is." [#23]

- The white female owner of a DBE-certified civil engineering firm said, "As a woman in this industry, you have to be tough because otherwise, they think they can take advantage of you." [#31]

- The principal of a woman-owned, DBE-certified supplier reported that she has repeatedly attempted to sell her equipment to NDOT, prime contractors that work on Nevada road projects and Nevada mining companies without success. She attributes this lack of success in Nevada to (a) being a woman, and (b) being a DBE. She reported that there is a lot of gender bias in Nevada that negatively affects her. She also reported that she receives "sexist comments" such as being referred to as "little lady" when trying to market her products in Nevada. [P #1]

H. Insights Regarding Business Assistance Programs, Changes in Contracting Processes or Any Other Neutral Measures

The study team asked business owners and managers about their views of potential race- and gender-neutral measures that might help all small businesses, or all businesses, obtain work in the transportation contracting industry. Interviewees discussed various types of potential measures and, in many cases, made recommendations for specific programs and program topics. The following pages of this Appendix review comments pertaining to:

- Technical assistance and support services (page 87);
- On-the-job training programs (page 89);
- Mentor-protégé relationships (page 89);
- Joint venture relationships (page 92);
- Financing assistance (page 92);
- Bonding assistance (page 93);
- Assistance in obtaining business insurance (page 94);
- Assistance in using emerging technology (page 94);
- Other small business start-up assistance (page 95);
- Information on public agency contracting procedures and bidding opportunities (page 96);
- On-line registration with a public agency as a potential bidder (page 96);
- Hard copy or electronic directory of potential subcontractors (page 97);
- Pre-bid conferences where subcontractors can meet prime contractors (page 98);
- Distribution of lists of planholders or other lists of possible prime bidders to potential subcontractors (page 99);
- Other agency outreach such as vendor fairs and events (page 100);
- Streamlining or simplification of bidding procedures (page 101);
- Breaking up large contracts into smaller pieces (page 102);
- Price or evaluation preferences for small businesses (page 103);
- Small business set-asides (page 104);
- Mandatory subcontracting minimums (page 105);
- Small business subcontracting goals (page 106);
- Formal complaint and grievance procedures (page 107); and
- Other measures (page 107).

Technical assistance and support services. The study team discussed different types of technical assistance and other business support programs.

Some business owners and managers thought technical assistance and support services would be helpful. Business owners and managers in support of such programs included #1, #4, #9 and #24.

Some business owners and managers reported being aware of technical assistance and support services programs and having used them. Examples of such comments include the following:

- The African-American female manager of a non-certified electrical contractor reported that NDOT has a six-week class that was really helpful. She said that it didn't hit on the key issues that they had, like how to write the bids and complete proposals for a public entity, but they covered basic business areas like financing, bonding, marketing, etc. She said, "I think that was very helpful just because of the information that they shared." [#20]

- The female owner of a DBE-certified trucking company reported that SCORE provided her significant technical assistance. She said that she went to classes regarding financial statements that were very helpful. She also recalled that she attended a seminar last year where NDOT, AGC and the primes were in attendance. [#25]

- The female partner of a DBE-certified surveying firm reported that her firm has gone to several AGC seminars and they have been helpful. Some examples of seminars she's attended are employee relations and contracts (with attorneys). She would attend NDOT workshops if they were available. [#29]

Some interviewees recommended specific technical assistance topics. For example:

- The Subcontinent Asian American principal of a DBE-certified engineering firm reported that technical assistance in the way of accounting would be helpful. [#26]

- The white male partner in a majority-owned transportation engineering firm suggested that, for any small business program, training and assistance on how to get qualified for the program might be helpful, as it can often be difficult to understand how to qualify for them. [#38]

- When asked if technical assistance would be helpful, the white male vice president of a majority owned trucking and aggregate company said, "Yes, it would be helpful … Prevailing wage training would be helpful." [#44]

- The white male president of a general engineering firm recommended that perhaps technical assistance should a requirement to participate in the DBE program. [#8]

Some firm owners and managers recommended against such programs because they thought that small businesses should access any assistance on their own. For example:

- The female owner of a DBE-certified engineering firm reported that technical assistance and support services should not be provided by NDOT because it's not their job to do that. [#10]

- The white female owner of a DBE-certified civil engineering firm reported that she's doesn't think NDOT has technical assistance and she's not sure that it would be helpful. She feels that people starting a business need to understand how to do those types of things or they're not going to succeed. University of Nevada Reno's Small Business Development Center (SBDC) has those types of classes. [#31]

- The white male co-owner of an engineering firm reported that some technical assistance programs are helpful and others are not helpful enough to warrant their existence. [#7]

On-the-job training programs. Nearly all business owners and managers interviewed were supportive of on-the-job training programs. For example,

- The white male co-owner of an engineering firm reported that on-the- job training is very useful. [#7]

- The white male president of a general engineering firm reported that all firms should have their own in-house training program but it costs money and a lot of people don't have the money to do that. [#8]

- The chief estimator of a publicly-traded construction company reported that his firm would not be interested in conducting on-the-job training themselves. However, it may be beneficial to DBEs. He was not sure that NDOT would have resources to conduct this type of training. [#9]

- The Native American male owner of a DBE-certified electrical contracting company reported that on-the- job training would work if people were paid while getting trained on the job. [#34]

- The white male representative of a majority-owned material supplier and general contracting company felt that there is a major lack of apprenticeship training. [#40]

Mentor-protégé relationships. Many interviewees commented on mentor-protégé programs. A number of business owners said that they had informal mentor relationships.

There were many comments from interviewees in support of mentor-protégé programs. [for example, #1, #5, #12, #20, #24, #30, #32, #35] Many interviewees had favorable comments, but some also talked about the challenges of creating a successful program.

- The Hispanic male co-owner of a materials supply and DBE-certified general contracting company said, "It has to be done the right way and for the right reasons and it could be, definitely could be good, a mentor program." [#2]

- The white male co-owner of an engineering firm said, "If you have a good idea of what you want to do and what kind of skills are gonna take you there, and you can find someone who has the experience and is willing to mentor you, I think that's really good." He also said that NDOT may be able to help with a mentor-protégé

program but challenges may be encountered with setting something like that up. He indicated that if NDOT tries to approach a large firm and ask them to mentor a smaller firm, resistance may be met because they don't want to create competition for themselves. [#7]

- The white male president of a general engineering firm reported that the government job he's working on in California requires a mentor-protégé relationship and they've been very satisfied with the program so far. [#8]

- The female owner of a DBE-certified engineering firm reported that mentor-protégé programs would be helpful. She said that the 8(a) program has a mentor-protégé program that links 8(a) firms with a larger firm and requires that they use the small business on some of that work. She also said that it's hard to get in to those programs and it would be a great idea for NDOT to establish a mentor-protégé program. [#10]

- The minority co-owner of a general contracting and procurement firm said, "I think that a mentoring program would be great but I'm hoping it's not going to be like 8(a) mentoring program. I would probably never get involved in that because you have to be in business for two years before you can even be accepted into the mentoring program. Your background and your experience mean nothing. So I could have worked with the government for 20 years, go to 8(a) and say, 'OK I'm starting up this business' and someone calls and says, 'have you been in business for 24 months?' Then, once you get in to the mentoring program, you're only in it for two years then you have another five years over that before you're out. So I get seven, maybe ten years out of the program and then I'm done. I think that it's a process that isn't for everyone." She then recommended, "Some of these larger companies should offer incentives to work with some of these smaller companies. If you want see the economy grow, then back some of the small businesses and have some of these owners understand that they are the future." [#15]

- The Asian Pacific female owner of a SBA- and DBE-certified environmental company said, "I would like to have the mentor-protégé relationships." She also said that it would be preferable to be mentored by a larger prime contractor. [#16]

- The representative of a construction association said that a number of years ago, his association had a grant that supported mentoring activities for DBEs. There were about five or six companies involved in the program. He said that it was amazing how little many of the company owners knew about operating a business. Volunteers from larger businesses helped with the mentoring. He said that these types of programs can be successful, but it is difficult to get larger contractors to find time to volunteer. He also said that some screening of people who are really emerging contractors is helpful. For example, someone who has a history of working in the field that then starts a business might be a good candidate. [#17]

- The female owner of a DBE-certified trucking company reported that she may consider a mentor-protégé program if it was available to her but that everyone is so competitive around her area that she doesn't see that kind of program happening. [#25]

- The Native American male owner of a DBE-certified electrical contracting company reported that mentoring would helpful. He said that his firm could do more NDOT work if he had the resources. If NDOT mentored, they could see what kinds of issues firms like his are facing. He said, "They could almost monitor everybody they get in there." He also said that mentor-protégé programs are a win-win because they can't let you fail. He said that there is a mentor protégé program at the Base through the SBA [#34]

- The Hispanic male director of a Hispanic advocacy group said that if there aren't enough DBEs in the area "let's formulate mentor-protégé, teaming arrangements. It's nothing new. It's been practiced throughout the industry." NDOT needs to take the initiative "because the big boys don't listen to anybody else." There are not currently any mentor-protégé relationships or program. [#37]

Other business owners and managers were more skeptical that a mentor-protégé program could be successfully implemented. Some interviews said that mentor-protégé programs, in theory, could be useful, but doubted that the challenges to creating a successful program could be overcome.

- The Hispanic male co-owner of a construction company reported that he would be interested in a mentor-protégé program but he was skeptical about them. He said that you have to read the contracts and make sure they're equal so that one firm does not benefit more than the other. [#1]

- When asked about mentor-protégé and joint venture programs, the chief estimator of a publicly-traded construction company said, "We've done those. I don't think [the experience went] very well on the joint venture." He said that his firm tried to organically tie to a disadvantaged sub with a mentor-protégé program but it just didn't work. The company went out of business. [#9]

- When asked about his thoughts on mentor-protégé relationships, the African American director of a minority development agency said, "That's pie in the sky. They want it all. The folks who are building our roads have situations where it's competitive and there's no way I can see a company training another company to compete with them. I'd love to see it but it doesn't exist." [#23]

- The female partner of a DBE-certified surveying firm reported that a mentor-protégé program may be of interest to her. However, her concern is that if her firm were to mentor, they may feel like they were mentoring somebody that would be competition in the future. [#29]

- The white female owner of a DBE-certified civil engineering firm reported that she has never seen mentor-protégé relationships at NDOT and she doesn't think it does much good. She said, "What's the incentive for a big firm to do mentor-protégé? On the surface it sounds like a great program. Where is the big firm going to get the money from their budget to take the time to teach a firm like us?" [#31]

Joint venture relationships. Interviewees also discussed joint venture relationships.

Some of the business owners and managers interviewed had favorable comments about joint venture programs. [for example, #1, #2, #12, #15, #23] Examples of those comments include the following:

- The Hispanic male co-owner of a construction company reported that he was aware of joint ventures and thought that perhaps a joint venture may help them build their company by finding a way to partner up without an outside party gaining ownership in their company. He said, "We understand a bigger company can help us grow a little bit more, and put more capital in our company so we can stand on our own and go $500,000 or up to $1 million." [#1]

- The male owner of a non-certified electrical contracting company reported that joint ventures are awesome and they are "the only way to get companies to grow." [#35]

Some interviewees expressed negative comments and anecdotes about joint venture programs. For example:

- The white male president of a general engineering firm reported that he doesn't see a need for joint venture relationships. [#8]

- The male partner in a DBE-certified, woman-owned engineering firm reported that joint venture relationships are a challenge on the business side. [#13]

- The white male manager of a majority-owned materials supplier commented that, although joint venturing would be nice, the people in his industry don't trust each other enough for it to be a viable option. [#24]

- The white male representative of a majority-owned demolition company indicated that joint ventures are a good thing, but that DBE certification requirements can make it almost impossible to joint venture with a DBE and maintain the DBE status. [#41]

Financing assistance. Many business owners and managers had comments about assistance obtaining business financing.

Many business owners and managers indicated that financing assistance would be helpful. [for example, #1, #2, #16, #34, #36] Comments in favor of financing assistance programs included the following:

- The female owner of a DBE-certified engineering firm reported that finance assistance would be helpful for some DBEs. She recommended that maybe NDOT could approach bonding firms to motivate them to help DBEs. [#10]

- The African American director of a minority development agency reported that if minority firms need to increase capacity, hire more people, purchase or equipment, they need access to capital so financial assistance is extremely important. [#23]

- The white male manager of a majority-owned materials supplier noted that assistance with financing might be beneficial. He was wary, however, of having any significant debts. [#24]

- The male owner of a non-certified electrical contracting company reported that financing assistance would be beneficial for small businesses. He said, "Everyone's looking for money." [#35]

- The male president of the Urban Chamber of Commerce reported that many small construction firms already have technical capacity but they need significant resources in the way of financial capacity. [PM#11]

Some business owners reported that their companies did not need financing assistance. For example:

- The male partner in a DBE-certified, woman-owned engineering firm reported that his firm has not had a problem with financing. [#13

- Regarding financing, bonding and insurance assistance, the white male vice president of a majority owned trucking and aggregate company said, "I don't think that's the government's role either." [#44]

Bonding assistance. The study team asked business owners and managers about bonding assistance.

Many business owners and managers indicated that bonding assistance would be helpful. [for example, #1, #3, #4, #10, #36] Examples of such comments include the following:

- The female owner of a DBE-certified engineering firm said, "I can pretty much guarantee in the construction world, bonding assistance would be pretty big, I would think. How do you even get bonds? For me, [bonding assistance means] education. [#5]

- The minority co-owner of a general contracting and procurement firm said, "Bonding assistance would be great." [#15]

- The male owner of a non-certified electrical contracting company said, "You can always use help in the bonds. When times get tougher, the bonds are always harder to get." He said that the information is out there for everyone to know and it's up to them to find it. They can find it by talking to bonding companies or other contractors. [#35]

- The white male representative of a majority-owned demolition company stated that the greatest assistance needed for most small businesses is with bonding. Simply put, bonding allows firms to take a risk on lesser known subcontractors. Without sufficient surety, firms will be much more likely to only work with firmly established subcontractors, regardless of other factors. [#41]

- A female representative of the Urban Chamber of Commerce reported that she is very satisfied with the current NDOT Civil Rights Officer and how she has brought in neutral programs such as bonding workshops to help out DBEs. [PM#10]

Some business owners said that they did not have difficulties dealing with bonding. For example:

- The Native American male owner of a DBE-certified electrical contracting company reported that subcontractors don't usually bond a job unless the prime contractor requires it so bonding assistance may not be useful. [#34]]

One advocate for DBEs said that bonding programs are not effective.

- The Hispanic male director of a Hispanic advocacy group said, "Bonding assistance and financial assistance aren't even worth the paper it's written on." He said that the best way of getting bonding and financial assistance is the relationship the DBE has with that prime because that prime can call his bank or his bonding company and say, "I've got this boy here who's gonna be my sub here. See what you can do to help him out." If a DBE goes to the bank on his own, it's going to be difficult." [#37]

Assistance in obtaining business insurance. Some business owners and managers interviewed said that assistance obtaining business insurance was a need; others did not.

Some interviewees recommended assistance in obtaining business insurance. [for example, #18, #26, #36] For example, the minority co-owner of a general contracting and procurement firm said, "Help in obtaining business insurance would be fantastic." [#15]

Many interviewees indicated that assistance in obtaining business insurance was not needed. [for example, #5, #38, #44] One interviewee said that knowledge about purchasing business insurance should be a given:

- The female owner of a DBE-certified engineering firm said, "There's some stuff a business inherently needs to know how to do on their own. You can't just say 'I want to be in construction.' They have to initiate too." [#5]

Assistance in using emerging technology. Interviewees discussed assistance in the emerging technology.

Some business owners said that assistance using emerging technology would be helpful. [for example, #8, #31] Examples of those comments include the following:

- The white male president of a subsidiary of a publicly-traded supplier said, "Assistance in using emerging technology could and should be a two way street between us an NDOT." [#19]

- When asked about assistance in using emerging technology, the African American director of a minority development agency said, "That would be a help. You always want to know what the best practices are. That makes sense." [#23]

- When asked about assistance in using emerging technology, the white male vice president of a majority owned trucking and aggregate company said, "That would be helpful I guess." [#44]

Other small business start-up assistance. When asked about other small business start-up assistance, some businesses were in favor of such assistance. For example:

- The representative of a construction association said that companies need training on how to start and grow, and then to manage success. He emphasized the importance of investing profit back into your business. He also said that this type of assistance can't be done in the classroom. [#17]

- The white male manager of a majority-owned materials supplier felt that start-up assistance would be beneficial. [#24]

- The white female owner of a DBE-certified specialty contracting firm said, "For somebody who's never been in business, [business start-up assistance] would be great. I think it would be a great idea to have somebody help you through that process." [#30]

Other business owners and managers said that assistance with regulations and paperwork was needed for start-ups. For example:

- The white female owner of a non-certified trucking and excavation company said that a website or some type of checklist would be helpful to explain what new businesses need to get started. [#36]
- The white male partner in a majority-owned transportation engineering firm reported that a clearer process and better instructions for the various registrations, filings, and licenses a new business needs would be helpful. [#38]

In response to the question concerning start-up assistance, some business owners pointed to services that are now offered. For example:

- The white female owner of a DBE-certified civil engineering firm reported that it might be helpful if the American Council of Engineering Companies (ACEC) Small Business Liaison Committee could have an open dialogue about what NDOT wants and what's good for small businesses. [#31]
- In reference to start-up assistance, the white male vice president of a majority owned trucking and aggregate company said, "They're advertised well." [#44]

However, some business owners expressed some cautions about business assistance. For example:

- In regards to his agency's small business start-up assistance, the African American director of a minority development agency said, "We help people to make a decision and we help them with the licensing process. When it comes to start-ups, it's not construction at this stage." [#23]

Information on public agency contracting procedures and bidding opportunities. Most interviewees indicated that more information on public agency contracting procedures and bidding opportunities would be helpful. [#16, #20]

Many business owners and managers reported that they were already receiving information on bidding opportunities or knew how to search for them. For example:

- The white male partner in a majority-owned transportation engineering firm reported that information on public actions, bidding and procedures is already well disseminated. [#38]

A number of interviewees suggested that public agencies better coordinate how they provide information about contract opportunities. For example:

- The Hispanic male co-owner of a materials supply and DBE-certified general contracting company reported that their firm receives lots of requests for bids but they're too large. Because they are DBE-certified, they get all kinds of RFPs but they may not pertain to them. Then NDOT says, "Look, we reached out to all these DBEs so we did our due diligence." He said that there needs to be another NDOT system that's targeted to specific suppliers and services. [#2]

- The Subcontinent Asian American principal of a DBE-certified engineering firm reported that more classes from the public agencies would be helpful specifically, how to reach out to government agencies and how to get work. He would like it if an agency could facilitate a connection with prime contractors. [#26]

- The white male manager of a majority-owned materials supplier remarked that a single, easy place to look for all potential contracts would be a great help. [#24]

On-line registration with a public agency as a potential bidder. Most owners and managers of construction companies said that online registration with public agencies would be helpful.

A number of interviewees said their companies were already participating in on-line bidder registration systems. For example, the male owner of a non-certified electrical contracting company reported that online registration with public agencies for potential bidding currently exists and is very helpful. [#35]

Related to online registration, some business owners and managers discussed their experience concerning electronic rosters for small public agency projects. For example:

- The African-American female manager of a non-certified electrical contractor said, "They [should] somehow require NAICS codes so that when jobs come up that are within your scope, you already know and you're not just flooded with 100 bids a day." [#20]

- In reference to on-line registration with public agencies as a potential bidder, the white male vice president of a majority owned trucking and aggregate company said, "That's pretty easy too." [#44]

Several interviewees said they preferred centralized on-line registration systems for public projects. For example:

- The minority co-owner of a general contracting and procurement firm said, "Online registration would be great." He reported that the Clark County procurement website is not as helpful as it could be and it's difficult to find projects for NDOT that are not put together with Clark County. He said, "There are two roadway jobs that have been bid on that I knew nothing about. They're on Clark County's website but they're NDOT jobs. How do you see the difference?" [#15]

Hard copy or electronic directory of potential subcontractors. Most interviewees said that hard copy or electronic lists of potential subcontractors would be helpful.

Some business owners pointed out existing resources, including NDOT's on-line directory. Examples of such comments included the following:

- When asked about distribution of the lists, the chief estimator of a publicly-traded construction company said, "All agencies should make it available. Most do." [#9]
- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm reported that it's helpful to have a list of plan holders or potential bidders. She said that these are available online and sometimes have a cost associated with them. [#11]

Some business owners were critical of NDOT's existing on-line directory or had recommendations for improvement. For example:

- The white male president of a general engineering firm asked, "How often are they updating the DBE list? Are they sending the jobs every time they come out?" He reported that his firm has never been asked who they are using and what their opinions of them are. He recommended that maybe all the big contractors could get together to share who they use instead of being forced to use NDOT's list. [#8]
- The white female owner of a DBE-certified civil engineering firm said that NDOT has a long DBE list that is painful to go through to figure out each firm does. It would be more useful if it could be sorted by category; first by contractor or consultant, and then by contractor or consultant type. [#31]
- The white male partner in a majority-owned transportation engineering firm stated that a more comprehensive, better designed, and better organized electronic directory of potential contractors would be useful. He remarked that, as things are now, his firm (an engineering and design firm) is being placed in the same category as janitorial supply. [#38]
- The female owner of a DBE-certified design firm asked, "For someone like me who's a very small business, how would a prime know about my niche? I mean if you look at the DBE data base, it's very large and you're really never going to know the details of every single firm scrolling through. Do you have events or match-making so larger firms can know about the small niche business?" [PM#19]
- The female partner of a DBE-certified surveying firm reported that it would be ideal if the DBE list could be distributed on a project by project basis, especially if there was a DBE requirement. [#29]

Pre-bid conferences where subs can meet primes. Many business owners and managers supported holding pre-bid conferences. [for example, #11, #16, #18] Comments included:

- The white male co-owner of an engineering firm said, "I have mixed feelings about [pre-bid conferences]. I don't think it hurts and I think if anything, that's at least one more opportunity for the underdog to meet the people in charge and work on that relationship." He also said, "If you get on somebody's list and all you see is a list and you see they only have five employees, you might write them off. But once you get to know them, you might feel differently." [#7]

- The chief estimator of a publicly-traded construction company reported that pre-bid conferences are "one of their best ways to outreach. [The DBEs are] never there. Most subs, DBE or non-DBE, don't go." [#9]

- The female owner of a DBE-certified engineering firm reported that pre-bid conferences would be good but the follow up could be difficult. She recommended that NDOT follow up by asking the primes what their thoughts were on the subcontractors that they met and then they should encourage the primes to use them. [#10]

- The white male president of a subsidiary of a publicly-traded supplier said, "Pre-bid conferences would be kind of cool." [#19]

- When asked if pre-bid conferences would be helpful, the African-American female manager of a non-certified electrical contractor said, "Yes because normally, when the prime contractors put their RFP together, they've already gone through that first step so that would be great to have pre-bid conferences where the subs and primes can meet." [#20]

- When asked if it would be helpful if NDOT facilitated relationships between primes and subs, the female partner of a DBE-certified surveying firm said, "I think that would be great. It would be a real positive thing." [#29]

- The white female owner of a DBE-certified specialty contracting firm said, "[Pre-bid conferences are] a great idea. We go to all of them." [#30]

- When asked about pre-bid conferences, the male owner of a non-certified electrical contracting company said, "That's a given. You have to have that." [#35]

- The white male partner in a majority-owned transportation engineering firm reported that a pre-proposal conference may provide some utility in identifying which other companies are interested in a given proposal, but that such information was usually clear anyway. [#38]

A few interviewees did not think that pre-bid meetings were useful. For example:

- The white male manager of a majority-owned materials supplier asserted that he simply did not have the time get involved with pre-bid conferences, or to read the multitude of contracts available to look for a small part his company could work on. [#24]

- When asked about pre-bid conferences, the white male vice president of a majority owned trucking and aggregate company said, "No. I don't think they need to do that." [#44]

- In regards to pre-bid conferences, the African American director of a minority development agency said, "We've done that. I stopped attending them a couple of years ago [because] they want it all." He said that this means that the prime contractors are all self-performing. [#23]

Distribution of lists of planholders or other lists of possible prime bidders to potential subcontractors. Most of the business owners and managers interviewed supported the distribution of planholders lists.

Examples of comments in support of distribution of planholders lists include the following:

- The African-American female manager of a non-certified electrical contractor said, "[That would be] really good because as a sub, if you have a list of everybody who is going for that job, you just need one bid that you create and then you can submit it to all of them. One of them is going to get the job and you, at least, kind of increase your chances." [#20]

- The Native American male owner of a DBE-certified electrical contracting company reported that NDOT already distributes the plan holders. However, they used to send it out three days before the bid so there wasn't enough time to bid. [#34]

- When asked about the distribution of lists, the white male vice president of a majority owned trucking and aggregate company said, "There's firms here that do that. The Reno Builders Exchange does that." Yes, it's helpful. [#44]

Other agency outreach, such as vendor fairs and events. Some business owners and managers reported that outreach such as vendor fairs and events were useful. Others no longer regularly attend those events.

Examples of positive comments about agency outreach events include the following:

- The female owner of a DBE-certified engineering firm said, "I know that if NDOT did a meet-and-greet where they had tables set up and here's engineering, here's construction, here's our procurement, I know, hands down, that if they only did that, we could get in with them." [#5]

- When asked about meet and greets, the white male president of a general engineering firm said, "That would be valuable for us if we knew that a small business or somebody like that, or a supplier or subcontractor was interested." [#8]

- The chief estimator of a publicly-traded construction company said, "I think that outreach is key. I went to a diversified event where it was NDOT and a bunch of DBEs and I went thinking that it was a DBE general contract outreach meeting for both, to bring them together. I was the only general contractor there. I sat in the back of the room and I just listened. I didn't say anything. They talked about primarily how to become a DBE." He said that would have been a great opportunity to introduce DBEs to contractors. He also said, "I don't see any of that." He reported instead, there's a ton of outreach on how to become a DBE. [#9]

- The Hispanic president of a minority trade association reported that her organization holds membership meetings and mixers so that member firms can "connect." [#18]

- The Subcontinent Asian American principal of a DBE-certified engineering firm reported that the Small Business Development Center has helped him some. He has gone to a meeting there. He said that there was going to be a meeting where he could meet prime contractors through the SBDC, but it was cancelled. [#26]

- The female partner of a DBE-certified surveying firm reported that her firm is a member of the American Council of Engineering Companies (ACEC), the Nevada Association of Land Surveyors and the Association of General Contractors (AGC). She said that ACEC is a group of engineering firms and attending events with this group allows her to talk with engineers. She also said that these memberships are important to firms entering in to this industry because it helps them establish personal relationships. [#29]

- When asked if agency outreach like vendor fairs and meet and greets would be helpful to her firm, the white female owner of a DBE-certified specialty contracting firm said, "I'm open for all of those." It's not as important to someone like her who has been in business for a while. [#30]

- The white male partner in a non-certified engineering firm reported that agency outreach could potentially be useful but he's not sure how exactly to structure something like that. He also said that that he would be interested in a meet and greet event with NDOT. He knows the local NDOT guys but doesn't know the headquarters people. [#32]

A number of business owners and managers indicated that outreach events were not useful. For example:

- The Hispanic male co-owner of a materials supply and DBE-certified general contracting company reported that sometimes they do vendor outreach, fairs and events but they're so general, it's hard to get paired with the right company or the right people. [#2]

- The African-American female manager of a non-certified electrical contractor stated that vendor fairs "are just kind of surface" and she's not sure if there is really any value in them. [#20]

- The African American director of a minority development agency said, "We've participated in events and a lot of contractors are really just kind of tired of the same old thing and they don't come because they have been there, tried that. It didn't work, wasted time. They're gun shy." [#23]

Streamlining/simplification of bidding procedures. Most business owners said that streamlining or simplifying bidding procedures would be helpful.

Some business owner made specific comments about streamlined reporting requirements or reduced paperwork. For example:

- The female partner of a DBE-certified surveying firm reported that streamlining and simplification of bidding procedures would be helpful and even more so if the process was the same across public agencies, and even for every NDOT project. [#29]

- When asked about streamlining or simplification of the bidding processes, the male owner of a non-certified electrical contracting company said, "That would be nice. Stop all the breakdowns in the jobs. Too many breakouts is what we see right now." [#35]

Some interviewees indicated that they thought that bidding procedures were already streamlined, or that further streamlining was not needed. For example:

- The white female owner of a DBE-certified specialty contracting firm reported that streamlining or simplification of the bidding process is not necessary because she's comfortable with the current bidding process. She said she uses a program called HeavyBid to create her bids. [#30]

- The white male vice president of a majority owned trucking and aggregate company said, "They already do that. It's pretty cut and dry." [#44]

Breaking up large contracts into smaller pieces. The size of contracts and unbundling of contracts were topics of interest to many interviewees.

Most business owners and managers interviewed indicated that breaking up large contracts into smaller components would be helpful. Examples of those comments include the following:

- The female owner of a DBE-certified engineering firm reported that breaking up large contracts in to smaller pieces would be very helpful, and if they made an effort to get smaller companies to bid, that would be great. [#10]

- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm reported that it might help if professional services were broken out in NDOT contracts because she would then have the opportunity to be a prime on the project. [#11]

- The minority co-owner of a general contracting and procurement firm said, "I love the unbundling, the breaking of contracts into smaller pieces." [#15]

- The Hispanic president of a minority trade association reported that contract sizes can be a challenge. Breaking contracts down in to smaller pieces gives members to earn "a little piece of the pie." [#18]

- The African-American female manager of a non-certified electrical contractor reported that unbundling contracts would make her feel like it was something she could actually go for. She said, "There's room for everybody but you just have to get in there." [#20]

- The African American director of a minority development agency reported that unbundling contracts would make roadway projects more accessible to smaller business owners. [#23]

- When asked if breaking up contracts would be helpful, the female owner of a DBE-certified trucking company replied, "That would definitely be helpful." She also said it would be good if the DBEs could all work together but be paid individually. [#25]

- The white female owner of a DBE-certified specialty contracting firm reported that it would be helpful if NDOT broke up contracts so she had more opportunity to bid as a prime contractor. She said that NDOT could help her business grow by offering more prime contracts. [#30]

- The white male representative of a majority-owned material supplier and general contracting company stated that, while his firm is capable of completing $100 million dollar contracts, he believes it is better for the market if contracts are broken up into smaller pieces, which keeps a healthy number of contractors employed. He

acknowledged that it may be more management intensive for NDOT as there are more individual projects, but ultimately feels that it is much better for the community. [#40]

- The white male partner in a non-certified engineering firm reported that breaking large contracts into smaller pieces would be beneficial to his firm. He said that a lot of NDOT projects are $8 to $10 million highway project that may include $500,000 consulting. That amount is three-quarters of a year's revenue for them and it's not something that his firm is large enough to do. He doesn't know if it's cost effective for NDOT to cut a large project in to smaller pieces but they would "take a shot at it" if it was offered to him. [#32]

A few business owners saw both positive and negative aspects of unbundling contracts. For example:

- The white male president of a subsidiary of a publicly-traded supplier expressed that breaking large contracts into small pieces may not be in the best interest of the State but primes should be more specific about their subcontractors and suppliers. [#19]

- In regards to breaking large contracts in to smaller pieces, the female manager of a publicly-traded construction supply firm said, "Not a good idea." She said that this would cause a lot of conflict because it does not work to have multiple contractors of the same trade on one job. She said that it's too confusing but it may work if there were only one subcontractor per industry. [#22]

- The white male manager of a majority-owned materials supplier claimed that breaking up bundling "would be a mess." [#24]

- The Native American male owner of a DBE-certified electrical contracting company reported that he does not think it would help to break up contracts because it would cost everybody more money to unbundle them. [#34]

- In regards to breaking contracts in to smaller pieces, the white male vice president of a majority owned trucking and aggregate company said, "I think that cost the tax payers more money." [#44]

- A representative of the Nevada Association of General Contractors said, "What we don't want to see are large transportation projects be unbundled …. What I mean by that is, say, you're paving 10 miles of road. We wouldn't want to see something unbundled like the curbs for a section. It could slow down the entire project. We don't think unbundling is a solution when it comes to larger transportation projects." [PM#8]

Price or evaluation preferences for small businesses. Interviewees also discussed bid preferences for small businesses.

Many interviewees said that price or evaluation preferences for small business would be helpful. [for example, #34]

Some interviewees identified advantages and disadvantages with preferences for small businesses. For example:

- The male partner in a DBE-certified, woman-owned engineering firm said, "Everyone should have to compete on fair grounds but I wouldn't mind seeing a preference for small and local [firms]. Support Nevada businesses." [#13]

- The white male manager of a majority-owned materials supplier noted that preferentially awarding smaller projects to smaller firms would be appreciated, and expressed doubt that there was much to be done regarding bigger projects. [#24]

- The white female owner of a DBE-certified civil engineering firm reported that she has not participated in a small business program. She said, "I saw NDOT's policy for small businesses. It's a joke. The prime just has to show a good faith effort and there's no penalty if you don't do it so it's a joke. "NDOT needs a champion for small businesses. Then they need to come up with a policy on how they're going to engage small businesses whether they be DBE or small business." She also said that the policy they have now is not helpful. Something similar to Florida's program, where there's preference points given to a firm who uses a small business, may be helpful because it provides an incentive. She also recommended that maybe small business set asides for projects under $500,000 would be helpful. [#31]

- The white male representative of a majority-owned material supplier and general contracting company and his colleague both reported feeling that awarding contracts should be based on more than just lowest bid. [#40, #45]

A few business owners did not support price or evaluation preferences for small business. For example:

- In regards to price or evaluation preferences for smaller business, the African American female manager of a non-certified electrical contractor reported that she doesn't know if that would really be helpful and she doesn't see much value in it. [#20]

- The white male vice president of a majority owned trucking and aggregate company said, "I know we would qualify for that but I don't think that anybody should get that. Why should the general contractor be required to use some other small business? I know that would be helpful to some of us small businesses but why should the government be in control of that?" [#44]

Small business set-asides. The study team discussed the concept of small business set-asides with business owners and managers. That type of program would limit bidding for certain contracts to firms qualifying as small businesses.

Most business owners and managers supported small business set-asides. Examples of those comments include the following:

- The white male president of a general engineering firm reported that his firm is satisfied with small business set asides as long as there are subcontractors that can provide the work they need. [#8]

- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm said that a small business set aside would be helpful because it would create less competition. [#11]

- When asked if small business set-asides or goals would be helpful, the male owner of a non-certified electrical contracting company said, "It doesn't do anything for us. For the smaller contractors it's a good thing." [#35]

- The female owner of a DBE-certified engineering firm said, "Small business set-asides are great but again there's gotta be a whole backstory where the agency is truly committed to it and the agency is truly mentoring and trying to partner. If you left with one thing, I think that's the biggest thing that NDOT needs to do." [#5]

Some business owners and managers generally supported small business set-asides but expressed some reservations about the concept. For example:

- The African American director of a minority development agency reported that small business set-asides are important but currently, the goals are unreasonable because there's no room. He said, "If you put everybody in to the same pool, how can they compete?" [#23]

Mandatory subcontracting minimums. Some business owners and managers supported requiring a minimum level of subcontracting on projects. Some interviewees did not.

Examples of comments in support of a mandatory subcontracting minimum program include the following:

- In regards to mandatory subcontracting minimums, the female owner of a DBE-certified trucking company said, "I think it's a good thing. It's nice for everybody to share in getting parts of contracts." [#25]

- The female partner of a DBE-certified surveying firm reported that mandatory subcontracting minimums would create more opportunity for her firm to do work and that's important to her right now. [#29]

- The white male partner in a non-certified engineering firm reported that he has not heard of mandatory subcontracting minimums. He said, "It would certainly open the door I think a little bit for some of the smaller guys." [#32]

- The African-American female manager of a non-certified electrical contractor reported that it should be required that prime contractors change out some of their subcontractors under a certain dollar amount. That way, you know that they're looking for new businesses and new bidders. [#20]

Some interviewees did not like the idea of mandatory subcontracting minimums or did not think it would be effective. For example:

- The male partner in a DBE-certified, woman-owned engineering firm expressed that goals and accountability are good but making something mandatory is going to lead to fraud. He said, "I think you're better off to have goals with some kind of award tied to them somehow." [#13]

- The white female owner of a DBE-certified specialty contracting firm reported that small business set asides or mandatory subcontracting minimums would not be helpful because she thinks the contractors are very specific to what they do. She said that it would benefit the subcontractors but she doesn't think there should be that type of requirement. [#30]

- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm expressed that she would prefer that the mandatory subcontracting minimum be removed and replaced with a non-specific DBE requirement. [#11]

- The white male vice president of a majority owned trucking and aggregate company reported that he does not feel that the government should be in control what businesses are used. [#44]

Small business subcontracting goals. Interviewees discussed the concept of setting contract goals for small business participation.

Many business owners and managers indicated that small business subcontracting goals would be helpful. [for example, #11, #20] Examples of such comments include the following:

- The white female owner of a DBE-certified civil engineering firm expressed that it would be great if the NDOT External Civil Rights Division became more of a champion for small businesses. She said that Civil Rights wrote a policy that meant nothing and she doesn't understand why she wrote the policy that way. NDOT is only as good as the people making the decisions. She doesn't feel that NDOT supports small businesses. [#31]

- The white male representative of a majority-owned material supplier and general contracting company stated that small business contracting goals would be good for small businesses and help break up monopolies. [#40]

Some business owners had concerns about the effectiveness of a small business goals program. For example:

- The white male co-owner of an engineering firm said, "I don't think [small business preference on public contracting] does a lot of good. I think the big guys think it's taking a lot of work from them unnecessarily but it's not. When there's a large project, a small firm is not going to be capable of bidding on a project like that. So they have to struggle to get a little piece of something." He also said, "I don't think it helps them get major parts of the work that's out there. I think it might help them get the occasional project now and then. But I don't think it's going to turn them from a five person firm in to a 200 person firm." He added that large firms are not in favor of the small business programs because they tend to see it as reverse discrimination and it gets in their way. However, he indicated that the reality is that there's nothing to fear from the smaller companies because they can't compete on the large contracts. [#7]

- The white male partner in a non-certified engineering firm said that striping may be a candidate for small business subcontracting goals, but the prime contractors are going to want to self-perform the rest of the work on a highway contract. By forcing them to subcontract portions of the project, it's going to end up costing more money. [#32]]

Formal complaint/grievance procedures. The study team discussed procedures for making complaints or outlining grievances.

Many business owners and managers said the formal complaint and grievance procedures would be a benefit. Examples of those comments include the following:

- The African American director of a minority development agency said, "[Staff of the External Civil Rights Division] seems to be intent on hearing whatever might be an issue and making sure she follows through when that wasn't the case in the past. You had to say things collectively, meaning there needed to be a coalition of constituent-based organizations in order for us to get any movement. To let the folks know that less than one percent is not OK." [#23]

- The white male representative of a majority-owned material supplier and general contracting company felt that an independent office for formal complaints and grievances would help bring accountability back to the Department. "It has to have teeth if it's going to work," he added. [#40]

Some business owners and managers did not believe complaint or grievance processes needed to be improved. For example:

- The white male president of a general engineering firm reported that his firm has no issues with formal complaint or grievance procedures. [#8]

- In regards to a formal grievance or complaint process, the female manager of a publicly-traded construction supply firm said, "No, I don't even know what that is…I don't know what we could even complain about." [#22]

- The male partner in a DBE-certified, woman-owned engineering firm reported that they already exist but he is very reluctant to file any kind of grievance because he gives the agency the benefit of the doubt. [#13]

Other measures. Some business owners identified other neutral measures for consideration. For example:

- When asked what he thought NDOT could do to help the DBEs, the chief estimator of a publicly-traded construction company said, "First of all, anybody's got to know what jobs are out there." He said that second, NDOT should publish the plan-holders list and not make them go to the website. He further said that NDOT should facilitate the introduction between DBE and general contractor and educate them on jobs that are coming out ahead of time. He recommended that the more advanced notice you can give them, the better. [#9]

- The female owner of a DBE-certified engineering firm said, "They could increase the set-aside. In some ways its kinds of funny; there's 50 percent women in this population. Why is there only 3 percent set-aside? Is the argument that the companies are just not out there? Well, if they made a 50 percent set-aside, those companies will be there, fast. She also recommended that NDOT follow up and make sure that the DBE firms are actually being used and enforce their use. Her final recommendation was that NDOT should do a better job of advertising the available work. [#10]

- The Hispanic president of a minority trade association recommended that public websites such as NDOT, Clark County and McCarran Airport provide links to the other organizations' website and vice versa so that members can access opportunities. [#18]

- The white male president of a subsidiary of a publicly-traded supplier expressed that it would be to NDOT's or any agency's benefit to contract suppliers directly. As suppliers, it could be deemed illegal to price out three products and the prices are only good if all three items are purchased. He said that happens all the time but his firm is counseled that they can't do that. [#19]

  He added, "I'd like to see [NDOT] go to more low qualified bids and require the primes to list their suppliers [and subcontractors]. If they really want to clean up the

process, make them list anybody they intend to use because once they do that it gets rid of bid shopping, it gets rid of the unfairness then the DBE goals have to be met now and listed." [#19]

- The African-American female manager of a non-certified electrical contractor said, "If the public sector wants to truly involve smaller business, I think they're going to have to let them know what it takes to get in there. It shouldn't have to be a scavenger hunt to get in there. It's such a difficult process. Then let us figure out how to network." [#20]

  She also recommends that prime contractors be required to not use the same subcontractor all the time. Finally, she recommended that providing samples of old bids would be helpful so they know how to format a bid would be helpful. [#20]

- The Subcontinent Asian American principal of a DBE-certified engineering firm reported that he once asked if NDOT could provide a DBE requirement in the design process. The DBE staff said that they do not have the expertise to include it in the bid. They said that they are trying to but they don't know how to do it. [#26]

- The white female owner of a DBE-certified specialty contracting firm reported that NDOT self-performs their maintenance contracts for striping statewide. She's not sure why they do it in-house and she would like to give them a bid for restriping all of their roads and maintaining them for a five-year period. [#30]

- The Hispanic male director of a Hispanic advocacy group said, "What you need to do is that an entity like NDOT should take the lead in sensitizing the big boys and utilization of a supportive services contractor consultant is key because the consultant can work with both the primes and the subs and NDOT in making sure that the communication activity is constantly going." He further recommended that the consultant support and chastise the minority entity by telling them where their fallacies are and what they can do to improve. He went on to say, "This political correctness crap, in a lot of cases, is terrible in the marketplace for DBEs. I'd rather you call me a 'Spic' and give me a work than try to call me 'Mister' and don't give me anything." [#37]

  He also recommended that there are a few ways for a DBE to be successful on NDOT projects. He said, "Number one: NDOT lets out a lot of menial work, maintenance and patching under $250,000 that they let out all the time. I think that some of that work should be designated for qualified, viable DBEs and they should do it systematically. Don't rely on Nevada Revised Statute or the procurement program. Designate it and be definite about it. Be innovative and create parity. Number two: the prime contractors. You know who they are. You know the kind of work they do. You know their main interest in a lot of cases is to do the majority of the work themselves. Then designate certain line items, equipment rentals, to be subbed out to DBEs that are qualified to do it in the area." [#37]

I. Insights Regarding DBE Program or any other Race-/Ethnicity- or Gender-based Measures

Interviewees, participants in public hearings, and other individuals made a number of comments about race- and gender-based measures that public agencies use, including DBE contract goals, including comments regarding:

- NDOT or other public agency DBE subcontracting goals programs *(page110)*;
- Any other NDOT or other public agency programs *(page 113)*;
- Any issues regarding NDOT monitoring and enforcement of its programs, including any false DBE reporting or abuse of "good faith efforts" processes *(page 115)*;
- Any effects from discontinuing DBE contract goals in 2005 or reinstating goals program in recent years *(page 117)*;
- DBE fronts or fraud *(page 117)*;
- False reporting of DBE participation of falsifying good faith efforts *(page 118)*;
- Effects of DBE contract goals on other businesses *(page 120)*;

NDOT or other DBE subcontracting goals programs. There were many comments in favor of the Federal DBE Program, including DBE contract goals.

Some individuals had positive comments about DBE contract goals and the Federal DBE Program overall. Examples of such comments include the following:

- The Hispanic male co-owner of a materials supply and DBE-certified general contracting company said, "If they don't have a [DBE] goal, it's pretty difficult to monitor the program or to really create incentive for the primes to make it successful because it's just the lowest bidder and there's no real incentive for them to go out and find a DBE or a MBE." [#2]
- The white male co-owner of an engineering firm said, "I've gotta believe, and hope actually, that [DBE certification] does help some of the struggling minority businesses and women-owned businesses get a start that would be more difficult for them otherwise." [#7]
- The Hispanic president of a minority trade association said, "To me, it's all about working together, the entire community. I think there's plenty for everybody, if we could just share a little piece." [#18]
- The Hispanic male director of a Hispanic advocacy group said that most DBEs are new-starts all the way around. They have no experience in businesses. They may have been laborers or carpenters. The sons and daughters of these primes, who

want to become entrepreneurs, are running when these guys are just barely crawling so they never catch up. That's why you need a DBE program with goals. He said, "We lose the concept of the DBE program. And the concept is to open the doors and give the other folks opportunity to become viable and we have to be innovative and create avenues to assist them. Don't create barriers. [#37]

- The white male representative of a majority-owned demolition company noted that the inclusion of DBE goals in a prime contract doesn't pose any major difficulty, and has no bearing in whether or not his firm chooses to bid on that contract. He did say, however, that depending on the location of the project it can sometimes be difficult to find any qualified subcontractors, much less DBE certified ones. He claimed this was exacerbated for specialty subcontractors like electrical or mechanical engineers. He felt that DBEs face the same challenges as other small businesses, and that there's "tremendous opportunity" for DBEs with adequate bonding, insurance, and experience. [#41]

- The representative of a majority-owned contracting firm said, "The U.S. Government requires large businesses to subcontract specific percentages of large contracts to small businesses …. These requirements only apply to large businesses who are the successful bidder. There are usually financial penalties for these large businesses who do not comply with these small business subcontracting goals. These programs help smaller businesses to have a fighting chance to at least compete and win on small parts of these large contracts. Under current Nevada contracting law there is no financial incentive for large businesses to subcontract to smaller businesses. Large businesses are only required to show evidence that they attempted to advertise to small business categories. This does not accomplish the objective of providing better opportunities for subcontracting of small businesses. If there were financial incentives such as point systems where a larger business were given a higher overall score for their price proposal based on their proposed utilization of small businesses. And if these large businesses cannot show evidence that they have actually subcontracted to these small or minority owned businesses, then they receive a financial penalty at project completion by not receiving a portion or all of their retention, or possibly have their contract(s) terminated. Businesses make decision based on the bottom line. Placing an advertisement for small or minority business participation does not provide enough incentive for large businesses to actually award a subcontract to small business. If there were financial penalties (or rewards) for actually meeting or exceeding these required percentages then that would be enough incentive for large firms to actually award to small businesses. Until this happens, the current law is doing nothing more than artificially increasing advertising costs of large businesses that always end up being wrapped into their cost of doing business and in the end small businesses end up losing out." [AI#24]

- The director of a minority development agency said, "There probably would be if you were in a position to do something that the prime doesn't do, doesn't self-perform, but if you do something that the prime self-performs, no." He added that less than 1 percent of NDOTs total spend was with DBEs which he thinks is ridiculous and the goals needs to be race-based. [#23]

Some interviewees said that race- and gender-based programs should be discontinued or substantially changed. For example:

- The white male president of a general engineering firm said, "My personal opinion is [the NDOT DBE program] is a joke because everyone's using the exact same people. There's no new people that are being fed in to the program and until NDOT makes a change to help us get qualified people in to the program, it's not going to change. And, it's costing them money." [#8]

- He went on to say that the published list of DBE firms and the website list of DBE firms did not match each other but NDOT argued that it was exactly the same because they always think they're right and when he went back there the next day, they had made the changes he recommended. He said that there is a huge list of NDOT DBEs but a lot of them do not provide products or services that are relevant to what they need. He gave an example of a bike path project in Reno where there are no vendors on the DBE list that will work for what he needs. The project is simple. They just need to grade the path and pave it. NDOT recommended his firm hire a striping contractor in Colorado as their DBE. He reported that a contractor from Colorado does not want to travel to Nevada for a $10,000 job and NDOT does not understand their business. He said, "If [NDOTs] requiring [DBE goals], they've got to give us something to choose from other than a paper list or an emailed list." [#8]

- The white male president of a subsidiary of a publicly-traded supplier expressed that the DBE program isn't as effective as it was intended to be. He said it doesn't take women and minorities and put them in the position to succeed but that he thinks generally, those are great ideas. [#19]

  He also said, "If I may be frank, [the DBE program] is an absolute joke. If I was a disadvantaged business enterprise, I probably wouldn't feel like that but we're not. If there are goals for DBEs, we don't contribute to that so it becomes a competitive disadvantage at the onset. But the fact is no ready-mix company in this market does. What happens is that spawned a sub-tier market where I can't tell you how many times I've had companies call me and say 'you may supply concrete on this job but there's minority requirements/goals to be met, you don't meet 'em, but if you supply the concrete to me and if I, in turn sell it, then we can achieve the goal.' That may put some money in a DBEs wallet, but it isn't really doing them much good. That's why I say it's a joke." [#19]

- The African-American female manager of a non-certified electrical contractor said, "I know that they're required to [have subcontracting goals]. It sounds good, but from my understanding, it isn't as cut and dry as it looks. I don't know how it helps the DBE." She also said that she knows someone who has a DBE certification and it hasn't done anything for him. She said that her firm wants to be good because they're good, not because they're a minority. [#20]

- The white male manager of a publicly-traded engineering firm said, "It appears to me that some firms are automatically selected over and over again, even as subs to other firms and there just doesn't appear that they meet the criteria for being a DBE. There's a reasonably sized firm here that you can't compete [with]." He said that there is a DBE subcontractor that is in the same line of business as he is. He said, "[This] essentially shuts us out of the market. [His type of work is] considered a really low-value portion to projects as compared to what I've seen in other states and so they'll just say, 'check that box off and we'll let anybody, DBE, do [that type of work].' That has nothing to do with it. It's just the selection was made because they're a DBE. Their competency has nothing to do with it; they actually have very good people. The door is slammed in my face over and over again. Over a certain amount of time, we can't compete because now we don't have five projects done in the past five years for the same agency." He asked, "Where are all these DBEs that everybody says are out there?" [#27]

  Then he added, "My heartburn with that program is that I frankly don't think the DBE fits in to a lot of the services we provide. We're engineers. It's competitive. There' an awful lot you have to do to even get on those lists. Then, to automatically push set-aside and their only requirement is that a certain portion of the work has to be done by [a DBE]. I don't want to be overly dramatic, but that's against our code of ethics. It doesn't comply with the engineering code of ethics; the definition of competency. The selection isn't based on competency. You're adding another component to it ... There's nothing holding anybody back. There's a lack of really good people. If they're good, they're good. It doesn't matter if they're a woman or old or young or anything. It doesn't matter. If they're good, they're gold. To me, the DBE process compromises that. I don't want to suggest that the firm that gets all that work is incompetent in any way. For primes, it's an easy pick for them and it shuts out everybody else. " [#27]

- The white female owner of a DBE-certified civil engineering firm reported that she feels there are disadvantages of the DBE program to those businesses that are not in the program. She doesn't think there should be a DBE program but rather it should be a small business set aside. She said, "It should be race-neutral." [#31]

- In regards to the DBE program, the white male partner in a non-certified engineering firm said, "I think it's a negative. You get away from trying to find the most qualified person. I don't think it's right but it is what it is. It does not lead to competence at all. In fact, it leads to incompetence. My thought it that if a contractor needs to go out and fill a position based on something other than

qualifications, what have we accomplished here?" When asked how other firms feel about the DBE program, he said, "When you do hear something it's typically 'why do we have to do this?' It's reverse discrimination if you think about it. Just put everybody on equal footing and we'll be happy." [#32]

- The chief estimator of a publicly-traded construction company said, "One of the biggest challenges either state agency has had is how to manage the DBE Trucking. The asphalt material buy is so high that if we're buying and producing the asphalt, which we do, there's no room for DBE in that buy-and-haul, or that buy of the asphalt, so your trucking percentage on that job is so small that if the goal is five percent and the trucking is one percent, you just never get there. You just never can meet that." [#9]

Any other NDOT or public agency programs. Interviewees had comments regarding other public agency programs they had experienced. For example:

- The female owner of a DBE-certified engineering firm reported that California has been very proactive with their DBE Program and the California Clearing House (California Public Utilities Commission) has an easy process. She said, "It's speed dating in my mind." She also said that they bring contractors in to meet the DBEs and it's very easy because they all work cohesively and that's made a huge difference. [#5]

- The Hispanic male co-owner of a materials supply and DBE-certified general contracting company reported that they don't have a program in the city government and there are no goals. He said that the City has a MBE directory but they're not involved in it. [#2]

- The female owner of a DBE-certified engineering firm said, "We've got the 8(a) certification. Well, we've already used it up. We used the nine years up. We did a lot of work with Fallon Naval Air Station. Since we are no longer in the 8(a), they aren't using us anymore. It's kind of ironic. The idea is you get in the door with 8(a) and once they like you, they'll use you once you're not in 8(a). They've still got their 8(a) requirement so they've got to go find an 8(a)." She reported the certification expired in approximately 2004. She also said that there's a new federal program called the Online Representations and Certifications Application (ORCA) that is a semi-replacement to the 8(a) where you certify yourself by sending in all of your documentation to a Federal depository. She expressed that it's not quite as good as 8(a) because the 8(a) program required a complete set-aside but with this new federal program, you have to have two bids. [#10]

- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm reported that she's a participant in the BOYD Program which is a federally funded program for small business that includes 12 courses that are three and a half hours long. She reported that this program introduces attendees to State and NDOT officials and helps acquire contracts upon graduation. [#11]

- The African American proprietor of a DBE-certified general building contracting company reported that the MGM brings minority contractors in to mix and mingle but everyone there is a general contractor and it doesn't help to be there because he's a general and general contractors cannot hire other general contractors. [#12]

- The Hispanic president of a minority trade association reported that she went through training programs that MGM provided for her and about 22 small businesses. This program is what she attributes the success of her business to. [#18]

- The Subcontinent Asian American principal of a DBE-certified engineering firm reported that the Regional Transportation Commission also has a DBE goal but he hasn't seen anything percentage-wise. [#26]

- The Native American male owner of a DBE-certified electrical contracting company reported that he would recommend having a DBE certification to others but only through NDOT because they do it for free. The Nevada Minority Business Council (NMBC) charges for a DBE certification. They used to charge $250 but now they charge $750. He was told that it depends on the financial size of their company and he feels that the Minority Business Council is taking advantage of businesses by doing it that way. He doesn't think that NDOT will certify businesses unless they do "their type of work." Other businesses were getting DBE certified through NDOT even though they did not do work with NDOT because it cost money to get certified through the NMBC. [#34]

NDOT monitoring and enforcement of its programs. Some interviewees had comments regarding the implementation of the DBE program [including any false DBE reporting by primes or abuse of "good faith efforts" processes]

Some interviewees were critical about key aspects of the implementation of the Federal DBE Program. For example:

- The African American director of a minority development agency said, "There needs to be some requirement that there be inclusion because historically, exclusion has been the norm and those numbers, from year to year, reflect that and nothing's changed. So, there needs to be some legislation, something added to NRS statute that helps you address that issue because it has been an issue and it's a self-fulfilling prophecy where it comes to where a prime says, 'Well I would use a minority contractor but hell, I don't know where one is.' Well, no you can't find one because they've dried up and gone away." [#23]

- The Hispanic male director of a Hispanic advocacy group reported a major majority-owned contractor has a subcontractor prequalification questionnaire that is impossible to fill out and makes it very difficult for the DBEs to get hired. He said that the application requests insurance, bonding and banking information as well as project history for the last four to five years, OSHA reporting for the past three years, CMR history for three years, any OSHA citations, and other personal information. He said, "The objective of the DBE program was to create and

enhance disadvantage companies because they've never had the opportunities to participate on a fair and equitable basis and they still haven't because there's too many obstacles in the way." [#37]

- The white male partner in a majority-owned transportation engineering firm reported feeling that many of the DBE-certified firms he is aware of seem to be hired regularly and doing good work, and he wouldn't consider them disadvantaged. Further, he feels that those firms might be growing more and winning bigger contracts if they were not labeled as DBEs. [#38]

- The white male owner of a service disabled veteran small business-certified supplier and general contracting company wished that NDOT would include SDVOSBs and veteran owned small businesses in their definition of DBEs, as well as wishing they would put more effort into enforcing satisfaction of DBE subcontractor goals. He added that, although there are DBE goals companies are supposed to meet, Nevada doesn't really hold companies accountable to those goals; as long as a company demonstrates a good faith effort to attract DBE subcontractors, they don't have to actually meet those goals. He states that he doesn't believe any DBE in the state is receiving the support they are promised. [#42]

- The white male vice president of a majority owned trucking and aggregate company said, "The challenge of the public side is on some of these public jobs, we're not on an even playing field with some of the contracts we deal with. The minority businesses are given a five percent preference and with every bid being so tight, down to the penny, that five percent is everything so that's presenting a challenge. Then the other side is some of these general contractors are using trucking as their way to meet the DBE goals or credits … so a lot of times we're not even given a shot at a job because we're clearly, in my mind, clearly discriminated against and it's because of the Federal Program. I don't understand why a government would step in. They hand out food stamps and that's federal money and they don't tell them where to go buy their milk, they can take those food stamps anywhere yet on highway projects, they're told they have to spend part of their money with DBE type businesses. So I'm not really clear on why they would discriminate against one set of ethnicity. Why does the government say that this person has to spend their money with these types of businesses? That makes no sense. It's a form of discrimination." [#44]

  He added, "On the private side, they're just as tight as public jobs and it comes down to service, price and reputation … an honest day's work and an honest day's pay and that's the only way you either succeed or you fail …. I've never been told on the private side, 'you don't get the job because you're not a minority' and that's the frustration on the public side. I'm told all the time that 'federal dollars are spent on this job so we can't even take a number from you because you're not a minority.'" He later said, "The compliance officer said these programs aren't going away because the data shows [there's a disparity.] But that's because we started with one truck and it was a lot of sacrifice. They say the DBEs aren't surviving and I'm

thinking it's not surprise because everybody wants to jump in to business and have instant results, instant gratification and not put in the sacrifice that it takes. They think the reason they're not making it is because they're being discriminated against but that's not the case, it's because they aren't willing to put the work in." [#44]

- The representative of a Hispanic-owned DBE-certified engineering firm said, "The main barrier is working with primes. Most primes spend all their time and energy making "good faith efforts" but very little time actually subcontracting significant work to the small and disadvantaged community. It would be helpful if the DOT could encourage and promote the use of small engineering firms with larger firms especially on federally-funded projects." [AI#19]

Some business owners expressed that other DBEs were not abiding by trucking laws in order to fulfill DBE goals.

- The female owner of a DBE-certified trucking company reported that she's noticed that some trucking DBEs are not following the rules. She said that there are truck owners who are not abiding by the one-to-one match ruling. She reported that they may have one or two trucks and use trucks from their friends to supply a job so they're going over their matches. She said that NDOT is starting to check and she's mentioned it to the NDOT compliance department. She's also checked the DOT website to see that these DBEs only have two trucks registered with DOT but they'll have eight trucks out on the job. She thinks this is happening because big DBE goals are being set and there are not enough people to fulfill those goals. [#25]

- When asked about false DBE reporting, the white male vice president of a majority owned trucking and aggregate company said, "Oh yeah, what they do is, NDOT has cracked down on it now, but they had it where the DBE had one truck but then they would lease a bunch of trucks that weren't theirs and then those dollars were counted under their deal. They make up a crazy formula and then these DBEs would only have three trucks and then get to play god as to who was going to be out there on the job." [#44]

  In regards to abuse of DBE certification the same interviewee said, "Oh yeah, just in the fact that I've seen some of these companies have two or three trucks and yet they get a job that requires 15 trucks and they are just using that front so that they can control the job." [#44]

- The female owner of a trucking company reported that she has noticed some DBEs and primes abusing the allowable ratios for owned trucks. She said, "For every one truck, you can hire another truck to do the jobs and I'm seeing that some of the other DBEs are using trucks that are not even theirs — you know, they're using more than what they should be using on the match. So some of us are being left out, that are actual DBEs, and they're using other companies that aren't even DBEs." [PM#4]

- The Hispanic American owner of a DBE-certified trucking company reported the 49 CFR rules are confusing for both the prime and subcontractors. He explained a situation where he had been hired to provide trucks but was told he failed to meet his goal at the last minute and lost the job, which caused financial hardship. He reported that this was due to a lack of effective communication skills between himself, the prime and Contract Compliance. [WT #1] He added, "Eliminating the 26.55 (d) (5) rule would be disadvantageous for the trucking company that has a few trucks. We need to meet our goal with more trucks than we own, and being able to hire individuals not only benefits the DBE but also the economy. I cannot stress enough, the importance of 26.55 (d) (5) to the small firms." [WT #1]

One business owner expressed satisfaction with how NDOT enforces the DBE program. The chief estimator of a publicly-traded construction company reported that NDOT pays attention to DBEs and their involvement in the work. [#9]

Effects from discontinuing DBE contract goals in 2006 or reinstating contract goals program in recent years. Owners and managers of interviewed firms were asked about the changes in NDOT operation of the DBE Program in 2006.

- The white male partner in a majority-owned transportation engineering firm reported a general awareness that there had been changes, but did not know any specifics. [#38]

- In regards to the changes in the DBE program, the white male vice president of a majority owned trucking and aggregate company said, "Everybody was on an equal playing field. If a job came out, everybody had a fair shake at it. Does that mean I got every one of them? No, many times I was told they weren't using me or my price was too high or maybe they didn't like the service or where we were located but at least we had that opportunity. But in 2010 now, I've seen job after job after job that they went to a DBE and right here in our own home town local people are sitting here on unemployment not working." [#44]

MBE/WBE/DBE fronts or fraud. Many interviewees with a diverse range of experiences and opinions commented on the existence of fronts or fraud.

Several interviewees reported knowledge of examples of fronts or fraud. Some gave first-person accounts of instances they witnessed, whereas others spoke of less-specific instances or those of which they had no first-hand knowledge. For example:

- The white male president of a general engineering firm reported that he questions if the DBE material companies are legit even though they're on NDOT's website because he's seen a lot of pass-throughs. [#8]

- The male partner in a DBE-certified, woman-owned engineering firm said, "We've been asked to front jobs before which is where they want us to prime it to win it and they'll pay us a percentage and they do all the work. We've been asked to be on a job just for the set-asides and we've declined those opportunities because if you're not going to give us the work, we don't want to be part of it." [#13]

- The white male manager of a publicly-traded construction supply firm reported that he's witnessed abuse of the DBE program where a subcontractor would move a product through a minority entity to satisfy a DBE goal but it really was just pushing paperwork around. He said that it wasn't benefiting the DBEs. [#21]

- The white female owner of a DBE-certified civil engineering firm reported that she's heard of DBEs telling primes to go ahead and do the work and they will bill them for it so that the prime gets the DBE credit. [#31]

- The Hispanic American owner of a DBE-certified trucking company reported that there are two women-owned trucking companies that receive the majority of the trucking work on NDOT contracts and that there are other white males who have their wives certified as the owners of the trucking firms. [WT #1]

False reporting of DBE participation or falsifying good faith efforts. Some public agencies in Nevada, including NDOT, set DBE contract goals on certain projects. Prime contractors can meet the goals through subcontracting commitments or show good faith efforts to do so. The study team asked business owners and managers if they know of any false reporting of DBE participation or whether prime contractors falsify good faith efforts submissions.

Some business owners reported widespread abuse of the DBE Program through false reporting of DBE participation or falsifying good faith efforts. For example:

- In regards to false DBE reporting, the white male president of a general engineering firm said, "I'm sure that happens. I can't say that I know about that." [#8]

- The Asian Pacific female owner of a SBA- and DBE-certified environmental company recommended that the primes pursue more specific small businesses because primes will send out solicitations via fax or email to all the DBEs so that they can be compliant but they're not paying attention to what the DBEs are doing or what kinds of firms they are. [#16]

- The representative of a construction association reported that he has only seen a few cases where primes successfully used good faith efforts to comply with a DBE contract goal. [#17]

- In regards to false DBE reporting, the African-American female manager of a non-certified electrical contractor said, "[NDOT] said that, this last year, they didn't have as good of a handle on it as they will this year." [#20]

- The female owner of a DBE-certified trucking company reported that she experienced a project where a "good faith effort" was in the contract and the prime contractor did not use a DBE on the job. She also said that there have been a couple of times where projects suggest using DBEs but there are no goals set and they haven't contacted her for work. [#25]

- The Native American male owner of a DBE-certified electrical contracting company said, "[Prime contractors] send out good faith letters to try to get you to bid but it's lip service. They'll never plan to use you anyway." [#34]

- The white male owner of a service disabled veteran small business-certified supplier and general contracting company stated that, although there are DBE goals companies are supposed to meet, Nevada doesn't really hold companies accountable to those goals; as long as a company demonstrates a good faith effort to attract DBE subcontractors, they don't have to actually meet those goals. He states that he doesn't believe any DBE in the state is receiving the support they are promised. [#42]

Some interviewees representing MBE/WBEs said that prime contractors would list them on a contract to comply with the program, and then reduce or eliminate their work without informing the public agency. For example:

- The male partner in a DBE-certified, woman-owned engineering firm reported that prime contractors have used their resume and their set asides to win the job and then they take their price to another firm they've worked with and give them the work. He further reported that sometimes the hiring agency's contracting officer will follow up on that but then they give reasons like, they weren't comfortable with that firm and they want to use. [#13]

- The representative of a Hispanic-owned specialty contractor said, "Even if [the prime names] you as a subcontractor they can still take profitable work away because NRS 338.141 5(b) allows it. This statute allows a contractor to cut your prices, increase your scope etc., and impose onerous insurance requirements with impunity. So you either accept the contractor's new terms or they request your substitution by simply sending a letter to NDOT stating that you refused to sign the subcontract "after a reasonable amount of time." This out-and-out theft is aided and abetted by NDOT since NDOT grants substitutions as a matter of routine. In doing so, NDOT shifts the burden of overturning substitutions to the subcontractor forcing him to spend tens of thousands of dollars to hire legal counsel in what amounts to a Sisyphean task. [AI#21]

- A representative of the Latin Chamber of Commerce reported that prime contractors report SBEs or DBEs utilization on contracts and then they use another contractor. She said, "Sometimes I get the complaints. 'I thought I was supposed to be on this particular contract and they haven't called me back, and they're doing this with somebody else.' Because there's no follow through whoever is actually going and giving the money." [PM#18]

One DBE firm owner expressed that prime contractors hire her firm for only the amount of the goal instead of allowing her to complete the entire project.

- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm reported that the biggest challenge she faces is when prime consultants/contractors want to keep her service to the minimum because they want to keep the income to themselves so they try to use the DBE firm for the minimum amount required (usually 3 to 5 percent). She described a current project at the Airport and how if they only hire her for 3 to 5 percent of the contract, she won't be able to complete the work they want done efficiently. She said, "These guys just want to meet the quota, the goal, 3 percent, 5 percent. They are so stuck on those numbers and I just want to get away from that. Instead of looking at those hard numbers, [it makes sense] for the whole scope of services, that we've got a resource here that we can use for the duration of the job. We have a resource here that we can use for this line item, not just for 3 percent of the time, but for 100 percent of the time." [#11]

Effects of DBE contract goals on other businesses. Some business owners and managers provided insights on the impact of DBE project goals on non-certified firms. For example:

- When asked if the chief estimator of a publicly-traded construction company knew of any negative effects of the DBE program on businesses that are eligible, he said, "No, I think that they think there is. [The thought is that] they're not getting used because they don't bring any DBE value. I think that primarily that's not the case. There's been a time where, as we understood it, you've got to meet the goal. Even if there's a higher bidder than you on bid day, if you didn't meet the goal, they're gonna take that person. We've been in that position before where you select a DBE sub that's higher than the low bidder so in that case, they would be at a disadvantage because the reason they were selected was to make the goal and we ended up not being low. The prime contractor that was low did not make the goal but the good faith effort carried them through so we didn't get the job. That's the system not working. Yes it gives the DBE the job, but it then puts another business at a disadvantage and that's not what the program's all about." This was prior to 2005 when it was changed from "good faith efforts" to mandatory DBE goals. [#9]

- The female owner of a DBE-certified engineering firm reported that there is some resentment from non-DBE firms who think that DBEs may be getting an advantage. She said that she would not bring it up in the mining industry because they would resent it. [#10]

- The Asian Pacific female owner of a SBA- and DBE-certified environmental company said, "Most of the work in Nevada is going outside of Nevada as far as we're concerned. In other words, there are a lot of local jobs but most of those jobs are going out of Nevada, mainly to other firms that have certifications here just like we do. Probably because they're bigger companies. That's really a big concern of mine." [#16]

- The white male manager of a publicly-traded construction supply firm reported that NDOT's prime contractors partner with local companies to supply material and then they sub out the labor to fulfill the DBE goal to an out-of-state minority company. He said that it doesn't benefit Las Vegas or Nevada or NDOT. [#21]

- The female manager of a publicly-traded construction supply firm reported that she does not like when firms from out of Nevada come in and do NDOT work. She said that it doesn't make sense to her that large firms are not able to fulfill DBE goals so they have to go out of state to find DBE firms to do so. She said, "Those goals sometimes make the job go sideways." [#22]

- The female owner of a DBE-certified trucking company reported that it has taken a while for the large contractors to accept the DBE program and they're doing their due diligence to make it work. She's heard them in the past say they "hate this DBE Program." She said that prime contractors don't like to be told who they have to use. Some of them want to do the work themselves but they've all accepted it and they know they have to do it to get the projects. She also said that NDOT has been doing a better job reaching out to primes and letting them know what they need to do regarding the DBE program. This is evident by their attendance at SCORE and POP workshops. [#25]

- The white female owner of a DBE-certified specialty contracting firm reported that she thinks the older contractors think the DBE program was misused 20 to 30 years ago but the newer contractors are realizing that it's a requirement to do the job and they just want to meet the qualifications to get the job done. [#30]

- The white female owner of a DBE-certified civil engineering firm said, "I'm sure the larger firms don't like the program and don't think it's helpful because it's work they could be doing themselves. What's in it for them?" [#31]

- While discussing his firm's role as a prime contractor for NDOT, the white male partner in a majority-owned transportation engineering firm stated, "Even with a small project, we have to carve out a piece of work for a DBE, which just takes work that we could have otherwise done." He added, "Those who do have a DBE certification have a competitive advantage over other small businesses." [#38]

- The white male representative of a majority-owned material supplier and general contracting company related an experience wherein his firm was the low bidder for a large contract, but he chose to walk away from that opportunity after winning the contract because the DBE subcontractor goals requirement would have necessitated placing in a critical position a DBE subcontractor he wasn't confident could deliver. [#40]

  He told of another experience wherein a DBE subcontractor left in the middle of a project to pursue a more lucrative opportunity elsewhere. He highlighted that this didn't just represent a problem for his firm, but also for his client and for the public who being inconvenienced by the construction. His colleague added that when

something like this happens, the firm may no longer meet their DBE subcontractor goal, and can be penalized for it. [#40, #45]

- The white male vice president of a majority owned trucking and aggregate company reported that the DBEs aren't as efficient as his company so they don't get the work when there's not a DBE requirement. He said, "The DBE breaks down because they have old junk equipment out there, they're sleeping in their equipment on the road or they leave town and then don't make it back in time so then [the prime will] call us and ask us to do the job until the DBE can get it back together and then they go, 'well, thanks for helping us out on Monday but the DBE is back here on Tuesday because now they're back here to do it.'" Most the time the DBE doesn't have to work to get their job, they don't have any competition to get their job so they're not streamlined or as efficient as they can be. They're getting the work because strictly they're a minority. Where we have to get work based on quality, price, service and they're not. So in some ways, it becomes like a government employee because they know they're not going to be fired so they can get away with certain things…That's the competition we're up against. We have to be on top of everything." [#44]

  He further reported that the primes are having a hard time finding DBEs so there's only a few out there. There are three to four firms all over the state doing this work. He said, "They're coming in to this town that I've grown up in and get the work because they're a minority company and then leave again. And then the high school calls me, the little league calls me, everybody wants sponsorship yet when the jobs right here in our town, I can't even participate on it." [#44]

- The male representative of a construction supplier commented that he has a difficult time finding DBE subcontracting resources in Southern Nevada. Because of the lack of DBEs available to him, it's hard for him to put bids together. [PM#13]

Some business owners and other individuals indicated that DBE firms submit inflated bids to primes when there are DBE contract goals on a project. For example:

- The representative of a construction association said, "Take a hypothetical $10 million job with a 10 percent DBE goal. The DBE sub knows that the prime needs to meet the goal, so he might take a $500,000 subcontract and submit a bid for $700,000 since he knows he needs to be used on the job." He said he thinks that he has seen this but can't prove it. However, it isn't happening now because there isn't any work. [#17]

J. DBE Certification

Business owners and managers discussed the process for DBE certification and other certifications, including comments related to:

- Knowledge of certification opportunities *page 123)*;
- Ease or difficulty of becoming certified *(page 123)*;
- Advantages and disadvantages of DBE certification *(page 125)*;
- Any comments as to abuse of certification by firms or allegations of "front companies." (*page 128)*; and
- Other comments *(page 129)*.

Knowledge of certification opportunities. Many DBE firms acknowledged that they had knowledge of the DBE programs prior to becoming certified. For example:

- When asked if she was fully aware of the opportunities associated with having a DBE certification, the female owner of a DBE-certified engineering firm said, "Yes, but I had to search to become fully aware." She said that she searched for the opportunities through SCORE and SBA. She highly recommends SCORE mentoring to everyone she meets. [#5]

Ease or difficulty of becoming certified. Many interviewees commented on how easy or difficult it was to become certified.

A number of interviewees said that the DBE certification process was reasonable and some reported that it was relatively easy. For example:

- The female owner of a DBE-certified engineering firm reported that she feels the DBE certification is pretty easy and fair. Her firm became DBE certified soon after inception. To earn her certification, she was interviewed at her home. Her husband is a partner her in her company and she established that she was the majority owner in the firm and was awarded her certification. She said she knows of someone who was denied the certification because it was a husband and wife and the wife didn't demonstrate that she would be running the business and the interviewee feels that was fair. [#10]
- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm reported that the DBE certification process was not difficult but that it was time consuming to gather all of the information required. [#11]
- The African American proprietor of a DBE-certified general building contracting company reported that the certification process was effortless. [#12]

- The Asian Pacific female owner of a SBA- and DBE-certified environmental company reported that obtaining the DBE certification is fairly easy. She said, "They are making it easier now but there are no changes in my certification so it is easy to renew." [#16]

- The African American director of a minority development agency reported that he's currently working on MBE certifications with four companies. He said that the application process is cut and dry. It's just getting the supporting documents and filling out the application. [#23]

- The female owner of a DBE-certified trucking company reported that the DBE certification application process was a lot of paperwork but wasn't too difficult. The Procurement Outreach Program reviewed her packet before she submitted it to NDOT. NDOT did an interview and then notified her a few weeks later that she had been certified. [#25]

- The white female owner of a DBE-certified specialty contracting firm reported that she completed 300 pages of documentation to get DBE certification which took almost two years. She expressed that her experience with NDOT has been outstanding. She was worried about all the personal information she provided during her DBE certification going public and she researched it and found out that it all remains private. She said that NDOT interviewed ten of her employees on site. She said, "It was a good process." [#30]

Many interviewees reported difficulties with the DBE certification process. Several interviewees reported incidents in which state officials seemed too quick to make a judgment that the company applying for certification was a front. Other interviewees indicated that the certification process was time consuming or difficult. Examples of such comments included the following.

- The white female co-owner of a non-certified construction company reported that she had applied for DBE certification with NDOT and when she had her interview with an NDOT employee, she was told that it would not benefit her to go on with the certification because it looked like her husband owned the business. She also reported that her feelings were hurt, she was very disappointed, and she was treated unfairly. She recalled that many of the people she's talked to at the public entities she works with have told her that the DBE Program doesn't make any difference in how she gets work and now she's not sure that a DBE certification would give her a leg up. [#14]

- The African-American female manager of a non-certified electrical contractor reported that NDOT requires a lot of information during the application process, which she understands, but it's not the easiest thing. She said that it would be nice if there was an easier way it could be done.[#20]

- The Subcontinent Asian American principal of a DBE-certified engineering firm reported that getting the DBE certification was difficult because of all the information he had to gather. He thinks it makes sense and it's fair though. [#26]

- Regarding the DBE application process, the white female owner of a DBE-certified civil engineering firm said, "That was a fight for my life. [An NDOT staff member] had a preconceived notion and she distorted the facts to represent her position. Her preconceived notion was that my business partner was still involved in the company and that we had reorganized just to become a DBE." She said that she hired a third party company to determine the purchase price. [The NDOT staff member] didn't like the third party company and she had to spend another $4,000 to get the supportive documentation (calculations and tables). Her partner's voicemail was still on the phone and she said [the NDOT staff member] "hung her hat on that." It took her three months to get her certification. She brought her attorney to her hearing and he couldn't believe the things [the NDOT staff member] was saying. Interviewee #31 said, "She said 'I'm not going to support approval and I'm not going to support denial.'" The vote came down and [the NDOT staff member] was the only one in support of denial. Everyone else supported approval. She said, "That relationship is probably damaged. I don't know how it's going to affect our future. I hope it doesn't affect me getting work at NDOT. That's a concern. The burden of proof is on the applicant and I understand that but there's no way to fully defend yourself against somebody's preconceived notion and their misrepresentation of the facts. I wasn't provided an opportunity to provide a written response to her concerns." [#31]

- The Native American male owner of a DBE-certified electrical contracting company reported that he has to update his DBE certification every year. He said that it's harder now to get than it was in the past. In order to be certified, a firm has to provide their financials and the owner's birth certificate. He said that it used to be that [an NDOT staff member] would come to his house and get him certified. [#34]

- The male owner of a non-certified electrical contracting company said, "I don't think it's an easy process to get certified. I think it takes a lot longer than it should. I see a lot of contractors that try to get it done and they run in to walls and they need help to get it done a lot quicker. It would be helpful if they could get it a lot faster." [#35]

- The white male representative of a majority-owned demolition company reported that the information on how to gain DBE certification is readily available, but that the process itself was often incredibly difficult. While he acknowledged that making it harder to abuse the DBE program was necessary and appropriate, he felt that the process had become so difficult as to be detrimental to legitimate DBE companies.[#41]

- The female owner of a non-certified construction firm asked, "We're one of the businesses that [have] not been certified by DBE because the process is ugly and I'm curious why the program has failed? How many of us that seem to be in the threshold of a woman-owned, but married to her husband, that does the sales? They can't seem to get through the barrier of the requirements. It's still not really a good swallow when you can't get through the barrier and you have worked so hard to be

in this business and you're still not certified. I fall under the RTC program that we couldn't get to get certified … we still are fighting the fact that we should be certified." [PM#20]

- The Hispanic American representative of a DBE-certified construction supplier commented that small companies are fearful of the DBE application process due to its length and the documentation required. He recommended that seminars should be conducted for small firms to inform and educate them about the certification process. [PM#17]

- The minority male owner of a traffic engineering firm reported that his firm had been DBE-certified and then the rules were changed and he lost his certification due to the size of the firm. He was concerned that he would have to report personal financials to NDOT in order to be recertified and was uncomfortable about that information being public record. When the recession hit, he had to downsize his firm and the lack of DBE certification made that loss greater than it would have been if he had been certified. [PM#2]

Advantages and disadvantages of DBE certification. Interviews included broad discussion of whether and how DBE certification helped subcontractors obtain work from prime contractors.

Many of the owners and managers of DBE-certified firms interviewed indicated that certification helped their business get an initial opportunity to work with a prime contractor. For example:

- The female owner of a DBE-certified engineering firm reported that the benefit to being a woman-owned firm is when there's a WBE or DBE quota to be met. [#5]

- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm reported that that there are several advantages to being certified as a DBE including the set asides and the exposure that other small businesses don't get. She said that most people call her because they need a DBE on their project. [#11]

- The African American proprietor of a DBE-certified general building contracting company reported that he's hopeful that he's cracked the door open for opportunity by becoming DBE certified. [#12]

- The male partner in a DBE-certified, woman-owned engineering firm reported that having a DBE certification doesn't necessarily give them a leg up but it doesn't hurt them. He said that it gives them an opportunity to do work with someone who has set-aside contract requirements. When primes find out about their qualifications, they may be more interested in learning what their capabilities are for their contracts that include set-asides. He further expressed that if the request for proposal says that smaller businesses are "encouraged to participate," it does not benefit them. The solicitation has to specifically require DBE participation in order for them to consider using a small DBE firm. He said, "That's the big difference with those set-asides. It opens the door to allow us to talk to people we probably otherwise

wouldn't talk to and then when it is emphasized and it is a condition of award, or it's evaluated as part of award, then that gives the bigger business a lot more incentive to use us. Without that, we don't typically make it very far with the established firms."[#13]

- The female owner of a DBE-certified trucking company reported that she did not have success for the first year after she received the DBE certification. She said that last year, her DBE work was approximately 60 percent of her business. She said, "It built my business to over $800,000 a year and I put it to this DBE program." She also said that prior to becoming a DBE, she was doing all private work. [#25]

  The same interviewee also said, "I think it works because I've seen that it does work and it has helped my business. I don't really like wanting to be a threat to the other companies because I'm not big enough. I just want to get a little piece of the action is all. I'm not planning on getting real big like any of them anyhow." [#25]

- The Subcontinent Asian American principal of a DBE-certified engineering firm reported that the DBE certification is helpful because he wouldn't have a chance otherwise. He said that it's hard to compete as a small firm. He also said that he thinks the NDOT DBE Program is good and it seems like others think it's a good program too except that service firms have a hard time getting in on the design process. [#26]

- The white female owner of a DBE-certified specialty contracting firm said she had never felt the need to be DBE certified but she had recently seen some opportunity in obtaining a certification. Prior to applying for her DBE certification, she saw unqualified firms earn business because there was a DBE goal in a contract and they were DBE certified. She was not sure she wanted to be categorized in that group because she believes in the quality of her work and her firm. Then she and her firm's estimator started receiving calls from prime contractors who were asking if they could meet a DBE requirement and that's what prompted her to apply for it. She said there were also out-of-state DBEs coming in to do work because there were no local DBEs available to fulfill the requirements. She said, "I think the prime contractors are thrilled [that I've received my DBE certification] because there's been quite a bit of work, and about the fact that they can meet their DBE qualification and I'm going to give them a fair bid." [#30]

- The white female owner of a DBE-certified civil engineering firm said that she knew she wanted to become a DBE when her partner retired so that she had an advantage because it's hard to compete against the big firms as a small firm. She also said that it takes a lot of money, time and energy to beat big firms and as a DBE, there's an incentive for big firms to use DBE firms on their team. A big firm may use a small firm to get the work, but may not actually use them on the project. But as a DBE, there's incentive to not only put them on the team, but to use them. She reported that another larger consulting firm told her they are glad she's become a DBE because they're always looking for good DBEs. [#31]

- The Native American male owner of a DBE-certified electrical contracting company reported that being DBE-certified helped him get work at the airport. [#34]

- The female partner of a minority-owned trucking company reported that she has learned a lot on how to propose on NDOT contracts from NDOT and FHWA representatives. The help they provided led her firm to win its first NDOT contract. She added that the prime contractors are improving on their use of DBE trucking firms by splitting up the trucking among several DBE trucking firms. [PM#15]

Some interviews indicated that there are limited advantages, or even disadvantages, to being DBE certified. For example:

- The Hispanic male co-owner of a construction company stated that he didn't think there were any advantages to being MBE or DBE certified. He said that being a DBE is only "disadvantaged" businesses and they are not specific to woman-owned or minority-owned so that his firm would be lumped with everyone else. He asked, "So what good is that?" [#1]

- The Hispanic male co-owner of a materials supply and DBE-certified general contracting company reported that past NDOT work has been a positive experience. Being involved with NDOT provides more opportunities and introduces them to more primes but doesn't help with bonding. He said that he has gotten NDOT jobs due to past relationships, not DBE involvement. [#2]

- The female owner of a DBE-certified engineering firm said, "Unfortunately, [being a women-owned firm] has a bad connotation." [#5]

- The Asian Pacific female owner of a SBA- and DBE-certified environmental company reported that she does not feel her DBE status has helped her in any way. She said that perhaps it's a little more beneficial in California. She reported that Caltrans specifically bids out work with DBE set-asides and at one time, they said they required the use of "underutilized DBEs" which were specifically Asian, African American and Middle Eastern because Hispanics are no longer underutilized. The term was removed from the program last year. She reported that because she is Asian, she got more work out of it. She stated that she is not getting any work from the big prime contractors and it would be a very big help if she could get work with them. She expressed that the hardest part of being a DBE is breaking the barrier and getting in the door. [#16]

- The African-American female manager of a non-certified electrical contractor reported that she's not sure what advantages a DBE certification will bring but she understands there are minimum requirements. She does not think negatively about it but she doesn't think it's going to do wonders for her business either. She said that she's not sure if it's benefit the current DBEs. They're still going to apply but her expectations are not high. She expressed that she has some concerns that the certification may cost the DBE a job or put a label on them by a firm that does not support the DBE program. [#20]

- The African American director of a minority development agency reported that he sees no advantage to being DBE certified. The DBE companies he knew are not around anymore. They're not being replaced by new DBE firms because it takes a lot of money to get ready to do that kind of work. He said that it takes a level of expertise and experience. [#23]

- The principal of a woman-owned, DBE-certified supplier reported that her DBE certification in Nevada has not helped her. Because of DBE status, "You get a lot of bid applications that don't match what you do." [P #1]

Some DBEs expressed that there is a negative stigma associated with being a DBE firm. For example:

- The female manager of a DBE-certified engineering firm said, "Unfortunately, [being a women-owned firm] has a bad connotation." [#6]

- The white female owner of a DBE-certified civil engineering firm reported that she didn't apply for DBE certification when the firm first opened because "we did not want to be stigmatized as that. The stigma is that you get work because you're minority. Not because you can actually do it. It was important to us to prove that we could compete with the big firms." She said that she wants firms to come to them because they are a DBE and they know they do good work and want them on their team. Interviewee #31 said, "There's a number of DBE firms that struggle to be able do the work they say they can do. They don't have the experience or the expertise or qualifications to do it, which puts a burden on whoever uses them." [#31]

- The minority principal of an architectural firm reported that he resisted becoming a certified DBE because of the negative connotation associated with the term and because of the significant amount of paperwork required to become certified. He said, "I know many African American engineers and architects who don't like that term, like I didn't like it. We thought that somehow it says that we're not necessarily as good as everybody else." [PM#6]

- PM#11, the male president of the Urban Chamber of Commerce, reported that there is a negative stigma of incompetence that goes with being a DBE. He added that DBEs often have to be more competent than majority-owned firms just to survive. [PM#11]

Abuse of certification by firms or allegations of "front companies." Firm owners and managers discussed their experiences or lack thereof with DBE front companies and abuse of DBE certification.

Some business owners identified that they have not observed abuse of certification or that the revised certification process had eliminated the abuse of DBE "fronts." For example:

- The Asian-Pacific American female owner of a DBE-certified engineering and environmental consulting firm reported that the rigorous certification process makes it very difficult to "front" a DBE firm. [#11]
- The Hispanic male co-owner of a materials supply and DBE-certified general contracting company reported that they did not think there was any way to abuse the certification. [#2]
- The female owner of a DBE-certified trucking company reported that she has not seen any DBE fronts. She feels like NDOT takes a close look at qualifications during the interviews and they do a good job. [#25]
- The female partner of a DBE-certified surveying firm reported that the DBE process, when she first purchased the company, was relatively simple but now it is a lot different. She said that NDOT does personal interviews to verify that the DBE status is justified. She said, "I think that that process is really good. I like that a lot better. It makes me feel more secure. There is no question, where in the past, I think there was some question." She said that before NDOT started conducting interviews and verifying firms, somebody would have his wife front the business for the certification or put a minority in front. She said that it makes her feel better the way it is now. [#29]

A few interviewees were aware of "front companies" or had experienced them first hand. For example:

- The Asian Pacific female owner of a SBA- and DBE-certified environmental company reported that she is aware of DBE fronts where the firm is owned by a husband and wife and the husband is doing all the work but the wife is majority owner. [#16]
- The female owner of a DBE-certified engineering firm said, "I haven't heard of it but I do know that when I make my first contact with agencies, one of the first questions is 'does your husband work for the company?' and wanting to make sure I'm not a front. They've come and interviewed me before I received certification." [#5]
- The Hispanic male director of a Hispanic advocacy group recalled companies coming to him when he worked for NDOT and saying they wanted to apply for DBE certification. A brother and sister would ask for the sister to be majority

owner and be a woman-owned firm. He would explain that gave her to the right to make decisions and hire and fire whoever she wanted. The brother would then change his mind. Or a man would want to make his wife majority owner and he would go visit the office and the husband would have a huge office and the wife would have a very small office. These are the examples of DBE fronts that he has experienced. [#37]

- The representative of a construction association expressed concern about shams or companies that might be DBE-certified but not fit the spirit of the DBE program. For example, he sees companies setting up with 51 percent minority ownership and 49 percent ownership from a wealthy non-minority. [#17]

Other comments. Firm representatives had some final thoughts regarding their experiences in the construction industry.

Some firm owners and managers provided recommendations for the NDOT DBE program or advice for other DBEs. For example:

- When asked what advice they would give a firm just starting out as a DBE in regards to working with NDOT, the Hispanic male co-owner of a materials supply and DBE-certified general contracting company said that they would maybe recommend some seminars, education or direct communication about what jobs are available and what type of contractor and capabilities they're looking for. He said he feels overwhelmed by NDOT contracts and their size. [#3]

- The female owner of a DBE-certified engineering firm reported that NDOT needs to decide how involved they want to be with a DBE Program. She said that from the standpoint of a DBE, she does not want NDOT or other public agencies to waste her time if they're not going to value her like other public agencies do. She also recommended that NDOT facilitate meet and greets across the entire state, not just in Las Vegas. This will help small businesses develop partnering relationships with prime contractors. She added that California is really great at those and she attends them regularly. [#5]

- The white male president of a general engineering firm said, "The biggest thing is if you want people to succeed, you have to set them up to succeed. You can't set them up to fail. And this program is set up to fail and it's all thrown on the contractors with nobody else's insight and nobody else is really helping get the information. If you ask them if they're sending bid notices to all the people on their website, I guarantee they're not. They'll say 'that's the contractor's job.' Well, if we're all working together, why aren't we doing that? ... NDOT's thing is 'here's our list, why can't you find somebody?' Well, are we gonna have somebody come clean the offices for twelve years to get our dollars out of this? Give us somebody that's going to put some guardrail in, or give us somebody that can flag, or whatever. That's all we're asking for. But let's sit down and talk about it. I have an email in to NDOT right now about [asking them to] tell me who's setting up the DBE percentages. That was Tuesday and I got an email back saying 'Hey, I'm looking for the right

person for you to talk to' and today's Friday and I still haven't seen anything and this is with the higher ups. So, that's the frustrating part." He reported that NDOT is getting better but the DBE program is one that really needs some focus right now. Especially when the DBE goal requirements go from 3 to 6 percent to 10 percent out of the blue and nobody understands why. He recalled that NDOT seems to be getting better with the change in the administration. He said that they need people to be more accountable and they are becoming that way. [#8]

- The chief estimator of a publicly-traded construction company said, "I think that the DBE program needs more education. I think that the DBEs themselves need to be more educated. I think that the general contractor/prime contractor community needs to be educated more. NDOT certainly holds the expertise and the knowledge to do so. [My firm] is very supportive of the program in the sense that it's trying to help these businesses develop. And I think in any way possible, we are all for supporting it. Now, it's a little self-serving in the sense that we want to be compliant, we want to get work. If there's a DBE goal on the job, it's just another spec. I totally get trying to develop the businesses. But when there's a goal on a job and you have to do certain things, it's just like another spec. Where, if there's not that spec, you don't need to follow it. It's just the way it is. That's why I think that the more outreach you can do, the more education you can do, it will make it less of that and more of what we have with someone like MAPCA or some of these other ones where we have a job relationships on any job. I would just like to see NDOT to continue to outreach, continue to educate, continue to bring parties together. Because we all are living in this world with this program and these goals and the only way I think we get better is by working together on it." [#9]

  He also recalled that his firm has a local investment representative come to the office and offer financial advice. He recommended that NDOT do the same for their DBEs. He said that the Civil Rights group at NDOT knows the DBEs more than anybody because of the certification process and they shouldn't just leave it at that; that they should give them more. [#9]

- When asked what her final recommendations for NDOT were, the female owner of a DBE-certified engineering firm said, "I think increase the set-aside amount. Follow up on whether it's met and have that information disseminated to the primes and the subs. I think that'd be really helpful. Unbundling big projects and making them smaller. They could do sole sourcing to DBEs. " [#10]

- The male partner in a DBE-certified, woman-owned engineering firm said, "Nevada could do a better job advertising their available programs. They have several of them and it took us years to identify them." [#13]

- The minority co-owner of a general contracting and procurement firm recommended that small business should be defined as 50 or fewer employees rather than 99 or fewer as it is now. He said that would cut out some of the larger companies that are bidding on projects because sometimes larger companies will subsidize smaller firms so that they can ultimately get the work. [#15]

- The African American director of a minority development agency reported that NDOT is a government agency they haven't always seen eye to eye with. Over the years that he's been involved in the minority business community, there have been problems in regards to the portion of the spend that went to DBEs, not just minority businesses. He said, "What we've recognized and said in public, that might have embarrassed some people is that spending less than one tenth of one percent with DBEs is not good for the business community and in fact, it creates a situation where we have a self-fulfilling prophecy in that availability of these businesses is important and if these businesses don't have access to opportunity, then they won't be around to be available to do the kinds of work that NDOT, or the airport, or any other entity might need them to do." He said that because his organization says these things in public, representatives of NDOT are embarrassed. [#23]

- The white male manager of a publicly-traded engineering firm reported that NDOT has a very limited amount of resources (and funding) and a lot of work to do and their hands are tied. There are some big projects out there that could go but are enormously expensive. He said that the issue isn't really DBEs or disparity. The issue now is the State doesn't have any money. When things start up again, what NDOT will be faced with is that there will be a new environment for them to work in. Firms will be less experienced. [#27]

- The Hispanic male director of a Hispanic advocacy group stressed that the three main recommendations he has for NDOT are accountability from everybody concerned (FHWA, NDOT, primes and the DBEs), the implementation of a consultant and implementing teaming and/or mentoring programs. [#37]

- The white male owner of a service disabled veteran small business-certified supplier and general contracting company reported that the DBE laws in California provide benefits only to companies whose owner actually lives in California. He stated that he would like to see the same sort of law enacted in Nevada. Moreover, he informed us that there is currently a bill in the Nevada state legislature to do just that, though he has little confidence that it will pass. [#42]

- The representative of a woman-owned non-certified specialty contracting company said, "As far as DBE goes, they take all the affiliations and kind of associate them together which makes it hard. We are a woman-owned business but have other qualifications. Maybe make DBE a broader definition. [AI#3]

- The African-American representative of the Minority Business Development Center reported that he feels that NDOT's Civil Rights Officer should have the tools to do what she needs to change the current DBE situation because, "It's bad. I've seen, in the past eight years that I've been involved in this process, businesses dry up and go away for lack of opportunity. It's kind of a self-fulfilling that it's not a good thing." [PM#9]

- The female member of the community said, "My position is we continue to have studies. The results are the same. So when will NDOT implement these things so that there will be changes?" She later added, "If you're going to pay for a study, they are going to give you suggestions to make improvement, and you fail to do them. You failed. When are the changes going to be made?" [PM#14]

APPENDIX K.
Detailed Disparity Tables

Figure K-1 (2 pages)

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Agency																													
NDOT and local agencies	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
NDOT																											X	X	X
Local agencies																													
Funding																													
FHWA- and state-funded	X		X	X	X	X	X	X	X		X	X	X		X	X	X	X	X	X					X	X	X		
FHWA-funded		X								X				X							X	X	X					X	X
State-funded																								X					
Type																													
Transportation construction and engineering	X	X	X	X	X			X	X									X	X	X	X	X	X	X	X	X	X	X	X
Construction						X				X	X	X	X	X	X														
Engineering							X									X	X												
Time Period																													
2007-June 2012	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2007-2009				X																									
2010-June 2012					X																								
Contract role																													
Prime/sub	X	X	X	X	X	X	X			X	X							X	X	X	X	X	X	X			X	X	X
Prime								X				X				X									X	X			
Sub and supplier									X				X	X	X		X												
DBE contract goals																													
With and without DBE contract goals	X			X	X	X	X	X	X			X	X			X	X	X	X	X	X				X	X	X	X	
DBE contract goals		X								X				X								X							X
No DBE contract goals			X								X				X								X	X					
Region																													
Nevada	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				X	X	X	X	X	X	X	X	X
District 1 (Southern NV)																		X											
District 2 (NW NV)																			X										
District 3 (NE NV)																				X									
Contract size																													
All	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X
Small contracts*																									X				
Contracts awarded under informal bids program																													
Small contracts not awarded under informal bids program*																													
Other contracts**																										X			
Components of DBE goal																													
Analysis of potential DBEs																													

*Contracts under $250,000 for construction, under $100,000 for engineering

**Contracts $250,000 or more for construction, $100,000 or more for engineering

Figure K-1 (2 pages)

	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Agency														
NDOT and local agencies														X
NDOT	X	X	X	X	X	X	X	X	X	X	X	X		
Local agencies													X	
Funding														
FHWA- and state-funded					X	X	X	X	X	X	X	X	X	
FHWA-funded	X		X	X										X
State-funded		X												
Type														
Transportation construction and engineering	X	X											X	X
Construction			X	X	X		X	X	X	X	X			
Engineering						X						X		
Time Period														
2007-June 2012	X	X	X	X	X	X	X	X	X	X	X	X	X	
2007-2009														
2010-June 2012														X
Contract role														
Prime/sub	X	X	X	X	X	X							X	X
Prime							X	X	X	X	X	X		
Sub and supplier														
DBE contract goals														
With and without DBE contract goals			X			X	X	X	X	X	X	X	X	X
DBE contract goals				X										
No DBE contract goals	X	X			X									
Region														
Nevada	X	X	X	X	X	X	X	X	X	X	X	X	X	X
District 1 (Southern NV)														
District 2 (NW NV)														
District 3 (NE NV)														
Contract size														
All	X	X	X	X	X	X	X					X	X	X
Small contracts*								X						
Contracts awarded under informal bids program									X					
Small contracts not awarded under informal bids progra										X				
Other contracts**											X			
Components of DBE goal														
Analysis of potential DBEs														X

*Contracts under $250,000 for construction, under $10(

**Contracts $250,000 or more for construction, $100,00

Figure K-2.
Agency: NDOT and local agencies
Funding: FHWA- and state-funded
Type: Transportation construction and engineering
Time period: 2007-June 2012
Contract role: Prime/sub
With and without DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	1,896	$2,196,965	$2,196,965				
(2) MBE/WBE	291	$114,594	$114,594	5.2	7.4	-2.2	70.3
(3) WBE	217	$63,492	$63,492	2.9	1.2	1.7	200+
(4) MBE	74	$51,101	$51,101	2.3	6.2	-3.9	37.3
(5) African American-owned	6	$1,663	$1,665	0.1	0.3	-0.2	25.9
(6) Asian-Pacific American-owned	2	$44	$44	0.0	0.0	0.0	6.8
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.7	-0.7	0.0
(8) Hispanic American-owned	60	$48,695	$48,748	2.2	2.4	-0.1	93.7
(9) Native American-owned	5	$643	$644	0.0	2.8	-2.8	1.0
(10) Unknown MBE	1	$56					
(11) DBE-certified	103	$36,216	$36,216	1.6			
(12) Woman-owned DBE	63	$12,707	$12,707	0.6			
(13) Minority-owned DBE	40	$23,509	$23,509	1.1			
(14) African American-owned DBE	6	$1,663	$1,663	0.1			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	31	$21,229	$21,229	1.0			
(18) Native American-owned DBE	3	$617	$617	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-3.
Agency: NDOT and local agencies
Funding: FHWA-funded
Type: Transportation construction and engineering
Time period: 2007-June 2012
Contract role: Prime/sub
DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	306	$303,078	$303,078				
(2) MBE/WBE	76	$23,397	$23,397	7.7	9.8	-2.1	78.9
(3) WBE	56	$16,723	$16,723	5.5	1.9	3.6	200+
(4) MBE	20	$6,674	$6,674	2.2	7.9	-5.7	27.9
(5) African American-owned	3	$1,542	$1,542	0.5	0.3	0.2	164.2
(6) Asian-Pacific American-owned	1	$36	$36	0.0	0.0	0.0	39.5
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.8	-0.8	0.0
(8) Hispanic American-owned	14	$4,481	$4,481	1.5	2.4	-0.9	62.7
(9) Native American-owned	2	$615	$615	0.2	4.4	-4.2	4.6
(10) Unknown MBE	0	$0					
(11) DBE-certified	44	$12,473	$12,473	4.1			
(12) Woman-owned DBE	28	$7,543	$7,543	2.5			
(13) Minority-owned DBE	16	$4,930	$4,930	1.6			
(14) African American-owned DBE	3	$1,542	$1,542	0.5			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	11	$2,772	$2,772	0.9			
(18) Native American-owned DBE	2	$615	$615	0.2			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-4.
Agency: NDOT and local agencies
Funding: FHWA- and state-funded
Type: Transportation construction and engineering
Time period: 2007-June 2012
Contract role: Prime/sub
No DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	1,590	$1,893,887	$1,893,887				
(2) MBE/WBE	215	$91,197	$91,197	4.8	7.0	-2.2	68.4
(3) WBE	161	$46,769	$46,769	2.5	1.1	1.4	200+
(4) MBE	54	$44,427	$44,427	2.3	6.0	-3.6	39.2
(5) African American-owned	3	$121	$121	0.0	0.3	-0.3	2.2
(6) Asian-Pacific American-owned	1	$9	$9	0.0	0.0	0.0	1.5
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.7	-0.7	0.0
(8) Hispanic American-owned	46	$44,215	$44,270	2.3	2.4	0.0	98.7
(9) Native American-owned	3	$28	$28	0.0	2.6	-2.6	0.1
(10) Unknown MBE	1	$56					
(11) DBE-certified	59	$23,743	$23,743	1.3			
(12) Woman-owned DBE	35	$5,164	$5,164	0.3			
(13) Minority-owned DBE	24	$18,579	$18,579	1.0			
(14) African American-owned DBE	3	$121	$121	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	20	$18,457	$18,457	1.0			
(18) Native American-owned DBE	1	$1	$1	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-5.
Agency: NDOT and local agencies
Funding: FHWA- and state-funded
Type: Transportation construction and engineering
Time period: 2007-2009
Contract role: Prime/sub
With and without DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	829	$1,287,809	$1,287,809				
(2) MBE/WBE	114	$64,402	$64,402	5.0	6.0	-1.0	83.4
(3) WBE	88	$28,310	$28,310	2.2	0.8	1.4	200+
(4) MBE	26	$36,092	$36,092	2.8	5.2	-2.4	54.3
(5) African American-owned	1	$11	$11	0.0	0.2	-0.2	0.4
(6) Asian-Pacific American-owned	0	$0	$0	0.0	0.0	0.0	0.0
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.5	-0.5	0.0
(8) Hispanic American-owned	24	$36,080	$36,080	2.8	2.1	0.7	135.8
(9) Native American-owned	1	$1	$1	0.0	2.4	-2.4	0.0
(10) Unknown MBE	0	$0					
(11) DBE-certified	25	$20,830	$20,830	1.6			
(12) Woman-owned DBE	16	$3,623	$3,623	0.3			
(13) Minority-owned DBE	9	$17,207	$17,207	1.3			
(14) African American-owned DBE	1	$11	$11	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	7	$17,195	$17,195	1.3			
(18) Native American-owned DBE	1	$1	$1	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-6.
Agency: NDOT and local agencies
Funding: FHWA- and state-funded
Type: Transportation construction and engineering
Time period: 2010-June 2012
Contract role: Prime/sub
With and without DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	1,067	$909,156	$909,156				
(2) MBE/WBE	177	$50,192	$50,192	5.5	9.4	-3.9	58.5
(3) WBE	129	$35,183	$35,183	3.9	1.7	2.2	200+
(4) MBE	48	$15,009	$15,009	1.7	7.8	-6.1	21.2
(5) African American-owned	5	$1,652	$1,659	0.2	0.4	-0.2	45.8
(6) Asian-Pacific American-owned	2	$44	$44	0.0	0.0	0.0	13.2
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	1.1	-1.1	0.0
(8) Hispanic American-owned	36	$12,615	$12,662	1.4	2.8	-1.4	49.8
(9) Native American-owned	4	$642	$644	0.1	3.4	-3.4	2.1
(10) Unknown MBE	1	$56					
(11) DBE-certified	78	$15,386	$15,386	1.7			
(12) Woman-owned DBE	47	$9,084	$9,084	1.0			
(13) Minority-owned DBE	31	$6,302	$6,302	0.7			
(14) African American-owned DBE	5	$1,652	$1,652	0.2			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	24	$4,034	$4,034	0.4			
(18) Native American-owned DBE	2	$615	$615	0.1			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-7.
Agency: NDOT and local agencies
Funding: FHWA- and state-funded
Type: Construction
Time period: 2007-June 2012
Contract role: Prime/sub
With and without DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	1,576	$2,007,154	$2,007,154				
(2) MBE/WBE	274	$114,104	$114,104	5.7	7.0	-1.3	81.3
(3) WBE	210	$63,376	$63,376	3.2	1.2	1.9	200+
(4) MBE	64	$50,728	$50,728	2.5	5.8	-3.2	43.8
(5) African American-owned	6	$1,663	$1,665	0.1	0.3	-0.2	28.1
(6) Asian-Pacific American-owned	2	$44	$44	0.0	0.0	0.0	8.2
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.8	-0.8	0.0
(8) Hispanic American-owned	52	$48,340	$48,393	2.4	2.1	0.3	112.5
(9) Native American-owned	3	$625	$626	0.0	2.5	-2.5	1.2
(10) Unknown MBE	1	$56					
(11) DBE-certified	92	$35,844	$35,844	1.8			
(12) Woman-owned DBE	60	$12,675	$12,675	0.6			
(13) Minority-owned DBE	32	$23,170	$23,170	1.2			
(14) African American-owned DBE	6	$1,663	$1,663	0.1			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	24	$20,891	$20,891	1.0			
(18) Native American-owned DBE	2	$615	$615	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-8.
Agency: NDOT and local agencies
Funding: FHWA- and state-funded
Type: Engineering
Time period: 2007-June 2012
Contract role: Prime/sub
With and without DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	320	$189,811	$189,811				
(2) MBE/WBE	17	$489	$489	0.3	11.9	-11.7	2.2
(3) WBE	7	$116	$116	0.1	0.7	-0.6	9.3
(4) MBE	10	$373	$373	0.2	11.3	-11.1	1.7
(5) African American-owned	0	$0	$0	0.0	0.3	-0.3	0.0
(6) Asian-Pacific American-owned	0	$0	$0	0.0	0.1	-0.1	0.0
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.1	-0.1	0.0
(8) Hispanic American-owned	8	$356	$356	0.2	4.7	-4.5	4.0
(9) Native American-owned	2	$18	$18	0.0	6.1	-6.1	0.2
(10) Unknown MBE	0	$0					
(11) DBE-certified	11	$371	$371	0.2			
(12) Woman-owned DBE	3	$32	$32	0.0			
(13) Minority-owned DBE	8	$339	$339	0.2			
(14) African American-owned DBE	0	$0	$0	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	7	$338	$338	0.2			
(18) Native American-owned DBE	1	$1	$1	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-9.
Agency: NDOT and local agencies
Funding: FHWA- and state-funded
Type: Transportation construction and engineering
Time period: 2007-June 2012
Contract role: Prime
With and without DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	568	$1,729,328	$1,729,328				
(2) MBE/WBE	32	$13,668	$13,668	0.8	5.5	-4.7	14.4
(3) WBE	24	$10,485	$10,485	0.6	0.3	0.3	191.3
(4) MBE	8	$3,183	$3,183	0.2	5.2	-5.0	3.6
(5) African American-owned	1	$100	$100	0.0	0.2	-0.2	3.4
(6) Asian-Pacific American-owned	0	$0	$0	0.0	0.0	0.0	0.0
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.0	0.0	100.0
(8) Hispanic American-owned	7	$3,083	$3,083	0.2	1.5	-1.3	11.7
(9) Native American-owned	0	$0	$0	0.0	3.5	-3.5	0.0
(10) Unknown MBE	0	$0					
(11) DBE-certified	13	$1,818	$1,818	0.1			
(12) Woman-owned DBE	10	$983	$983	0.1			
(13) Minority-owned DBE	3	$835	$835	0.0			
(14) African American-owned DBE	1	$100	$100	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	2	$735	$735	0.0			
(18) Native American-owned DBE	0	$0	$0	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-10.
Agency: NDOT and local agencies
Funding: FHWA- and state-funded
Type: Transportation construction and engineering
Time period: 2007-June 2012
Contract role: Sub and supplier
With and without DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	1,328	$467,637	$467,637				
(2) MBE/WBE	259	$100,926	$100,926	21.6	14.6	7.0	147.9
(3) WBE	193	$53,008	$53,008	11.3	4.4	7.0	200+
(4) MBE	66	$47,918	$47,918	10.2	10.2	0.0	100.2
(5) African American-owned	5	$1,564	$1,565	0.3	0.7	-0.4	45.2
(6) Asian-Pacific American-owned	2	$44	$44	0.0	0.1	-0.1	6.9
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	3.4	-3.4	0.0
(8) Hispanic American-owned	53	$45,612	$45,665	9.8	5.5	4.3	178.3
(9) Native American-owned	5	$643	$644	0.1	0.5	-0.3	29.0
(10) Unknown MBE	1	$56					
(11) DBE-certified	90	$34,398	$34,398	7.4			
(12) Woman-owned DBE	53	$11,724	$11,724	2.5			
(13) Minority-owned DBE	37	$22,674	$22,674	4.8			
(14) African American-owned DBE	5	$1,564	$1,564	0.3			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	29	$20,494	$20,494	4.4			
(18) Native American-owned DBE	3	$617	$617	0.1			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-11.
Agency: NDOT and local agencies
Funding: FHWA-funded
Type: Construction
Time period: 2007-June 2012
Contract role: Prime/sub
DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	305	$302,581	$302,581				
(2) MBE/WBE	76	$23,397	$23,397	7.7	9.8	-2.0	79.1
(3) WBE	56	$16,723	$16,723	5.5	1.9	3.6	200+
(4) MBE	20	$6,674	$6,674	2.2	7.9	-5.7	28.0
(5) African American-owned	3	$1,542	$1,542	0.5	0.3	0.2	166.0
(6) Asian-Pacific American-owned	1	$36	$36	0.0	0.0	0.0	39.5
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.8	-0.8	0.0
(8) Hispanic American-owned	14	$4,481	$4,481	1.5	2.3	-0.9	63.2
(9) Native American-owned	2	$615	$615	0.2	4.4	-4.2	4.6
(10) Unknown MBE	0	$0					
(11) DBE-certified	44	$12,473	$12,473	4.1			
(12) Woman-owned DBE	28	$7,543	$7,543	2.5			
(13) Minority-owned DBE	16	$4,930	$4,930	1.6			
(14) African American-owned DBE	3	$1,542	$1,542	0.5			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	11	$2,772	$2,772	0.9			
(18) Native American-owned DBE	2	$615	$615	0.2			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-12.
Agency: NDOT and local agencies
Funding: FHWA- and state-funded
Type: Construction
Time period: 2007-June 2012
Contract role: Prime/sub
No DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	1,271	$1,704,573	$1,704,573				
(2) MBE/WBE	198	$90,707	$90,707	5.3	6.5	-1.2	81.9
(3) WBE	154	$46,653	$46,653	2.7	1.1	1.6	200+
(4) MBE	44	$44,054	$44,054	2.6	5.4	-2.8	47.9
(5) African American-owned	3	$121	$121	0.0	0.3	-0.3	2.4
(6) Asian-Pacific American-owned	1	$9	$9	0.0	0.0	0.0	1.9
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.8	-0.8	0.0
(8) Hispanic American-owned	38	$43,859	$43,914	2.6	2.1	0.5	122.2
(9) Native American-owned	1	$10	$10	0.0	2.2	-2.2	0.0
(10) Unknown MBE	1	$56					
(11) DBE-certified	48	$23,372	$23,372	1.4			
(12) Woman-owned DBE	32	$5,132	$5,132	0.3			
(13) Minority-owned DBE	16	$18,240	$18,240	1.1			
(14) African American-owned DBE	3	$121	$121	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	13	$18,119	$18,119	1.1			
(18) Native American-owned DBE	0	$0	$0	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-13.
Agency: NDOT and local agencies
Funding: FHWA- and state-funded
Type: Construction
Time period: 2007-June 2012
Contract role: Prime
With and without DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	344	$1,562,953	$1,562,953				
(2) MBE/WBE	29	$13,626	$13,626	0.9	4.8	-3.9	18.2
(3) WBE	21	$10,442	$10,442	0.7	0.3	0.4	200+
(4) MBE	8	$3,183	$3,183	0.2	4.5	-4.3	4.5
(5) African American-owned	1	$100	$100	0.0	0.2	-0.2	3.9
(6) Asian-Pacific American-owned	0	$0	$0	0.0	0.0	0.0	0.0
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.0	0.0	100.0
(8) Hispanic American-owned	7	$3,083	$3,083	0.2	1.2	-1.0	16.2
(9) Native American-owned	0	$0	$0	0.0	3.1	-3.1	0.0
(10) Unknown MBE	0	$0					
(11) DBE-certified	12	$1,807	$1,807	0.1			
(12) Woman-owned DBE	9	$972	$972	0.1			
(13) Minority-owned DBE	3	$835	$835	0.1			
(14) African American-owned DBE	1	$100	$100	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	2	$735	$735	0.0			
(18) Native American-owned DBE	0	$0	$0	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-14.
Agency: NDOT and local agencies
Funding: FHWA- and state-funded
Type: Construction
Time period: 2007-June 2012
Contract role: Sub and supplier
With and without DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	1,232	$444,201	$444,201				
(2) MBE/WBE	245	$100,479	$100,479	22.6	14.8	7.8	153.0
(3) WBE	189	$52,934	$52,934	11.9	4.5	7.4	200+
(4) MBE	56	$47,545	$47,545	10.7	10.3	0.4	103.9
(5) African American-owned	5	$1,564	$1,566	0.4	0.8	-0.4	46.6
(6) Asian-Pacific American-owned	2	$44	$44	0.0	0.1	-0.1	8.4
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	3.5	-3.5	0.0
(8) Hispanic American-owned	45	$45,256	$45,309	10.2	5.4	4.8	189.0
(9) Native American-owned	3	$625	$626	0.1	0.5	-0.4	28.5
(10) Unknown MBE	1	$56					
(11) DBE-certified	80	$34,038	$34,038	7.7			
(12) Woman-owned DBE	51	$11,703	$11,703	2.6			
(13) Minority-owned DBE	29	$22,335	$22,335	5.0			
(14) African American-owned DBE	5	$1,564	$1,564	0.4			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	22	$20,156	$20,156	4.5			
(18) Native American-owned DBE	2	$615	$615	0.1			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-15.
Agency: NDOT and local agencies
Funding: FHWA-funded
Type: Construction
Time period: 2007-June 2012
Contract role: Sub and supplier
DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	262	$68,713	$68,713				
(2) MBE/WBE	75	$21,140	$21,140	30.8	18.6	12.2	165.6
(3) WBE	55	$14,466	$14,466	21.1	7.0	14.0	200+
(4) MBE	20	$6,674	$6,674	9.7	11.5	-1.8	84.1
(5) African American-owned	3	$1,542	$1,542	2.2	1.0	1.3	200+
(6) Asian-Pacific American-owned	1	$36	$36	0.1	0.1	-0.1	39.5
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	3.5	-3.5	0.0
(8) Hispanic American-owned	14	$4,481	$4,481	6.5	6.4	0.1	101.6
(9) Native American-owned	2	$615	$615	0.9	0.5	0.4	173.0
(10) Unknown MBE	0	$0					
(11) DBE-certified	44	$12,473	$12,473	18.2			
(12) Woman-owned DBE	28	$7,543	$7,543	11.0			
(13) Minority-owned DBE	16	$4,930	$4,930	7.2			
(14) African American-owned DBE	3	$1,542	$1,542	2.2			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	11	$2,772	$2,772	4.0			
(18) Native American-owned DBE	2	$615	$615	0.9			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-16.
Agency: NDOT and local agencies
Funding: FHWA- and state-funded
Type: Construction
Time period: 2007-June 2012
Contract role: Sub and supplier
No DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	970	$375,488	$375,488				
(2) MBE/WBE	170	$79,339	$79,339	21.1	14.1	7.0	149.9
(3) WBE	134	$38,468	$38,468	10.2	4.0	6.2	200+
(4) MBE	36	$40,871	$40,871	10.9	10.1	0.8	108.1
(5) African American-owned	2	$21	$21	0.0	0.7	-0.7	0.8
(6) Asian-Pacific American-owned	1	$9	$9	0.0	0.1	-0.1	1.9
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	3.5	-3.5	0.0
(8) Hispanic American-owned	31	$40,776	$40,831	10.9	5.2	5.7	200+
(9) Native American-owned	1	$10	$10	0.0	0.5	-0.5	0.5
(10) Unknown MBE	1	$56					
(11) DBE-certified	36	$21,565	$21,565	5.7			
(12) Woman-owned DBE	23	$4,160	$4,160	1.1			
(13) Minority-owned DBE	13	$17,405	$17,405	4.6			
(14) African American-owned DBE	2	$21	$21	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	11	$17,384	$17,384	4.6			
(18) Native American-owned DBE	0	$0	$0	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-17.
Agency: NDOT and local agencies
Funding: FHWA- and state-funded
Type: Engineering
Time period: 2007-June 2012
Contract role: Prime
With and without DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	224	$166,375	$166,375				
(2) MBE/WBE	3	$42	$42	0.0	12.1	-12.0	0.2
(3) WBE	3	$42	$42	0.0	0.5	-0.5	5.3
(4) MBE	0	$0	$0	0.0	11.6	-11.6	0.0
(5) African American-owned	0	$0	$0	0.0	0.2	-0.2	0.0
(6) Asian-Pacific American-owned	0	$0	$0	0.0	0.0	0.0	100.0
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.0	0.0	100.0
(8) Hispanic American-owned	0	$0	$0	0.0	4.4	-4.4	0.0
(9) Native American-owned	0	$0	$0	0.0	6.9	-6.9	0.0
(10) Unknown MBE	0	$0					
(11) DBE-certified	1	$11	$11	0.0			
(12) Woman-owned DBE	1	$11	$11	0.0			
(13) Minority-owned DBE	0	$0	$0	0.0			
(14) African American-owned DBE	0	$0	$0	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	0	$0	$0	0.0			
(18) Native American-owned DBE	0	$0	$0	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-18.
Agency: NDOT and local agencies
Funding: FHWA- and state-funded
Type: Engineering
Time period: 2007-June 2012
Contract role: Sub and supplier
With and without DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	96	$23,436	$23,436				
(2) MBE/WBE	14	$447	$447	1.9	10.8	-8.9	17.6
(3) WBE	4	$74	$74	0.3	1.9	-1.6	16.4
(4) MBE	10	$373	$373	1.6	8.9	-7.3	17.9
(5) African American-owned	0	$0	$0	0.0	0.4	-0.4	0.0
(6) Asian-Pacific American-owned	0	$0	$0	0.0	0.5	-0.5	0.0
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.9	-0.9	0.0
(8) Hispanic American-owned	8	$356	$356	1.5	7.0	-5.5	21.6
(9) Native American-owned	2	$18	$18	0.1	0.1	0.0	77.9
(10) Unknown MBE	0	$0					
(11) DBE-certified	10	$360	$360	1.5			
(12) Woman-owned DBE	2	$21	$21	0.1			
(13) Minority-owned DBE	8	$339	$339	1.4			
(14) African American-owned DBE	0	$0	$0	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	7	$338	$338	1.4			
(18) Native American-owned DBE	1	$1	$1	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-19.
Agency: NDOT and local agencies
Funding: FHWA- and state-funded
Type: Transportation construction and engineering
Time period: 2007-June 2012
Contract role: Prime/sub
With and without DBE contract goals
Region: District 1 (Southern NV)

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	764	$1,265,713	$1,265,713				
(2) MBE/WBE	127	$67,310	$67,310	5.3	6.2	-0.8	86.3
(3) WBE	71	$22,244	$22,244	1.8	0.9	0.9	197.8
(4) MBE	56	$45,066	$45,066	3.6	5.3	-1.7	67.5
(5) African American-owned	3	$121	$121	0.0	0.2	-0.2	4.1
(6) Asian-Pacific American-owned	2	$44	$44	0.0	0.0	0.0	14.9
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.8	-0.8	0.0
(8) Hispanic American-owned	46	$44,218	$44,273	3.5	1.9	1.6	182.4
(9) Native American-owned	4	$627	$627	0.0	2.3	-2.2	2.2
(10) Unknown MBE	1	$56					
(11) DBE-certified	44	$25,753	$25,753	2.0			
(12) Woman-owned DBE	17	$5,880	$5,880	0.5			
(13) Minority-owned DBE	27	$19,873	$19,873	1.6			
(14) African American-owned DBE	3	$121	$121	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	21	$19,136	$19,136	1.5			
(18) Native American-owned DBE	3	$617	$617	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-20.
Agency: NDOT and local agencies
Funding: FHWA- and state-funded
Type: Transportation construction and engineering
Time period: 2007-June 2012
Contract role: Prime/sub
With and without DBE contract goals
Region: District 2 (NW NV)

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	703	$538,986	$538,986				
(2) MBE/WBE	99	$23,313	$23,313	4.3	8.9	-4.5	48.8
(3) WBE	87	$19,872	$19,872	3.7	1.6	2.1	200+
(4) MBE	12	$3,441	$3,441	0.6	7.3	-6.7	8.8
(5) African American-owned	3	$1,542	$1,542	0.3	0.4	-0.1	78.6
(6) Asian-Pacific American-owned	0	$0	$0	0.0	0.0	0.0	0.0
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.9	-0.9	0.0
(8) Hispanic American-owned	8	$1,882	$1,882	0.3	2.8	-2.5	12.3
(9) Native American-owned	1	$16	$16	0.0	3.2	-3.2	0.1
(10) Unknown MBE	0	$0					
(11) DBE-certified	35	$4,992	$4,992	0.9			
(12) Woman-owned DBE	26	$1,813	$1,813	0.3			
(13) Minority-owned DBE	9	$3,179	$3,179	0.6			
(14) African American-owned DBE	3	$1,542	$1,542	0.3			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	6	$1,637	$1,637	0.3			
(18) Native American-owned DBE	0	$0	$0	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-21.
Agency: NDOT and local agencies
Funding: FHWA- and state-funded
Type: Transportation construction and engineering
Time period: 2007-June 2012
Contract role: Prime/sub
With and without DBE contract goals
Region: District 3 (NE NV)

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	300	$330,941	$330,941				
(2) MBE/WBE	56	$22,713	$22,713	6.9	8.8	-2.0	77.7
(3) WBE	54	$20,613	$20,613	6.2	1.5	4.7	200+
(4) MBE	2	$2,100	$2,100	0.6	7.3	-6.7	8.7
(5) African American-owned	0	$0	$0	0.0	0.4	-0.4	0.0
(6) Asian-Pacific American-owned	0	$0	$0	0.0	0.0	0.0	0.0
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.3	-0.3	0.0
(8) Hispanic American-owned	2	$2,100	$2,100	0.6	2.4	-1.8	26.4
(9) Native American-owned	0	$0	$0	0.0	4.3	-4.3	0.0
(10) Unknown MBE	0	$0					
(11) DBE-certified	19	$5,299	$5,299	1.6			
(12) Woman-owned DBE	18	$4,996	$4,996	1.5			
(13) Minority-owned DBE	1	$303	$303	0.1			
(14) African American-owned DBE	0	$0	$0	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	1	$303	$303	0.1			
(18) Native American-owned DBE	0	$0	$0	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-22.
Agency: NDOT and local agencies
Funding: FHWA-funded
Type: Transportation construction and engineering
Time period: 2007-June 2012
Contract role: Prime/sub
With and without DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	1,356	$1,916,099	$1,916,099				
(2) MBE/WBE	214	$107,528	$107,528	5.6	7.1	-1.4	79.5
(3) WBE	157	$57,841	$57,841	3.0	1.1	1.9	200+
(4) MBE	57	$49,687	$49,687	2.6	6.0	-3.4	43.4
(5) African American-owned	4	$1,553	$1,553	0.1	0.2	-0.2	33.9
(6) Asian-Pacific American-owned	2	$44	$44	0.0	0.0	0.0	8.8
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.8	-0.8	0.0
(8) Hispanic American-owned	46	$47,447	$47,447	2.5	2.1	0.3	115.5
(9) Native American-owned	5	$643	$643	0.0	2.8	-2.8	1.2
(10) Unknown MBE	0	$0					
(11) DBE-certified	81	$34,851	$34,851	1.8			
(12) Woman-owned DBE	50	$11,855	$11,855	0.6			
(13) Minority-owned DBE	31	$22,996	$22,996	1.2			
(14) African American-owned DBE	4	$1,553	$1,553	0.1			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	24	$20,826	$20,826	1.1			
(18) Native American-owned DBE	3	$617	$617	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-23.
Agency: NDOT and local agencies
Funding: FHWA-funded
Type: Transportation construction and engineering
Time period: 2007-June 2012
Contract role: Prime/sub
DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	306	$303,078	$303,078				
(2) MBE/WBE	76	$23,397	$23,397	7.7	9.8	-2.1	78.9
(3) WBE	56	$16,723	$16,723	5.5	1.9	3.6	200+
(4) MBE	20	$6,674	$6,674	2.2	7.9	-5.7	27.9
(5) African American-owned	3	$1,542	$1,542	0.5	0.3	0.2	164.2
(6) Asian-Pacific American-owned	1	$36	$36	0.0	0.0	0.0	39.5
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.8	-0.8	0.0
(8) Hispanic American-owned	14	$4,481	$4,481	1.5	2.4	-0.9	62.7
(9) Native American-owned	2	$615	$615	0.2	4.4	-4.2	4.6
(10) Unknown MBE	0	$0					
(11) DBE-certified	44	$12,473	$12,473	4.1			
(12) Woman-owned DBE	28	$7,543	$7,543	2.5			
(13) Minority-owned DBE	16	$4,930	$4,930	1.6			
(14) African American-owned DBE	3	$1,542	$1,542	0.5			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	11	$2,772	$2,772	0.9			
(18) Native American-owned DBE	2	$615	$615	0.2			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-24.
Agency: NDOT and local agencies
Funding: FHWA-funded
Type: Transportation construction and engineering
Time period: 2007-June 2012
Contract role: Prime/sub
No DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	1,050	$1,613,021	$1,613,021				
(2) MBE/WBE	138	$84,131	$84,131	5.2	6.5	-1.3	79.7
(3) WBE	101	$41,118	$41,118	2.5	0.9	1.6	200+
(4) MBE	37	$43,013	$43,013	2.7	5.6	-3.0	47.5
(5) African American-owned	1	$10	$10	0.0	0.2	-0.2	0.3
(6) Asian-Pacific American-owned	1	$9	$9	0.0	0.0	0.0	2.1
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.8	-0.8	0.0
(8) Hispanic American-owned	32	$42,966	$42,966	2.7	2.1	0.6	126.7
(9) Native American-owned	3	$28	$28	0.0	2.5	-2.5	0.1
(10) Unknown MBE	0	$0					
(11) DBE-certified	37	$22,378	$22,378	1.4			
(12) Woman-owned DBE	22	$4,313	$4,313	0.3			
(13) Minority-owned DBE	15	$18,066	$18,066	1.1			
(14) African American-owned DBE	1	$10	$10	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	13	$18,054	$18,054	1.1			
(18) Native American-owned DBE	1	$1	$1	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-25.
Agency: NDOT and local agencies
Funding: State-funded
Type: Transportation construction and engineering
Time period: 2007-June 2012
Contract role: Prime/sub
No DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	540	$280,866	$280,866				
(2) MBE/WBE	77	$7,066	$7,066	2.5	9.9	-7.4	25.4
(3) WBE	60	$5,651	$5,651	2.0	1.9	0.2	108.3
(4) MBE	17	$1,415	$1,415	0.5	8.0	-7.5	6.3
(5) African American-owned	2	$111	$115	0.0	0.7	-0.6	6.2
(6) Asian-Pacific American-owned	0	$0	$0	0.0	0.1	-0.1	0.0
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.3	-0.3	0.0
(8) Hispanic American-owned	14	$1,249	$1,300	0.5	3.9	-3.4	11.9
(9) Native American-owned	0	$0	$0	0.0	3.1	-3.1	0.0
(10) Unknown MBE	1	$56					
(11) DBE-certified	22	$1,365	$1,365	0.5			
(12) Woman-owned DBE	13	$852	$852	0.3			
(13) Minority-owned DBE	9	$513	$513	0.2			
(14) African American-owned DBE	2	$111	$111	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	7	$403	$403	0.1			
(18) Native American-owned DBE	0	$0	$0	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-26.
Agency: NDOT and local agencies
Funding: FHWA- and state-funded
Type: Transportation construction and engineering
Time period: 2007-June 2012
Contract role: Prime
With and without DBE contract goals
Region: Nevada

Small contracts

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	193	$15,495	$15,495				
(2) MBE/WBE	23	$2,685	$2,685	17.3	16.8	0.5	103.1
(3) WBE	18	$2,034	$2,034	13.1	6.5	6.6	200+
(4) MBE	5	$651	$651	4.2	10.3	-6.1	40.7
(5) African American-owned	1	$100	$100	0.6	2.4	-1.8	26.6
(6) Asian-Pacific American-owned	0	$0	$0	0.0	0.1	-0.1	0.0
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.0	0.0	100.0
(8) Hispanic American-owned	4	$551	$551	3.6	6.0	-2.5	59.2
(9) Native American-owned	0	$0	$0	0.0	1.8	-1.8	0.0
(10) Unknown MBE	0	$0					
(11) DBE-certified	11	$1,083	$1,083	7.0			
(12) Woman-owned DBE	10	$983	$983	6.3			
(13) Minority-owned DBE	1	$100	$100	0.6			
(14) African American-owned DBE	1	$100	$100	0.6			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	0	$0	$0	0.0			
(18) Native American-owned DBE	0	$0	$0	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-27.
Agency: NDOT and local agencies
Funding: FHWA- and state-funded
Type: Transportation construction and engineering
Time period: 2007-June 2012
Contract role: Prime
With and without DBE contract goals
Region: Nevada

Other contracts

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	568	$1,729,328	$1,729,328				
(2) MBE/WBE	32	$13,668	$13,668	0.8	5.5	-4.7	14.4
(3) WBE	24	$10,485	$10,485	0.6	0.3	0.3	191.3
(4) MBE	8	$3,183	$3,183	0.2	5.2	-5.0	3.6
(5) African American-owned	1	$100	$100	0.0	0.2	-0.2	3.4
(6) Asian-Pacific American-owned	0	$0	$0	0.0	0.0	0.0	0.0
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.0	0.0	100.0
(8) Hispanic American-owned	7	$3,083	$3,083	0.2	1.5	-1.3	11.7
(9) Native American-owned	0	$0	$0	0.0	3.5	-3.5	0.0
(10) Unknown MBE	0	$0					
(11) DBE-certified	13	$1,818	$1,818	0.1			
(12) Woman-owned DBE	10	$983	$983	0.1			
(13) Minority-owned DBE	3	$835	$835	0.0			
(14) African American-owned DBE	1	$100	$100	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	2	$735	$735	0.0			
(18) Native American-owned DBE	0	$0	$0	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-28.
Agency: NDOT
Funding: FHWA- and state-funded
Type: Transportation construction and engineering
Time period: 2007-June 2012
Contract role: Prime/sub
With and without DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	1,721	$2,058,245	$2,058,245				
(2) MBE/WBE	265	$111,314	$111,314	5.4	7.3	-1.9	73.8
(3) WBE	204	$61,739	$61,739	3.0	1.2	1.8	200+
(4) MBE	61	$49,575	$49,575	2.4	6.2	-3.8	39.1
(5) African American-owned	5	$1,653	$1,655	0.1	0.3	-0.2	30.1
(6) Asian-Pacific American-owned	2	$44	$44	0.0	0.0	0.0	7.2
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.8	-0.8	0.0
(8) Hispanic American-owned	49	$47,196	$47,249	2.3	2.3	-0.1	97.8
(9) Native American-owned	4	$627	$627	0.0	2.8	-2.7	1.1
(10) Unknown MBE	1	$56					
(11) DBE-certified	86	$34,582	$34,582	1.7			
(12) Woman-owned DBE	56	$12,562	$12,562	0.6			
(13) Minority-owned DBE	30	$22,021	$22,021	1.1			
(14) African American-owned DBE	5	$1,653	$1,653	0.1			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	22	$19,751	$19,751	1.0			
(18) Native American-owned DBE	3	$617	$617	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-29.
Agency: NDOT
Funding: FHWA-funded
Type: Transportation construction and engineering
Time period: 2007-June 2012
Contract role: Prime/sub
With and without DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	1,194	$1,778,136	$1,778,136				
(2) MBE/WBE	190	$104,276	$104,276	5.9	6.9	-1.1	84.6
(3) WBE	146	$56,116	$56,116	3.2	1.1	2.1	200+
(4) MBE	44	$48,160	$48,160	2.7	5.9	-3.2	46.1
(5) African American-owned	3	$1,542	$1,542	0.1	0.2	-0.1	42.0
(6) Asian-Pacific American-owned	2	$44	$44	0.0	0.0	0.0	9.4
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.8	-0.8	0.0
(8) Hispanic American-owned	35	$45,947	$45,947	2.6	2.1	0.5	122.9
(9) Native American-owned	4	$627	$627	0.0	2.7	-2.7	1.3
(10) Unknown MBE	0	$0					
(11) DBE-certified	65	$33,223	$33,223	1.9			
(12) Woman-owned DBE	44	$11,715	$11,715	0.7			
(13) Minority-owned DBE	21	$21,507	$21,507	1.2			
(14) African American-owned DBE	3	$1,542	$1,542	0.1			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	15	$19,349	$19,349	1.1			
(18) Native American-owned DBE	3	$617	$617	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-30.
Agency: NDOT
Funding: FHWA-funded
Type: Transportation construction and engineering
Time period: 2007-June 2012
Contract role: Prime/sub
DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	266	$273,931	$273,931				
(2) MBE/WBE	62	$22,295	$22,295	8.1	9.8	-1.6	83.5
(3) WBE	50	$16,621	$16,621	6.1	1.8	4.3	200+
(4) MBE	12	$5,675	$5,675	2.1	8.0	-5.9	26.0
(5) African American-owned	3	$1,542	$1,542	0.6	0.3	0.3	200+
(6) Asian-Pacific American-owned	1	$36	$36	0.0	0.0	0.0	42.8
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.9	-0.9	0.0
(8) Hispanic American-owned	6	$3,482	$3,482	1.3	2.2	-0.9	57.5
(9) Native American-owned	2	$615	$615	0.2	4.6	-4.4	4.9
(10) Unknown MBE	0	$0					
(11) DBE-certified	33	$11,422	$11,422	4.2			
(12) Woman-owned DBE	24	$7,488	$7,488	2.7			
(13) Minority-owned DBE	9	$3,935	$3,935	1.4			
(14) African American-owned DBE	3	$1,542	$1,542	0.6			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	4	$1,777	$1,777	0.6			
(18) Native American-owned DBE	2	$615	$615	0.2			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-31.
Agency: NDOT
Funding: FHWA-funded
Type: Transportation construction and engineering
Time period: 2007-June 2012
Contract role: Prime/sub
No DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	928	$1,504,205	$1,504,205				
(2) MBE/WBE	128	$81,981	$81,981	5.5	6.4	-1.0	84.9
(3) WBE	96	$39,495	$39,495	2.6	0.9	1.7	200+
(4) MBE	32	$42,486	$42,486	2.8	5.5	-2.7	51.4
(5) African American-owned	0	$0	$0	0.0	0.2	-0.2	0.0
(6) Asian-Pacific American-owned	1	$9	$9	0.0	0.0	0.0	2.2
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.8	-0.8	0.0
(8) Hispanic American-owned	29	$42,466	$42,466	2.8	2.1	0.7	135.6
(9) Native American-owned	2	$11	$11	0.0	2.4	-2.4	0.0
(10) Unknown MBE	0	$0					
(11) DBE-certified	32	$21,801	$21,801	1.4			
(12) Woman-owned DBE	20	$4,228	$4,228	0.3			
(13) Minority-owned DBE	12	$17,573	$17,573	1.2			
(14) African American-owned DBE	0	$0	$0	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	11	$17,572	$17,572	1.2			
(18) Native American-owned DBE	1	$1	$1	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-32.
Agency: NDOT
Funding: State-funded
Type: Transportation construction and engineering
Time period: 2007-June 2012
Contract role: Prime/sub
No DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	527	$280,108	$280,108				
(2) MBE/WBE	75	$7,038	$7,038	2.5	9.9	-7.4	25.5
(3) WBE	58	$5,623	$5,623	2.0	1.8	0.2	109.5
(4) MBE	17	$1,415	$1,415	0.5	8.0	-7.5	6.3
(5) African American-owned	2	$111	$115	0.0	0.7	-0.6	6.3
(6) Asian-Pacific American-owned	0	$0	$0	0.0	0.1	-0.1	0.0
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.3	-0.3	0.0
(8) Hispanic American-owned	14	$1,249	$1,300	0.5	3.9	-3.4	11.9
(9) Native American-owned	0	$0	$0	0.0	3.1	-3.1	0.0
(10) Unknown MBE	1	$56					
(11) DBE-certified	21	$1,360	$1,360	0.5			
(12) Woman-owned DBE	12	$846	$846	0.3			
(13) Minority-owned DBE	9	$513	$513	0.2			
(14) African American-owned DBE	2	$111	$111	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	7	$403	$403	0.1			
(18) Native American-owned DBE	0	$0	$0	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-33.
Agency: NDOT
Funding: FHWA-funded
Type: Construction
Time period: 2007-June 2012
Contract role: Prime/sub
With and without DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	1,048	$1,653,793	$1,653,793				
(2) MBE/WBE	184	$104,144	$104,144	6.3	6.5	-0.2	96.6
(3) WBE	144	$56,100	$56,100	3.4	1.1	2.3	200+
(4) MBE	40	$48,044	$48,044	2.9	5.4	-2.5	53.7
(5) African American-owned	3	$1,542	$1,542	0.1	0.2	-0.1	44.5
(6) Asian-Pacific American-owned	2	$44	$44	0.0	0.0	0.0	10.9
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.9	-0.9	0.0
(8) Hispanic American-owned	32	$45,833	$45,833	2.8	1.9	0.8	143.0
(9) Native American-owned	3	$625	$625	0.0	2.3	-2.3	1.6
(10) Unknown MBE	0	$0					
(11) DBE-certified	61	$33,109	$33,109	2.0			
(12) Woman-owned DBE	43	$11,700	$11,700	0.7			
(13) Minority-owned DBE	18	$21,409	$21,409	1.3			
(14) African American-owned DBE	3	$1,542	$1,542	0.1			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	13	$19,252	$19,252	1.2			
(18) Native American-owned DBE	2	$615	$615	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-34.
Agency: NDOT
Funding: FHWA-funded
Type: Construction
Time period: 2007-June 2012
Contract role: Prime/sub
DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	266	$273,931	$273,931				
(2) MBE/WBE	62	$22,295	$22,295	8.1	9.8	-1.6	83.5
(3) WBE	50	$16,621	$16,621	6.1	1.8	4.3	200+
(4) MBE	12	$5,675	$5,675	2.1	8.0	-5.9	26.0
(5) African American-owned	3	$1,542	$1,542	0.6	0.3	0.3	200+
(6) Asian-Pacific American-owned	1	$36	$36	0.0	0.0	0.0	42.8
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.9	-0.9	0.0
(8) Hispanic American-owned	6	$3,482	$3,482	1.3	2.2	-0.9	57.5
(9) Native American-owned	2	$615	$615	0.2	4.6	-4.4	4.9
(10) Unknown MBE	0	$0					
(11) DBE-certified	33	$11,422	$11,422	4.2			
(12) Woman-owned DBE	24	$7,488	$7,488	2.7			
(13) Minority-owned DBE	9	$3,935	$3,935	1.4			
(14) African American-owned DBE	3	$1,542	$1,542	0.6			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	4	$1,777	$1,777	0.6			
(18) Native American-owned DBE	2	$615	$615	0.2			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-35.
Agency: NDOT
Funding: FHWA- and state-funded
Type: Construction
Time period: 2007-June 2012
Contract role: Prime/sub
No DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	1,195	$1,621,310	$1,621,310				
(2) MBE/WBE	191	$88,593	$88,593	5.5	6.4	-0.9	85.3
(3) WBE	151	$45,050	$45,050	2.8	1.1	1.7	200+
(4) MBE	40	$43,544	$43,544	2.7	5.3	-2.6	50.7
(5) African American-owned	2	$111	$111	0.0	0.3	-0.3	2.6
(6) Asian-Pacific American-owned	1	$9	$9	0.0	0.0	0.0	1.9
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.8	-0.8	0.0
(8) Hispanic American-owned	35	$43,359	$43,414	2.7	2.1	0.6	127.3
(9) Native American-owned	1	$10	$10	0.0	2.1	-2.1	0.0
(10) Unknown MBE	1	$56					
(11) DBE-certified	44	$22,806	$22,806	1.4			
(12) Woman-owned DBE	31	$5,058	$5,058	0.3			
(13) Minority-owned DBE	13	$17,747	$17,747	1.1			
(14) African American-owned DBE	2	$111	$111	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	11	$17,636	$17,636	1.1			
(18) Native American-owned DBE	0	$0	$0	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-36.
Agency: NDOT
Funding: FHWA- and state-funded
Type: Engineering
Time period: 2007-June 2012
Contract role: Prime/sub
With and without DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	260	$163,003	$163,003				
(2) MBE/WBE	12	$425	$425	0.3	12.5	-12.2	2.1
(3) WBE	3	$69	$69	0.0	0.7	-0.6	6.3
(4) MBE	9	$357	$357	0.2	11.8	-11.6	1.8
(5) African American-owned	0	$0	$0	0.0	0.3	-0.3	0.0
(6) Asian-Pacific American-owned	0	$0	$0	0.0	0.1	-0.1	0.0
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.1	-0.1	0.0
(8) Hispanic American-owned	8	$356	$356	0.2	5.0	-4.8	4.4
(9) Native American-owned	1	$1	$1	0.0	6.4	-6.4	0.0
(10) Unknown MBE	0	$0					
(11) DBE-certified	9	$355	$355	0.2			
(12) Woman-owned DBE	1	$16	$16	0.0			
(13) Minority-owned DBE	8	$339	$339	0.2			
(14) African American-owned DBE	0	$0	$0	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	7	$338	$338	0.2			
(18) Native American-owned DBE	1	$1	$1	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-37.
Agency: NDOT
Funding: FHWA- and state-funded
Type: Construction
Time period: 2007-June 2012
Contract role: Prime
With and without DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	282	$1,455,906	$1,455,906				
(2) MBE/WBE	26	$11,934	$11,934	0.8	4.5	-3.7	18.2
(3) WBE	19	$9,219	$9,219	0.6	0.2	0.4	200+
(4) MBE	7	$2,715	$2,715	0.2	4.3	-4.1	4.3
(5) African American-owned	1	$100	$100	0.0	0.1	-0.1	5.7
(6) Asian-Pacific American-owned	0	$0	$0	0.0	0.0	0.0	0.0
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.0	0.0	100.0
(8) Hispanic American-owned	6	$2,615	$2,615	0.2	1.1	-1.0	15.8
(9) Native American-owned	0	$0	$0	0.0	3.0	-3.0	0.0
(10) Unknown MBE	0	$0					
(11) DBE-certified	10	$1,265	$1,265	0.1			
(12) Woman-owned DBE	8	$898	$898	0.1			
(13) Minority-owned DBE	2	$367	$367	0.0			
(14) African American-owned DBE	1	$100	$100	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	1	$267	$267	0.0			
(18) Native American-owned DBE	0	$0	$0	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-38.
Agency: NDOT
Funding: FHWA- and state-funded
Type: Construction
Time period: 2007-June 2012
Contract role: Prime
With and without DBE contract goals
Region: Nevada

Small contracts

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	80	$10,485	$10,485				
(2) MBE/WBE	19	$2,570	$2,570	24.5	17.0	7.5	144.0
(3) WBE	14	$1,918	$1,918	18.3	7.7	10.6	200+
(4) MBE	5	$651	$651	6.2	9.4	-3.2	66.3
(5) African American-owned	1	$100	$100	1.0	2.8	-1.9	33.7
(6) Asian-Pacific American-owned	0	$0	$0	0.0	0.1	-0.1	0.0
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.0	0.0	100.0
(8) Hispanic American-owned	4	$551	$551	5.3	4.4	0.9	119.4
(9) Native American-owned	0	$0	$0	0.0	2.0	-2.0	0.0
(10) Unknown MBE	0	$0					
(11) DBE-certified	9	$998	$998	9.5			
(12) Woman-owned DBE	8	$898	$898	8.6			
(13) Minority-owned DBE	1	$100	$100	1.0			
(14) African American-owned DBE	1	$100	$100	1.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	0	$0	$0	0.0			
(18) Native American-owned DBE	0	$0	$0	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-39.
Agency: NDOT
Funding: FHWA- and state-funded
Type: Construction
Time period: 2007-June 2012
Contract role: Prime
With and without DBE contract goals
Region: Nevada

Contracts awarded under small contracts program

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	52	$6,174	$6,174				
(2) MBE/WBE	13	$1,569	$1,569	25.4	17.0	8.4	149.8
(3) WBE	9	$1,065	$1,065	17.3	7.8	9.5	200+
(4) MBE	4	$503	$503	8.2	9.2	-1.0	89.0
(5) African American-owned	1	$100	$100	1.6	2.6	-1.0	61.0
(6) Asian-Pacific American-owned	0	$0	$0	0.0	0.2	-0.2	0.0
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.0	0.0	100.0
(8) Hispanic American-owned	3	$404	$404	6.5	4.3	2.2	150.4
(9) Native American-owned	0	$0	$0	0.0	2.0	-2.0	0.0
(10) Unknown MBE	0	$0					
(11) DBE-certified	7	$784	$784	12.7			
(12) Woman-owned DBE	6	$684	$684	11.1			
(13) Minority-owned DBE	1	$100	$100	1.6			
(14) African American-owned DBE	1	$100	$100	1.6			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	0	$0	$0	0.0			
(18) Native American-owned DBE	0	$0	$0	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-40.
Agency: NDOT
Funding: FHWA- and state-funded
Type: Construction
Time period: 2007-June 2012
Contract role: Prime
With and without DBE contract goals
Region: Nevada

Small contracts not awarded under small contracts program

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	29	$4,606	$4,606				
(2) MBE/WBE	6	$1,001	$1,001	21.7	17.0	4.8	128.1
(3) WBE	5	$853	$853	18.5	7.5	11.1	200+
(4) MBE	1	$148	$148	3.2	9.5	-6.3	33.8
(5) African American-owned	0	$0	$0	0.0	3.1	-3.1	0.0
(6) Asian-Pacific American-owned	0	$0	$0	0.0	0.0	0.0	100.0
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.0	0.0	100.0
(8) Hispanic American-owned	1	$148	$148	3.2	4.4	-1.2	73.0
(9) Native American-owned	0	$0	$0	0.0	2.0	-2.0	0.0
(10) Unknown MBE	0	$0					
(11) DBE-certified	2	$214	$214	4.7			
(12) Woman-owned DBE	2	$214	$214	4.7			
(13) Minority-owned DBE	0	$0	$0	0.0			
(14) African American-owned DBE	0	$0	$0	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	0	$0	$0	0.0			
(18) Native American-owned DBE	0	$0	$0	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-41.
Agency: NDOT
Funding: FHWA- and state-funded
Type: Construction
Time period: 2007-June 2012
Contract role: Prime
With and without DBE contract goals
Region: Nevada

Other contracts

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	282	$1,455,906	$1,455,906				
(2) MBE/WBE	26	$11,934	$11,934	0.8	4.5	-3.7	18.2
(3) WBE	19	$9,219	$9,219	0.6	0.2	0.4	200+
(4) MBE	7	$2,715	$2,715	0.2	4.3	-4.1	4.3
(5) African American-owned	1	$100	$100	0.0	0.1	-0.1	5.7
(6) Asian-Pacific American-owned	0	$0	$0	0.0	0.0	0.0	0.0
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.0	0.0	100.0
(8) Hispanic American-owned	6	$2,615	$2,615	0.2	1.1	-1.0	15.8
(9) Native American-owned	0	$0	$0	0.0	3.0	-3.0	0.0
(10) Unknown MBE	0	$0					
(11) DBE-certified	10	$1,265	$1,265	0.1			
(12) Woman-owned DBE	8	$898	$898	0.1			
(13) Minority-owned DBE	2	$367	$367	0.0			
(14) African American-owned DBE	1	$100	$100	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	1	$267	$267	0.0			
(18) Native American-owned DBE	0	$0	$0	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-42.
Agency: NDOT
Funding: FHWA- and state-funded
Type: Engineering
Time period: 2007-June 2012
Contract role: Prime
With and without DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	182	$144,260	$144,260				
(2) MBE/WBE	0	$0	$0	0.0	12.7	-12.7	0.0
(3) WBE	0	$0	$0	0.0	0.5	-0.5	0.0
(4) MBE	0	$0	$0	0.0	12.2	-12.2	0.0
(5) African American-owned	0	$0	$0	0.0	0.3	-0.3	0.0
(6) Asian-Pacific American-owned	0	$0	$0	0.0	0.0	0.0	100.0
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.0	0.0	100.0
(8) Hispanic American-owned	0	$0	$0	0.0	4.7	-4.7	0.0
(9) Native American-owned	0	$0	$0	0.0	7.2	-7.2	0.0
(10) Unknown MBE	0	$0					
(11) DBE-certified	0	$0	$0	0.0			
(12) Woman-owned DBE	0	$0	$0	0.0			
(13) Minority-owned DBE	0	$0	$0	0.0			
(14) African American-owned DBE	0	$0	$0	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	0	$0	$0	0.0			
(18) Native American-owned DBE	0	$0	$0	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-43.
Agency: Local agencies
Funding: FHWA- and state-funded
Type: Transportation construction and engineering
Time period: 2007-June 2012
Contract role: Prime/sub
With and without DBE contract goals
Region: Nevada

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	175	$138,721	$138,721				
(2) MBE/WBE	26	$3,280	$3,280	2.4	8.7	-6.4	27.1
(3) WBE	13	$1,754	$1,754	1.3	1.4	-0.1	92.3
(4) MBE	13	$1,526	$1,526	1.1	7.4	-6.3	14.9
(5) African American-owned	1	$10	$10	0.0	0.7	-0.7	1.1
(6) Asian-Pacific American-owned	0	$0	$0	0.0	0.0	0.0	0.0
(7) Subcontinent Asian American-owned	0	$0	$0	0.0	0.1	-0.1	0.0
(8) Hispanic American-owned	11	$1,499	$1,499	1.1	2.7	-1.6	40.3
(9) Native American-owned	1	$16	$16	0.0	3.9	-3.9	0.3
(10) Unknown MBE	0	$0					
(11) DBE-certified	17	$1,634	$1,634	1.2			
(12) Woman-owned DBE	7	$145	$145	0.1			
(13) Minority-owned DBE	10	$1,488	$1,488	1.1			
(14) African American-owned DBE	1	$10	$10	0.0			
(15) Asian-Pacific American-owned DBE	0	$0	$0	0.0			
(16) Subcontinent Asian American-owned DBE	0	$0	$0	0.0			
(17) Hispanic American-owned DBE	9	$1,478	$1,478	1.1			
(18) Native American-owned DBE	0	$0	$0	0.0			
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0	0.0			
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.

Figure K-44.
Agency: NDOT and local agencies
Funding: FHWA- funded
Type: Transportation construction and engineering
Time period: 2010-June 2012
Contract role: Prime/sub
With and without DBE contract goals
Region: Nevada

Analysis of potential DBEs

Firm Type	(a) Number of contracts (subcontracts) in sample	(b) Dollars in sample (thousands)	(c) Estimated total dollars (thousands)*	(d) Actual utilization (column c / column c, row1) %	(e) Utilization benchmark (availability) %	(f) Difference (column d - column e) %	(g) Disparity index (d / e) x 100
(1) All firms	697	$705,681	$705,681				
(2) MBE/WBE	124	$44,898	$44,898		4.5		
(3) WBE	90	$30,933	$30,933		1.4		
(4) MBE	34	$13,964	$13,964		3.0		
(5) African American-owned	4	$1,553	$1,553		0.3		
(6) Asian-Pacific American-owned	2	$44	$44		0.0		
(7) Subcontinent Asian American-owned	0	$0	$0		0.0		
(8) Hispanic American-owned	24	$11,726	$11,726		2.5		
(9) Native American-owned	4	$642	$642		0.2		
(10) Unknown MBE	0	$0					
(11) DBE-certified	61	$14,078	$14,078				
(12) Woman-owned DBE	38	$8,278	$8,278				
(13) Minority-owned DBE	23	$5,800	$5,800				
(14) African American-owned DBE	4	$1,553	$1,553				
(15) Asian-Pacific American-owned DBE	0	$0	$0				
(16) Subcontinent Asian American-owned DBE	0	$0	$0				
(17) Hispanic American-owned DBE	17	$3,632	$3,632				
(18) Native American-owned DBE	2	$615	$615				
(19) Unknown DBE-MBE	0	$0					
(20) White male-owned DBE	0	$0	$0				
(21) Unknown DBE	0	$0					

Note: Spreadsheet rounds numbers to nearest thousand dollars or tenth of one percent. WBE is white women-owned firms.

* Unknown MBE, Unknown DBE-MBE, and Unknown DBE dollars were allocated to MBE subgroups proportional to the known total dollars of those groups. For example, if total dollars of African American-owned firms (column b, row 5) accounted for 25 percent of total MBE dollars (column b, row 4), then 25 percent of column b, row 10 would be added to column b, row 5 and the sum would be shown in column c, row 5.

Source: Keen Independent study team disparity analysis.