

North Carolina Department of Transportation
DISPARITY STUDY, 2014



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I. Executive Summary

We were retained by the North Carolina Department of Transportation (“NCDOT or Department”) to perform a study of possible disparities in access to its contracting opportunities on the basis of race and gender. NCDOT sought research to focus on the availability and utilization of disadvantaged Minority-Owned Business Enterprises (“MBEs”) and Woman-owned Business Enterprises (“WBEs”) in state-funded contracts and Disadvantaged Business Enterprises (“DBEs”) on federal-aid contracts. It further sought to examine relevant evidence of the effects of race-based or gender-based discrimination upon the utilization of such businesses in the Department’s contracts for planning, design, pre-construction, construction, alternation or maintenance of state transportation systems such as highway and bridges, rail, ferry, airport, facilities and public transit, and in the procurement of materials for these projects.

A. Study Methodology

Our research to address these Study elements addresses the following questions:

- What are the legal standards governing contracting affirmative action programs?
- What are the empirically based geographic and procurement markets in which NCDOT procures the listed goods and services?
- What has been NCDOT’s utilization of M/WBEs as prime contractors and subcontractors compared to White male-owned firms as prime contractors and subcontractors? What has been the racial, ethnic and gender breakdown of that utilization? In what 6-digit North American Industry Classification (“NAICS”) codes do firms operate?
- What is the availability of M/WBEs compared to White male-owned firms in NCDOT’s markets?
- Are there disparities between the availability of M/WBEs and their utilization on the Department’s federally-assisted and non-federal aid contracts? Do any disparities vary based on race, ethnicity or gender, or industry?
- What is the experience of M/WBEs compared to White male-owned firms in NCDOT’s markets throughout the wider economy, where affirmative action or diversity goals are rarely employed? Are there disparities in earnings between minorities and women and similar White males? Are there disparities in the rates at which minorities and women form firms compared to similarly situated White males? Are there disparities in the earnings from firms that do form of minorities and women compared to similarly situated White males?
- What have been the actual experiences of minorities and women in seeking prime contracts and subcontracts in the Department’s markets? What barriers have they encountered, if any, based on race or gender?
- How do NCDOT’s DBE program and M/WBE program operate? How are elements implemented such as annual and contract goal setting; reviews of goal submissions and contract award; contract performance; data collection and monitoring;

payments; closeout procedures; race-neutral measures such as small business elements, etc.?

- What has been the experience of firms in the Department's markets in seeking its work? What has been the effect of the DBE and M/WBE programs and the use of contract goals? What race-neutral or small business measures have been helpful? What program aspects could be improved?
- Based on the Study's results, what remedies are appropriate and legally supportable? What measures could be implemented to enhance the programs?

The methodology for this Study embodies the constitutional principles of *City of Richmond v. Croson* and *Adarand Constructors v. Peña*, as well as best practices for designing race- and gender-conscious contracting programs. Our approach has been specifically upheld by courts. It is also the approach developed by Ms. Holt for the National Academy of Sciences that is now the recommended standard for designing legally defensible disparity studies for state departments of transportation.

In summary, for this Study we determined if there is a disparity between the number of minority- and women-owned business enterprises that are ready, willing, and able to perform work procured by NCDOT, and the utilization of these businesses on Department contracts. We examined whether there are disparities between availability and utilization, both in NCDOT's own contracting and throughout the wider economy. Using approved statistical techniques, we also analyzed large Census Bureau databases that provide information on the rates at which DBEs form business and their earnings from such businesses compared to comparable non-DBEs, to shed light on the effects of capacity variables like age of the firm, size, experience, etc., and to estimate availability "but for" discrimination. We reviewed existing literature on discrimination in access to business and human capital likely to affect opportunities for M/WBEs in NCDOT's markets.

We gathered anecdotal data on DBEs through focus groups with business owners and community leaders, two public hearings and interviews with Department staff. We also evaluated NCDOT's current DBE, M/WBE, Small Business Enterprise and Small Professional Services Firm Programs and race- and gender-neutral policies and procedures for their effectiveness and conformance with national standards for DBE initiatives and the requirements of 49 C.F.R. Part 26 for the Department's DBE program.

Based on the results of these extensive analyses, we make recommendations about whether a constitutional basis exists for continuing DBE contracting efforts for State-funded contracts; possible race- and gender-neutral measures to reduce contracting barriers; compliance with the regulatory dictates of the DBE program and strict scrutiny, including annual and contract goals; the use of contract goals on state-funded contracts; and effective program design and administration, including data collection protocols.

B. Study Findings

Based on this research, we made the following findings.

1. NCDOT's Contracting Affirmative Action Programs

As a recipient of US Department of Transportation ("USDOT") funds, NCDOT is required as a condition of receipt to implement a DBE program in compliance with 49 C.F.R. Part 26.¹ NCDOT's current triennial DBE goal is 14.7 percent. The Department also implements a race- and gender-conscious program for its State-funded construction and professional services contracts, modeled on the federal program. The Department also has a closely monitored joint check procedure to assist a subcontractor to establish or increase a line of credit with a material supplier or assuring timely payment for the supplier's items. One unique feature of the M/WBE program is that contactors are permitted to "bank" dollars spent in excess of the contract goal towards meeting goals on future contracts; this encourages prime firms to exceed the goals where possible.

The Department has many activities designed to support the program and the development of D/M/WBEs. NCDOT works with several agencies and organizations to conduct outreach to encourage potentially eligible firms to become DBE and M/WBE certified and conducts outreach to current and potential DBEs through a variety of avenues.

NCDOT administers the Business Opportunity and Workforce Development (BOWD) Program. This supportive services initiative is a national leader in comprehensive business development efforts to increase the participation and competitiveness of DBEs in the transportation industry. Elements include the DBE Supportive Services Plan that provides business development and technical training; the Business Development Program for DBEs that request intensive business development assistance; and Project Legacy, a business capacity development program that nurtures sustainable companies and assists in implementing strategic operational plans, developing mentor/protégé relationships with prime contractors, and executing an action plan to increase the scale of each participating firm.

In addition to the DBE and M/WBE programs, NCDOT has two race- and gender-neutral programs.

- The Small Business Enterprise ("SBE") program sets aside some contracts worth less than \$500,000 for bidding only by certified SBEs, and waives or relaxes the requirement for a general contractor's license, surety bonding and prime contractor qualification. To be eligible, the firm's annual net income cannot exceed \$1.5 million; it must be independent; it must have integrity; and must be an existing for-profit business.
- The Small Professional Services Firm ("SPSF") program was developed to provide consultant opportunities for small firms for contracts with a fee less than \$250,000. To be eligible, the firm must be a "small business concern" as defined by the US Small Business Administration standards, 13 C.F.R. Part 121 averaged over three

¹ 49 C.F.R. §§ 26.3 and 26.21.

years; it must be independent; it must have integrity; and must be an existing for-profit business. A firm certified as a DBE, MBE or WBE automatically qualifies as a SPSF. There are no contract goals for SPSFs. Prime consultants are encouraged to use SPSFs but there is no requirement to make specific good faith efforts to do so.

To evaluate the operations of these programs and whether they are narrowly tailored, we interviewed many firm owners and representatives, as well as NCDOT staff members. We solicited input about their experiences and suggestions for changes or improvements. Topics included:

- Access to information about NCDOT's contract opportunities: most users agreed the recent website improvement assisted them to obtain needed information.
- Contract size and specifications: identified barriers were the preference for preexisting teams; the requirement that the firm rather than the team members have the minimum experience; and the size of the contracts;
- Access to bonding: DBEs' inability to bond is a major impediment to their use as subcontractors and development as prime contractors.
- Payment: managing cash flow was an issue for small firms.
- Networking, outreach and supportive services: more outreach was requested, especially for professional services firms. Training on how to do business with NCDOT and comply with the programs' requirements was suggested. Some general contractors recommended that DBEs be required to go through an additional prequalification process to become certified. The current supportive services programs were highly praised.
- SPSF program: the lack of goals was identified as a major weakness. Setting aside contracts as in the SBE program was recommended.
- SBE program: This approach was praised as one method to increase opportunities for small firms.
- Mentor-protégé program: Both DBEs and large firms were open to the idea, so long as there are incentives for the general contractor to participate.
- Certification standards and processes: Most minorities and women found the certification process to be rigorous, but fair and necessary to maintain program integrity. A few White males reported that they had tried to move their wives into the position of president and majority owner but were unable to get the firm certified or had to appeal a denial because of a double standard applied to White women, and some participants felt it was unfair that they have to prove they are disadvantaged on an individual basis but Blacks and Hispanics are presumed to suffer race discrimination.
- Program Advisory Committee: A NCDOT committee to serve as a forum for DBE issues was welcomed by DBEs, non-DBEs, and agency staff.
- Meeting goals at contract award: Experiences with meeting goals was very mixed. While not always easy, many larger general contractors reported they are able to meet the goals most of the time. Others stated there is often a lack of firms that can perform and goals were often unrealistic. Meeting separate goals for MBEs and for WBEs was especially challenging. The exclusion of Native-American owned firms from the program for state-funded contracts adversely affected prime contractors'

ability to meet the MBE goals. They also reported that it is extremely burdensome to make good faith efforts to meet goals. Many prime contractors asserted that it is more expensive and risky to use DBEs. Some general contractors believe that most DBEs are not interested in doing work on DOT contracts. A lack of skills, capital and drive, as well as a lack of business savvy, were seen by some general contractors as the major barriers to DBEs' success. Many non-DBEs stated that they were indifferent to race or gender; quality was their only concern, and they rejected DBEs' contention that they are only used when there is a goal.

- Contract performance monitoring and enforcement: More monitoring of contractual commitments as recommended by several DBEs. While it is permitted to substitute a non-performing DBE after contract award, several primes reported that they rarely seek approval.

2. NCDOT's Industry and Geographic Markets

Seventeen North American Industry Classification System ("NAICS") codes defined the product market for the agency. Two codes – Highway, Street, and Bridge Construction (237310) and Other Heavy and Civil Engineering Construction (237990) – account for almost 83 percent of the Department's spending. Table A presents the distribution of the number of contracts and the amount of contract dollars across the 17 NAICS codes. Throughout the analysis we examined the distribution of contracts and spending by all funding sources, federal-funded contracts, and state-funded contracts. A list of the descriptions of the codes is provided in Appendix G.

Table A: NAICS Code Distribution of Contracts and Contract Dollars, All Funding Sources

NAICS Code	Subsector	Share of Total Contracts	Share of Total Contract Dollars
237110	Water and Sewer Line & Related Structures Construction	2.5%	2.2%
237310	Highway, Street & Bridge Construction	38.5%	45.1%
237990	Other Heavy & Civil Engineering Construction	0.8%	37.8%
238110	Poured Concrete Foundation & Structure Contractors	3.1%	0.6%
238120	Structural Steel & Precast Concrete Contractors	0.9%	0.4%
238210	Electrical Contractors & Other Wiring Installation Contractors	4.4%	1.0%
238910	Site Preparation Contractors	1.8%	1.1%
238990	All Other Specialty Trade Contractors	6.5%	1.0%
327320	Ready-Mix Concrete Manufacturing	2.2%	0.8%
327390	Other Concrete Product Manufacturing	1.6%	0.2%
423830	Industrial Machinery and Equipment Merchant Wholesalers	0.7%	1.2%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	5.6%	0.2%
484110	General Freight Trucking, Local	5.4%	0.9%
484220	Specialized Freight (except Used Goods) Trucking, Local	12.4%	2.0%
518210	Data Processing, Hosting, and Related Services	0.0%	1.0%
541330	Engineering Services	4.6%	3.6%
561730	Landscaping Services	8.9%	0.8%
Total		100.0%	100.0%

Eighty-nine percent of the Department’s dollars were spent in the State of North Carolina. Therefore, we used North Carolina as NCDOT’s geographic market. Table B presents those North Carolina counties that account for 75 percent of the total spend.

Table B: Geographic Percentage Distribution of Contracts, All Funding Sources

COUNTY	COUNTY PCT	PCT TOTAL
Wake County	38.4%	38.4%
Mecklenburg County	10.6%	49.1%
Edgecombe County	7.8%	56.8%
Wilson County	5.7%	62.5%
Guilford County	5.3%	67.8%
Catawba County	2.5%	70.3%
Buncombe County	1.9%	72.2%
Surry County	1.8%	74.0%
Forsyth County	1.7%	75.7%

3. NCDOT’s Utilization of Minority- and Women-Owned Firms

The next essential step was to determine the dollar value of the Department’s utilization of M/WBEs in its geographic and product market areas, as measured by payments to prime firms and associated subcontractors and disaggregated by race and gender. Because the Department and its subrecipients of federal funds lacked full records for payments to prime contractors and subcontractors other than firms certified as DBEs or M/WBEs, we contacted the prime vendors to request that they describe in detail their contract and subcontracts, including race, gender and dollar amount paid to date.

We further developed a Master M/WBE Directory based upon lists solicited from dozens of agencies. We used the results of this extensive contract data collection process to assign minority or female status to the ownership of each firm in the analysis. One finding is that utilization of M/WBEs is highly concentrated by subsector, with a few subsectors accounting for the large majority of utilization; several subsectors were without any M/WBE participation. Table C presents data on the distribution of contract dollars by NAICS code for MBEs, M/WBEs, and non-M/WBEs.

Table C: Distribution of Contract Dollars, All Funding Sources

NAICS	MBE	M/WBE	Non-M/WBE	Total
237110	1.0%	3.0%	97.0%	100.0%
237310	2.2%	6.0%	94.0%	100.0%
237990	0.0%	0.0%	100.0%	100.0%
238110	5.5%	56.1%	43.9%	100.0%
238120	0.9%	95.4%	4.6%	100.0%
238210	0.0%	2.5%	97.5%	100.0%
238910	2.1%	3.3%	96.7%	100.0%
238990	0.5%	20.7%	79.3%	100.0%
327320	0.0%	0.0%	100.0%	100.0%
327390	0.0%	0.0%	100.0%	100.0%
423830	0.0%	0.0%	100.0%	100.0%
423860	0.0%	100.0%	0.0%	100.0%
484110	40.2%	99.3%	0.7%	100.0%
484220	37.4%	82.6%	17.4%	100.0%
518210	0.0%	0.0%	100.0%	100.0%
541330	1.9%	8.9%	91.1%	100.0%
561730	21.3%	82.5%	17.5%	100.0%
Total	2.4%	7.5%	92.5%	100.0%

4. Availability of Minority- and Women-Owned Firms in NCDOT's Market

Using the “custom census” approach to estimating availability and the further assignment of race and gender using the Master Directory, we found the aggregated availability of minority- and women-owned firms to be 17.27 percent for federal-aid contracts and 16.40 percent for State-funded contracts. Table D presents the weighted availability data for various racial and gender categories by funding source.

Table D: Aggregated Weighted Availability

Funding Source	Black	Hispanic	Asian	Native American	White Women	MBE	M/WBE	Non-M/WBE
FEDERAL	4.48%	1.82%	0.62%	1.08%	9.27%	8.00%	17.27%	81.97%
STATE	5.63%	2.46%	0.23%	1.33%	6.75%	9.65%	16.40%	82.83%

5. Disparity Analysis of NCDOT’s Utilization of Minority- and Women-Owned Firms

Congress has previously determined that there is a strong basis in evidence for the use of race- and gender-conscious measures to remedy disparities in DBE utilization on federal-aid contracts. We therefore limited our examination of disparities in NCDOT’s use of M/WBEs to its State-funded contracts to meet its constitutional obligation to establish independently its compelling interest in remedying discrimination in its market.

To do this, we compared the utilization of M/WBEs with the availability of M/WBEs. This is known as the “disparity ratio” or “disparity index.” A disparity ratio measures the participation of a group in the government’s contracting opportunities by dividing that group’s utilization by the availability of that group, and multiplying that result by 100%. Courts have looked to disparity indices in determining whether strict scrutiny is satisfied. An index less than 100 percent indicates that a given group is being utilized less than would be expected based on its availability, and courts have adopted the Equal Employment Opportunity Commission’s “80 percent” rule that a ratio less than 80 percent presents a *prima facie* case of discrimination, referred to as “substantive” significance.²

We determined that the disparity ratios in the Department’s State-funded contracts were substantively significant for all groups, and statistically significant for MBEs as a group, for M/WBEs as a group, and for non-M/WBEs.³ This was true even with the use of narrowly tailored contract goals on State jobs. These results support the inference that barriers based on race and gender continue to impede opportunities on State projects for each racial and ethnic minority group, for White women, for minorities as a whole and for M/WBEs as a whole. Table E presents the results of this disparity analysis by demographic group for state-funded contracts.

² 29 C.F.R. § 1607.4(D) (“A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact.”).

³ For a discussion of the meaning of statistical significance and its role in the Study’s analysis, see Appendix D.

Table E: Disparity Ratios by Demographic Group for State-Funded Contracts

Demographic Group	Disparity Ratio
Black	49.94%
Hispanic	18.25%
Asian	9.98%
Native American	61.41%
White Women	79.87%
MBE	42.50%*
M/WBE	57.88%**

* indicates statistical significance at the 0.05 level

** indicates statistical significance at the 0.01 level

6. Analysis of Race and Gender Disparities in the North Carolina Economy

We explored the data and literature relevant to how discrimination in NCDOT's market and throughout the wider economy affects the ability of minorities and women to fairly and fully engage in the Department's' contract opportunities. First, we analyzed the rates at which M/WBEs in North Carolina form firms and their earnings from those firms. Next, we summarize the literature on barriers to equal access to commercial credit. Finally, we summarize the literature on barriers to equal access to human capital. All three types of evidence have been found by the courts to be relevant and probative of whether a government will be a passive participant in discrimination without some type of affirmative interventions.

Data from the Census Bureau's Survey of Business Owners indicate very large disparities between M/WBE firms and non-M/WBE firms when examining the sales of all firms, the sales of employer firms (firms that employ at least one worker), or the payroll of employer firms.

Using these techniques and data from the Census Bureau's American Community Survey ("ACS"), we found that Blacks, Hispanics, Native Americans, Asian/Pacific Islanders, Others, and White women were underutilized relative to White men: controlling for other factors relevant to business success, wages and business earnings were lower for these groups compared to White men. Data from the ACS further indicate that non-Whites and White women are less likely to form businesses compared to similarly situated White men.

The literature on barriers to access to commercial credit and the development of human capital further reports that minorities continue to face constraints on their entrepreneurial success based on race. These constraints negatively impact the ability of firms to form, to grow and to succeed, including in the construction industry.

Taken together with other evidence, this is the type of proof that supports the ability of NCDOT to continue to employ narrowly tailored race- and gender-conscious measures to ensure equal opportunities to access its contracts and associated subcontracts.

7. Qualitative Evidence of Race and Gender Disparities in the North Carolina Economy

In addition to quantitative data, the courts look to anecdotal evidence of firms' marketplace experiences to evaluate whether the effects of current or past discrimination continue to impede opportunities for M/WBEs. To collect this evidence, we conducted several focus groups with minority and women owners to explore their experiences in attempting to do work on NCDOT contracts as prime firms and subcontractors, as well as throughout the wider economy. Most reported that while progress has been made in reducing barriers on the basis of race and gender, inequities remain significant obstacles to full and fair opportunities. Participants discussed the following topics:

- Negative attitudes and perceptions of competency: stereotypes about the abilities of M/WBEs continue to plague minority and women business owners, particularly in the construction industry. Owners reported they were sometimes subjected to racist or sexist comments.
- Exclusion from industry and information networks: It can difficult for DBEs to access important decision makers. Women in particular reported that the "good ole boy" network remains a barrier to their opportunities.
- Obtaining public sector work on an equal basis: most M/WBEs reported that affirmative action goals remain necessary to ensure equal opportunities. Native Americans experienced serious and immediate reductions in work after this group was eliminated from the state program; in contrast, their utilization on federally-funded jobs remained steady.
- Obtaining private sector or "no goals" work on an equal access: most firms did not receive significant private work, with the exception of a few highly specialized niche businesses.

C. Recommendations

Based on these findings, as well as our review of the Department's DBE, M/WBE, SBE and SPSF programs, we make the following recommendations.

Augment current race and gender-neutral measures:

- Increase vendor communication and outreach to small firms.
- Increase contract "unbundling".
- Review surety bonding, experience requirements and bidding procedures.
- Adopt "quick pay" policies.

- Ensure bidder non-discrimination and fairly priced subcontractor quotations.
- Continue and enhance supportive services and business development programs.
- Provide training to bidders regarding program compliance.
- Expand the Small Business Program to encourage D/M/WBE prime contracting by raising the size limit for contracts and including multi-scope jobs.
- Expand the Small Professional Services Firm Program to include a target market for prime consulting opportunities.
- Implement a bonding and financing program for SBEs.
- Consider adopting a Mentor-Protégé Program.
- Appoint an Industry Committee for the Programs.
- Implement an electronic contracting data collection and monitoring system.
- Increase oversight of subrecipient agencies.

Continue current race and gender-neutral conscious elements:

- Reauthorize the M/WBE program for State-funded contracts and include all minority groups and White women as eligible for certification and credit towards meeting contract goals.
- Use the Study to set the overall annual DBE goal and M/WBE goals.
- Use the Study to set DBE goals and M/WBE contract goals.

The Department should develop performance measures for Program success such as the number of good faith efforts waiver request, the rate of substitutions of subcontractors, growth in the number, size and scopes of work of certified firms, etc. Further, regular program reviews should continue, including a sunset date for the State program.

II. Legal Standards for Contracting Affirmative Action Programs

A. Introduction

The North Carolina Department of Transportation (“NCDOT” or “the Department”) has implemented measures to include minority-owned and women-owned and disadvantaged business enterprises in its contracting activities. The Department applies the Disadvantaged Business Enterprise (“DBE”) requirements of 49 C.F.R. Part 26 to its federally assisted contracts. It also has established a Minority- and Women-Owned Business Enterprise (“M/WBE”) Program for its state-funded contracts, as well as a race-neutral Small Business Enterprise (“SBE”) program. It also applies a race-neutral Small Professional Services Firm (“SPSF”) program to design contracts.

The courts have held that Congress has established its compelling interest in remedying discrimination in the market for federally-assisted contracts through consideration of strong evidence of continuing marketplace barriers, and that the regulations of the Disadvantaged Business Enterprise (“DBE”) program are narrowly tailored to that evidence. As a recipient of federal funds, NCDOT is required to meet the constitutional and regulatory mandates of Part 26 by narrowly tailoring its DBE Program to the availability of minority- and women-owned firms in its marketplace. To continue to implement a race- and gender-based program on its state-funded contracts that is effective, enforceable and legally defensible, NCDOT must meet the judicial test of constitutional “strict scrutiny” to determine the legality of its M/WBE Program. Strict scrutiny requires “strong evidence” of the persistence of discrimination, and “narrowly tailored” measures to remedy that discrimination.

B. Summary of Constitutional Standards

To be effective, enforceable, and legally defensible, a race-based program for public contracts must meet the judicial test of constitutional “strict scrutiny.” Strict scrutiny is the highest level of judicial review and consists of two elements:

- The government must establish its “compelling interest” in remedying race discrimination by current “strong evidence” of the persistence of discrimination. Such evidence may consist of the entity’s “passive participation” in a system of racial exclusion.
- Any remedies adopted must be “narrowly tailored” to that discrimination, that is, the program must be directed at the types and depth of discrimination identified.⁴

The compelling interest prong has been met through two types of proof:

- Statistical evidence of the underutilization of minority firms by the agency and/or throughout the agency’s geographic and industry market area compared to their availability in the market area. These are as disparity

⁴ *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469 (1989).

indices, comparable to the type of “disparate impact” analysis used in employment discrimination cases.

- Anecdotal evidence of race-based barriers to the full and fair participation of minority firms in the market area and in seeking contracts with the agency, comparable to the “disparate treatment” analysis used in employment discrimination cases.⁵ Anecdotal data can consist of interviews, surveys, public hearings, academic literature, judicial decisions, legislative reports, etc.

The narrow tailoring requirement has been met through the satisfaction of five factors to ensure that the remedy “fits” the evidence:

- The efficacy of race-neutral remedies at overcoming identified discrimination.
- The relationship of numerical benchmarks for government spending to the availability of minority- and women-owned firms and to subcontracting goal setting procedures.
- The congruence between the remedies adopted and the beneficiaries of those remedies.
- Any adverse impact of the relief on third parties.
- The duration of the program.⁶

In *Adarand v. Peña*,⁷ the Supreme Court extended the analysis of strict scrutiny to race-based federal enactments such as the Disadvantaged Business Enterprise (“DBE”) program for federally-assisted transportation contracts. Just as in the local government context, the national government must have a compelling interest for the use of race and the remedies adopted must be narrowly tailored to the evidence relied upon.

In general, courts have subjected preferences for Women-Owned Business Enterprises (“WBEs”) to “intermediate scrutiny,” including the Fourth Circuit Court of Appeals that governs North Carolina.⁸ Gender-based classifications must be supported by an “exceedingly persuasive justification” and be “substantially related” to the objective.⁹ However, appellate courts have applied strict scrutiny to the gender-based presumption of social disadvantage in reviewing the constitutionality of the DBE program.¹⁰ Therefore, we advise that the Department evaluate gender-based remedies under the strict scrutiny standard.

⁵ *Id.* at 509.

⁶ *United States v. Paradise*, 480 U.S. 149, 171 (1987).

⁷ *Adarand v. Peña*, 515 U.S. 200 (1995).

⁸ *H.B. Rowe Co. v. Tippett*, 615 F.3d 233, 242 (4th Cir. 2010).

⁹ *Cf. United States v. Virginia*, 518 U.S. 515 (1996).

¹⁰ *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715, 720 (7th Cir. 2007) (“Northern Contracting III”).

Classifications not based on race, ethnicity, religion, national origin or gender (e.g., disability, veteran status, location or size) are subject to the lesser standard of review of “rational basis” scrutiny, because the courts have held there are no equal protection implications under the Fourteenth Amendment for groups not subject to systemic discrimination.¹¹ In contrast to strict scrutiny of government action directed towards persons of “suspect classifications” such as racial and ethnic minorities, rational basis means the governmental action must only be “rationally related” to a “legitimate” government interest. Thus, preferences for persons with disabilities, veterans, etc. may be enacted with vastly less evidence than race- or gender-based measures to combat historic discrimination.

Unlike most legal challenges, the defendant has the initial burden of producing “strong evidence” in support of a race-conscious program.¹² The plaintiff must then proffer evidence to rebut the government’s case, and bears the ultimate burden of production and persuasion that the affirmative action program is unconstitutional.¹³ “[W]hen the proponent of an affirmative action plan produces sufficient evidence to support an inference of discrimination, the plaintiff must rebut that inference in order to prevail.”¹⁴ A plaintiff “cannot meet its burden of proof through conjecture and unsupported criticism of [the government’s] evidence.”¹⁵ For example, in the challenge to the Minnesota and Nebraska DBE programs, “plaintiffs presented evidence that the data was susceptible to multiple interpretations, but they failed to present affirmative evidence that no remedial action was necessary because minority-owned small businesses enjoy non-discriminatory access to and participation in highway contracts. Thus, they failed to meet their ultimate burden to prove that the DBE program is unconstitutional on this ground.”¹⁶ When the statistical information is sufficient to support the inference of discrimination, the plaintiff must prove that the statistics are flawed.¹⁷ A plaintiff cannot rest upon general criticisms of studies or other evidence; it must carry the case that the

¹¹ *United States v. Carolene Products Co.*, 304 U.S. 144 (1938).

¹² *Aiken v. City of Memphis*, 37 F.3d 1155, 1162 (6th Cir. 1994).

¹³ *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147, 1166 (10th Cir. 2000), *cert. granted then dismissed as improvidently granted*, 532 U.S. 941 (2001) (“*Adarand VII*”); *W.H. Scott Construction Co., Inc. v. City of Jackson, Mississippi*, 199 F.3d 206, 219 (5th Cir. 1999).

¹⁴ *Engineering Contractors Association of South Florida, Inc. v. Metropolitan Dade County*, 122 F.3d 895, 916 (11th Cir. 1997).

¹⁵ *Concrete Works of Colorado, Inc. v. City and County of Denver*, 321 F.3d 950, 989, *cert. denied*, 540 U.S. 1027 (2003) (10th Cir. 2003) (“*Concrete Works III*”).

¹⁶ *Sherbrooke Turf, Inc. v. Minnesota Department of Transportation*, 345 F.3d. 964, 970 (8th Cir. 2003), *cert. denied*, 541 U.S. 1041 (2004).

¹⁷ *Engineering Contractors*, 122 F.3d at 916; *Coral Construction Co. v. King County*, 941 F.2d. 910 921 (9th Cir. 1991).

government's proof is inadequate to meet strict scrutiny, rendering the legislation or governmental program illegal.¹⁸

There is no need of formal legislative findings of discrimination,¹⁹ nor "an ultimate judicial finding of discrimination before [a local government] can take affirmative steps to eradicate discrimination."²⁰

To meet strict scrutiny, studies have been conducted that gather the statistical and anecdotal evidence necessary to support the use of race- and gender-conscious measures to combat discrimination. These are commonly referred to as "disparity studies" because they analyze any disparities between the opportunities and experiences of minority- and women-owned firms and their actual utilization compared to white male-owned businesses. Quality studies also examine the elements of the agency's programs to determine whether they are sufficiently narrowly tailored. The following is a detailed discussion of the parameters for conducting studies leading to defensible programs that can establish NCDOT's compelling interest in remedying discrimination in its market for locally-funded contracts and developing narrowly tailored initiatives for its DBE and M/WBE programs.

C. General Overview of Strict Scrutiny

1. City of Richmond v. J.A. Croson Co.

The U.S. Supreme Court in *City of Richmond v. J.A. Croson Co.* established the constitutional contours of permissible race-based public contracting programs. Reversing long established law, the Court for the first time extended the highest level of judicial examination from measures designed to limit the rights and opportunities of minorities to legislation that benefits these historic victims of discrimination. Strict scrutiny requires that a government entity prove both its "compelling interest" in remedying identified discrimination based upon "strong evidence," and that the measures adopted to remedy that discrimination are "narrowly tailored" to that evidence. However benign the government's motive, race is always so suspect a classification that its use must pass the highest constitutional test of "strict scrutiny."

The Court struck down the City of Richmond's Minority Business Enterprise Plan that required prime contractors awarded City construction contracts to subcontract at least 30 percent of the project to Minority-Owned Business Enterprises ("MBEs"). A business located anywhere in the country that was at least 51 percent owned and controlled by "Black, Spanish-speaking, Oriental, Indian, Eskimo, or Aleut" citizens was eligible to participate. The Plan was adopted after a public hearing at which no

¹⁸ *Adarand VII*, 228 F.3d at 1166; *Engineering Contractors II*, 122 F.3d at 916; *Concrete Works II*, 36 F.3d at 1522-1523; see also *Wygant v. Jackson Board of Education*, 476 U.S. 267, 277-278 (1986).

¹⁹ *Webster v. Fulton County, Georgia*, 51 F.Supp.2d 1354, 1364 (N.D. Ga. 1999).

²⁰ *Concrete Works III*, 36 F.3d at 1522.

direct evidence was presented that the City had discriminated on the basis of race in awarding contracts or that its prime contractors had discriminated against minority subcontractors. The only evidence before the City Council was: (a) Richmond's population was 50 percent Black, yet less than one percent of its prime construction contracts had been awarded to minority businesses; (b) local contractors' associations were virtually all White; (c) the City Attorney's opinion that the Plan was constitutional; and (d) general statements describing widespread racial discrimination in the local, Virginia, and national construction industries.

In affirming the court of appeals' determination that the Plan was unconstitutional, Justice Sandra Day O'Connor's plurality opinion rejected the extreme positions that local governments either have *carte blanche* to enact race-based legislation or must prove their own illegal conduct:

[A] state or local subdivision...has the authority to eradicate the effects of private discrimination within its own legislative jurisdiction.... [Richmond] can use its spending powers to remedy private discrimination, if it identifies that discrimination with the particularity required by the Fourteenth Amendment... [I]f the City could show that it had essentially become a "passive participant" in a system of racial exclusion...[it] could take affirmative steps to dismantle such a system.²¹

Strict scrutiny of race-based remedies is required to determine whether racial classifications are in fact motivated by either notions of racial inferiority or blatant racial politics. This highest level of judicial review "smokes out" illegitimate uses of race by assuring that the legislative body is pursuing a goal important enough to warrant use of a highly suspect tool.²² It further ensures that the means chosen "fit" this compelling goal so closely that there is little or no possibility that the motive for the classification was illegitimate racial prejudice or stereotype. The Court made clear that strict scrutiny seeks to expose racial stigma; racial classifications are said to create racial hostility if they are based on notions of racial inferiority.²³

Race is so suspect a basis for government action that more than "societal" discrimination is required to restrain racial stereotyping or pandering. The Court provided no definition of "societal" discrimination or any guidance about how to recognize the ongoing realities of history and culture in evaluating race-conscious programs. The Court simply asserted that:

[w]hile there is no doubt that the sorry history of both private and public discrimination in this country has contributed to a lack of opportunities for

²¹ 488 U.S. at 491-92.

²² See also *Grutter v. Bollinger*, 539 U.S. 306, 327 (2003) ("Not every decision influenced by race is equally objectionable, and strict scrutiny is designed to provide a framework for carefully examining the importance and the sincerity of the reasons advanced by the governmental decision maker for the use of race in that particular context.").

²³ 488 U.S. at 493.

black entrepreneurs, this observation, standing alone, cannot justify a rigid racial quota in the awarding of public contracts in Richmond, Virginia.... [A]n amorphous claim that there has been past discrimination in a particular industry cannot justify the use of an unyielding racial quota. It is sheer speculation how many minority firms there would be in Richmond absent past societal discrimination.²⁴

Richmond's evidence was found to be lacking in every respect. The City could not rely upon the disparity between its utilization of MBE prime contractors and Richmond's minority population because not all minority persons would be qualified to perform construction projects; general population representation is irrelevant. No data were presented about the availability of MBEs in either the relevant market area or their utilization as subcontractors on City projects. According to Justice O'Connor, the extremely low MBE membership in local contractors' associations could be explained by "societal" discrimination or perhaps Blacks' lack of interest in participating as business owners in the construction industry. To be relevant, the City would have to demonstrate statistical disparities between eligible MBEs and actual membership in trade or professional groups. Further, Richmond presented no evidence concerning enforcement of its own anti-discrimination ordinance. Finally, Richmond could not rely upon Congress' determination that there has been nationwide discrimination in the construction industry. Congress recognized that the scope of the problem varies from market to market, and in any event it was exercising its powers under Section Five of the Fourteenth Amendment, whereas a local government is further constrained by the Amendment's Equal Protection Clause.²⁵

In the case at hand, the City has not ascertained how many minority enterprises are present in the local construction market nor the level of their participation in City construction projects. The City points to no evidence that qualified minority contractors have been passed over for City contracts or subcontracts, either as a group or in any individual case. Under such circumstances, it is simply impossible to say that the City has demonstrated "a strong basis in evidence for its conclusion that remedial action was necessary."²⁶

The foregoing analysis was applied only to Blacks. The Court then emphasized that there was "absolutely no evidence" against other minorities. "The random inclusion of racial groups that, as a practical matter, may have never suffered from discrimination in the construction industry in Richmond, suggests that perhaps the City's purpose was not in fact to remedy past discrimination."²⁷

²⁴ *Id.* at 499.

²⁵ 488 U.S. at 504.

²⁶ *Id.* at 510.

²⁷ *Id.*

Having found that Richmond had not presented evidence in support of its compelling interest in remedying discrimination—the first prong of strict scrutiny—the Court went on to make two observations about the narrowness of the remedy—the second prong of strict scrutiny. First, Richmond had not considered race-neutral means to increase MBE participation. Second, the 30 percent quota had no basis in evidence, and was applied regardless of whether the individual MBE had suffered discrimination.²⁸ Further, Justice O'Connor rejected the argument that individualized consideration of Plan eligibility is too administratively burdensome.

Apparently recognizing that the opinion might be misconstrued to categorically eliminate all race-conscious contracting efforts, Justice O'Connor closed with these admonitions:

Nothing we say today precludes a state or local entity from taking action to rectify the effects of identified discrimination within its jurisdiction. If the City of Richmond 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. Where 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. Under such circumstances, the City could act to dismantle the closed business system by taking appropriate measures against those who discriminate based on race or other illegitimate criteria. In the extreme case, some form of narrowly tailored racial preference might be necessary to break down patterns of deliberate exclusion.... Moreover, 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.²⁹

The Fourth Circuit Court of Appeals reiterated this point in the challenge to NCDOT's M/WBE program, itself drawn from Justice O'Connor's opinion.

Although imposing a substantial burden, strict scrutiny is not automatically "fatal in fact." [Citation omitted] After all, "[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." [Citations omitted] In so acting, a governmental entity must demonstrate it had a compelling

²⁸ See *Grutter*, 529 U.S. at 336-337 (quotas are not permitted; race must be used in a flexible, non-mechanical way).

²⁹ 488 U.S. at 509 (citations omitted).

interest in “remedying the effects of past or present racial discrimination.”³⁰

While much has been written about *Croson*, it is worth stressing what evidence was and was not before the Court. First, Richmond presented *no* evidence regarding the availability of MBEs to perform as prime contractors or subcontractors and *no* evidence of the utilization of minority-owned subcontractors on City contracts.³¹ Nor did Richmond attempt to link the remedy it imposed to any evidence specific to the Program; it used the general population of the City rather than any measure of business availability.

Some commentators have taken this dearth of any particularized proof and argued that only the most particularized proof can suffice in all cases. They leap from the Court’s rejection of Richmond’s reliance on only the percentage of Blacks in the City’s population to a requirement that only firms that bid or have the “capacity” or “willingness” to bid on a particular contract at a particular time can be considered in determining whether discrimination against Black businesses infects the local economy.³²

This contention has been rejected explicitly by some courts. For example, in denying the plaintiff’s summary judgment motion to enjoin the City of New York’s M/WBE construction ordinance, the court stated that:

[I]t is important to remember what the *Croson* plurality opinion did and did not decide. The Richmond program, which the *Croson* Court struck down, was insufficient because it was based on a comparison of the minority population in its entirety in Richmond, Virginia (50%) with the number of contracts awarded to minority businesses (.67%). There were no statistics presented regarding number of minority-owned contractors in the Richmond area, *Croson*, 488 U.S. at 499, and the Supreme Court was concerned with the gross generality of the statistics used in justifying the Richmond program. There is no indication that the statistical analysis performed by [the consultant] in the present case, which does contain statistics regarding minority contractors in New York City, is not sufficient as a matter of law under *Croson*.³³

³⁰ *Rowe*, 615 F.3d at 24.

³¹ 488 U.S. at 502.

³² *See, e.g., Northern Contracting III*, 473 F.3d at 723.

³³ *North Shore Concrete and Associates, Inc. v. City of New York*, 1998 U.S. Dist. Lexis 6785, *28-29 (E.D. N.Y. 1998); *see also Harrison & Burrowes Bridge Constructors, Inc. v. Cuomo*, 981 F.2d 50, 61-62 (2nd Cir. 1992) (“*Croson* made only broad pronouncements concerning the findings necessary to support a state’s affirmative action plan”); *cf. Concrete Works, Inc. v. City and County of Denver (“Concrete Works II”)*, 36 F.3d 1513, 1528 (10th Cir. 1994) (City may rely on “data reflecting the number of MBEs and WBEs in the marketplace to defeat the challenger’s summary judgment motion”).

Further, Richmond made no attempt to narrowly tailor a goal for the procurement at issue that reflected the reality of the project. Arbitrary quotas, and the unyielding application of those quotas, did not support the stated objective of ensuring equal access to City contracting opportunities. The *Croson* Court said nothing about the constitutionality of flexible subcontracting goals based upon the availability of MBEs to perform the scopes of the contract in the government's local market area. In contrast, the USDOT DBE Program avoids these pitfalls. 49 CFR Part 26 "provides for a flexible system of contracting goals that contrasts sharply with the rigid quotas invalidated in *Croson*."³⁴

While strict scrutiny is designed to require clear articulation of the evidentiary basis for race-based decision-making and careful adoption of remedies to address discrimination, it is not, as Justice O'Connor stressed, an impossible test that no proof can meet. Strict scrutiny need not be "fatal in fact."

2. Gender-Conscious Programs

Whether affirmative action procurement programs that benefit women are subject to the lesser constitutional standard of "intermediate scrutiny" has yet to be settled by the Supreme Court.³⁵ Most courts, including the Fourth Circuit, have applied intermediate scrutiny to remedial programs for women,³⁶ and then upheld or struck down the WBE program under that standard.³⁷

The Fourth Circuit recently applied intermediate scrutiny in striking down the inclusion of white women in NCDOT's program for state-funded highway subcontracts. While gender-conscious measures may rest on "something less" than the "strong basis in evidence" needed for race-conscious relief, the program must still be based on an "evidence-informed analysis" rather than stereotypes or assumptions.³⁸ The State's disparity study established that women were substantially overutilized on its subcontracts, and such utilization was statistically significant. While it was probative that the value of the subcontracts won by women was only one-third that of white males and that the utilization of WBEs declined significantly during the Program's suspension, this evidence did not overcome the statistical results. The private sector evidence presented by the Study did not cure

³⁴ *Western States Paving Co., Inc. v. Washington Department of Transportation*, 407 F.3d 983, 994 (9th Cir. 2005), cert. denied, 546 U.S. 1170 (2006).

³⁵ *Cf. United States v. Virginia*, 518 U.S. 515 (1996) (applying standard of "exceedingly persuasive justification" in striking down Virginia Military Institute's males only admissions policy).

³⁶ *See, e.g., Rowe*, 615 F.3d at 242; *see also Associated Utility Contractors of Maryland, Inc. v. Mayor and City Council of Baltimore*, 83 F.Supp.2d 613, 620 (D. Md. 2000).

³⁷ *Scott*, 199 F.3d at 215, n.9 (5th Cir. 1999); *Engineering Contractors*, 122 F.3d at 907-910; *"Concrete Works II"*, 36 F.3d at 1519; *Contractors Association of Eastern Pennsylvania v. City of Philadelphia*, 6 F.3d 990, 1009 (3rd Cir. 1993); *Coral Construction*, 941 F.2d at 930-931; *but see Brunet v. City of Columbus*, 1 F.3d 390, 404 (6th Cir. 1993) (applying strict scrutiny).

³⁸ *Rowe*, 615 F.3d at 242.

this deficiency because no test for statistical significance was performed (although the court did not explain how much tests could be performed on that data set).³⁹ Nor did the Study present anecdotal evidence indicating the extent to which WBEs competing on public sector contracts also sought work on private sector contracts or that they faced discrimination in the private sector; to the contrary, “the anecdotal evidence indicates that most women subcontractors in North Carolina do not experience discrimination.”⁴⁰

3. Burdens of Production and Proof

In cases challenging the constitutionality of race- or gender-conscious procurement measures, the defendant has the initial burden of producing evidence to support the program. The plaintiff must then proffer evidence to rebut the government’s case, and bears the ultimate burden of production and persuasion that the affirmative action program is unconstitutional.⁴¹ The Fourth Circuit has held that “[w]hen a plaintiff alleges ... that a statute violates the Equal Protection Clause, not only as applied, but also on its face, the plaintiff bears a heavy burden.”⁴² Facial challenges are particularly disfavored.⁴³ There is no need of formal legislative findings,⁴⁴ nor “an ultimate judicial finding of discrimination before [a local government] can take affirmative steps to eradicate discrimination.”⁴⁵ When the statistical information is sufficient to support the inference of discrimination, the plaintiff must prove that the statistics are flawed.⁴⁶ “[M]ere speculation that the state’s evidence is insufficient or methodologically flawed does not suffice to rebut a state’s showing.”⁴⁷ A plaintiff cannot rest upon general criticisms of studies or other evidence; it must carry the case that the government’s proof is inadequate to meet strict scrutiny, rendering the legislation or governmental program illegal.⁴⁸ “Simply testifying that other methods of analyses existed, is insufficient to invalidate those analyses relied upon by [the agency].”⁴⁹

³⁹ This is not the case with the private sector evidence for this Study for North Carolina. See Chapter V, *infra*.

⁴⁰ *Rowe*, 615 F.3d. at 256.

⁴¹ *Adarand VII*, 228 F.3d at 1166; *Scott*, 199 F.3d at 219.

⁴² *Rowe*, 615 F.3d at 242.

⁴³ *Id.*

⁴⁴ *Webster*, 51 F.Supp2d at 1364.

⁴⁵ *Concrete Works II*, 36 F.3d at 1522.

⁴⁶ *Engineering Contractors*, 122 F.3d at 916; *Coral Construction*, 941 F.2d at 921.

⁴⁷ *Rowe*, 615 F.3d at 242.

⁴⁸ *Adarand VII*, 228 F.3d at 1166; *Engineering Contractors*, 122 F.3d at 916; *Contractors Association of Eastern Pennsylvania v. City of Philadelphia*, 91 F.3d 586, 597 (3rd Cir. 1996); *Concrete Works II*, 36 F.3d at 1522 1523; *Webster*, 51 F. Supp. 2d at 1364; see also *Wygant v. Jackson Board of Education*, 476 U.S. 267, 277-278 (1986).

⁴⁹ *GEOD Corp v. New Jersey Transit Corp*, Civil Action No. 2:04-cv-2425, slip op. at 20 (N. N.J. Oct. 192010).

The determination whether a plaintiff has met this burden is a question of law, subject to *de novo* review.⁵⁰

D. Strict Scrutiny as Applied to Federal Enactments

In *Adarand v. Peña*,⁵¹ the Supreme Court again overruled long settled law and extended the analysis of strict scrutiny under the Due Process Clause of the Fourteenth Amendment to federal enactments. “Federal racial classifications, like those of a State, must serve a compelling governmental interest, and must be narrowly tailored to further that interest.”⁵² Just as in the local government context, when evaluating federal legislation and regulations:

[t]he strict scrutiny test involves two questions. The first is whether the interest cited by the government as its reason for injecting the consideration of race into the application of law is sufficiently compelling to overcome the suspicion that racial characteristics ought to be irrelevant so far as treatment by the government is concerned. The second is whether the government has narrowly tailored its use of race, so that race-based classifications are applied only to the extent absolutely required to reach the proffered interest. The strict scrutiny test is thus a recognition that while classifications based on race may be appropriate in certain limited legislative endeavors, such enactments must be carefully justified and meticulously applied so that race is determinative of the outcome in only the very narrow circumstances to which it is truly relevant.⁵³

To comply with *Adarand*, Congress reviewed and revised the Disadvantaged Business Enterprise (DBE) Program statute⁵⁴ and implementing regulations⁵⁵ for federal-aid contracts in the transportation industry. These regulations govern the DBE Program administered by the North Carolina Department of Transportation for its federal-aid contracts. To date, every court that has considered the issue has

⁵⁰ *Rowe*, 615 F.3d at 241, fn. 5 (“Like many of our sister circuits, we will review *de novo*, rather than for clear error, the district court’s ultimate determination that the underlying facts demonstrate a “strong basis in evidence.”); *see, e.g., Concrete Works III*, 321 F.3d at 958; *Adarand VII*, 228 F.3d at 1161; *Associated General Contractors of Ohio v. Drabik*, 214 F.3d 730, 734 (6th Cir. 2000); *Scott*, 199 F.3d at 211; *but see Engineering Contractors*, 122 F.3d at 917 (meeting constitutional test is a question of fact, subject only to appellate review for abuse of discretion).

⁵¹ 515 U.S. 200 (1995).

⁵² *Id.* at 235.

⁵³ *Adarand Constructors, Inc. v. Peña*, 965 F. Supp. 1556, 1569-1570 (D. Colo. 1997), *rev’d*, 228 F.3d 1147 (2000) (“*Adarand IV*”); *see also Adarand III*, 515 U.S. at 227.

⁵⁴ Transportation Equity Act for the 21st Century (TEA-21), Pub. L. No. 105-178 (b)(1), 112 Stat. 107, 113.

⁵⁵ 49 C.F.R. Part 26.

found the regulations to be constitutional on their face.⁵⁶ While binding strictly only upon the federal DBE Program, these cases provide important guidance to the Department about the types of evidence necessary to continue to establish its compelling interest in implementing a contracting affirmative action program for its state-funded contracts and how to narrowly tailor its DBE and M/WBE programs. In particular, the Fourth Circuit noted with approval that NCDOT's M/WBE program for state-funded contracts largely mirrored Part 26.⁵⁷

All courts have held that Congress had strong evidence of widespread race discrimination in the construction industry.⁵⁸ Relevant evidence before Congress included:

- Disparities between the earnings of minority-owned firms and similarly situated non-minority-owned firms;
- Disparities in commercial loan denial rates between Black business owners compared to similarly situated non-minority business owners;
- The large and rapid decline in minorities' participation in the construction industry when affirmative action programs were struck down or abandoned; and
- Various types of overt and institutional discrimination by prime contractors, trade unions, business networks, suppliers and sureties against minority contractors.⁵⁹

The Eighth Circuit Court of Appeals took a "hard look" at the evidence Congress considered, and concluded that the legislature had:

[S]pent 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. In rebuttal, [the plaintiffs] presented evidence that the data were susceptible to multiple interpretations, but they failed to present affirmative evidence that no remedial action was necessary because minority-owned small businesses enjoy non-discriminatory access to and participation in highway contracts.

⁵⁶ See, e.g., *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); *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715 (7th Cir. 2007) ("*Northern Contracting III*").

⁵⁷ *Rowe*, 615 F.3d at 236.

⁵⁸ See also *Western States*, 407 F.3d at 993 ("In light of the substantial body of statistical and anecdotal material considered at the time of TEA-21's enactment, Congress had a strong basis in evidence for concluding that-in at least some parts of the country-discrimination within the transportation contracting industry hinders minorities' ability to compete for federally funded contracts.").

⁵⁹ *Id.*

Thus, they failed to meet their ultimate burden to prove that the DBE program is unconstitutional on this ground.⁶⁰

More recently, in section 1101(b)(1) of MAP 21,⁶¹ the reauthorization of the Federal Highway and Transit programs, Congress made further findings of the compelling need for the DOT DBE program:

(b) Disadvantaged Business Enterprises-

(1) FINDINGS- Congress finds that-

(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.⁶²

⁶⁰ *Sherbrooke*, 345 F.3d. at 970; *see also Adarand VII*, 228 F.3d at 1175 (Plaintiff has not met its ultimate 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.”).

⁶¹ Pub. L. 112-141; July 6, 2012

⁶² This was actually the second finding regarding the continuing compelling interest in remedying discrimination that Congress made in 2012. Earlier, in section 140(a) of the FAA Modernization and Reform Act of 2012 (Pub. L. 112-95), which reauthorized the Airport Improvement Program, a DOT financial assistance program that closely parallels the DOT highway and transit programs, Congress said the following:

(a) FINDINGS—Congress finds the following:

Next, the regulations were facially narrowly tailored. Unlike the prior program,⁶³ Part 26 provides that:

- The overall goal must be based upon demonstrable evidence of the number of DBEs ready, willing, and able to participate on the recipient's federally assisted contracts.
- The goal may be adjusted to reflect the availability of DBEs but for the effects of the DBE Program and of discrimination.
- The recipient must meet the maximum feasible portion of the goal through race-neutral measures as well as estimate that portion of the goal it predicts will be met through such measures.
- The use of quotas is prohibited and set-asides are limited to only those egregious situations where there is no other remedy, and USDOT concurrence would be necessary for the use of set-asides in such situations; it has never been granted.
- The goals are to be adjusted during the year to remain narrowly tailored.
- Absent bad faith administration of the Program, a recipient cannot be penalized for not meeting its goal.
- The presumption of social disadvantage for racial and ethnic minorities and women is rebuttable, "wealthy minority owners and wealthy minority firms are excluded, and certification is available to persons who are not presumptively disadvantaged but can demonstrate actual social and economic disadvantage."
- Exemptions and waivers from any or all Program requirements (except those pertaining to certification criteria for DBEs) are available.⁶⁴

(1) While significant progress has occurred due to the establishment of the airport disadvantaged business enterprise program (49 U.S.C. 47107(e) and 47113), discrimination and related barriers continue to pose significant obstacles for minority- and women-owned businesses seeking to do business in airport-related markets across the Nation. These continuing barriers merit the continuation of the airport disadvantaged business enterprise program.

(2) 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. This testimony and documentation shows that race- and gender-neutral efforts alone are insufficient to address the problem.

(3) This testimony and documentation demonstrates that discrimination across the Nation poses a barrier to full and fair participation in airport-related businesses of women business owners and minority business owners in the racial groups detailed in parts 23 and 26 of title 49, Code of Federal Regulations, and has impacted firm development and many aspects of airport-related business in the public and private markets.

(4) This testimony and documentation provides a strong basis that there is a compelling need for the continuation of the airport disadvantaged business enterprise program and the airport concessions disadvantaged business enterprise program to address race and gender discrimination in airport related business.

⁶³ 49 C.F.R. Part 23.

⁶⁴ *Sherbrooke*, 345 F.3d. at 973.

These elements have led the courts to conclude that the program is narrowly tailored on its face. First, the regulations place strong emphasis on the use of race-neutral means to achieve minority and women participation. Relying upon *Grutter v. Bollinger*, the Eighth Circuit held that while “[n]arrow tailoring does not require the exhaustion of every conceivable race-neutral alternative...it does require serious, good faith consideration of workable race-neutral alternatives.”⁶⁵

The DBE Program is also flexible. Eligibility is limited to small firms owned by persons whose net worth is under a certain amount.⁶⁶ There are built-in Program time limits, and a recipient may terminate race-conscious contract goals if it meets its annual overall goal through race-neutral means for two consecutive years. Moreover, the authorizing legislation is subject to Congressional reauthorization that will ensure periodic public debate.

Next, the courts have held that the goals are to be tied to the relevant contracting market. “Though the underlying estimates may be inexact, the exercise requires the States to focus on establishing realistic goals for DBE participation in the relevant contracting markets. This stands in stark contrast to the program struck down in *Croson*.”⁶⁷

Finally, Congress has taken significant steps to minimize the race-conscious nature of the Program. “[W]ealthy minority owners and wealthy minority-owned firms are excluded, and certification is available to persons who are not presumptively [socially] disadvantaged but can demonstrate actual social and economic disadvantage. Thus, race is made relevant in the program, but it is not a determinative factor.”⁶⁸

DBE programs based upon a methodology similar to that for this Study for NCDOT, including the availability analysis and the examination of disparities in the business formation rates and business earnings of minorities and women compared to similarly situated non-minority males, have been held to be narrowly tailored in their application of Part 26. For example, in upholding the Minnesota Department of Transportation’s DBE program using the same approach, the Eighth Circuit opined that while plaintiff attacked the study’s data and methods,

it failed to establish that better data was [sic] available or that Mn/DOT was otherwise unreasonable in undertaking this thorough analysis and in relying on its results. The precipitous drop in DBE participation in 1999, when no race-conscious methods were employed, supports Mn/DOT’s conclusion that a substantial portion of its 2001 overall goal could not be

⁶⁵ *Id.* at 972.

⁶⁶ The personal net worth limit was \$750,000 when the DBE program regulations were amended to meet strict scrutiny in 1999. The limit was increased to \$1.32 million in 2012, and is now indexed by the Consumer Price Index. 49 C.F.R. § 26.67(b)(1).

⁶⁷ *Id.*

⁶⁸ *Id.* at 973.

met with race-neutral measures, and there is no evidence that Mn/DOT failed to adjust its use of race-conscious and race-neutral methods as the year progressed, as the DOT regulations require.⁶⁹

Likewise, the Seventh Circuit Court of Appeals affirmed the district court's trial verdict that the Illinois Department of Transportation's application of Part 26 was narrowly tailored based in large part upon a report that applied a similar availability methodology and expert trial testimony.⁷⁰ IDOT had a compelling interest in remedying discrimination in the marketplace for federally funded highway contracts, and its Federal Fiscal Year 2005 DBE Plan was narrowly tailored to that interest and in conformance with the DBE Program regulations.

To determine whether IDOT met its constitutional and regulatory burdens, the court reviewed the evidence of discrimination against minority and women construction firms in the Illinois area. IDOT had commissioned an Availability Study to meet Part 26's requirements. Similar to this Study for North Carolina, the IDOT Study included a custom census of the availability of DBEs in IDOT's marketplace, weighted by the location of IDOT's contractors and the types of goods and services IDOT procures. NERA estimated that DBEs comprised 22.77 percent of IDOT's available firms.⁷¹ The IDOT Study next examined whether and to what extent there are disparities between the rates at which DBEs form businesses relative to similarly situated non-minority men, and the relative earnings of those businesses. If disparities are large and statistically significant, then the inference of discrimination can be made. Controlling for numerous variables such as the owner's age, education, and the like, the Study found that in a race- and gender-neutral marketplace the availability of DBEs would be approximately 20.8 percent higher, for an estimate of DBE availability "but for" discrimination of 27.51 percent.

In addition to the IDOT Availability Study, the court also relied upon:

- An Availability Study conducted for Metra, the Chicago-area commuter rail agency;
- Expert reports relied upon by an earlier trial court in finding that the City of Chicago had a compelling interest in its minority- and women-owned business enterprise ("M/WBE") program for construction contracts;⁷²
- Expert reports and anecdotal testimony presented to the Chicago City Council in support of the City's revised M/WBE Procurement Program ordinance in 2004;

⁶⁹ *Id.*

⁷⁰ *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715 (7th Cir. 2007) (7th Cir. 2007) ("*Northern Contracting III*"). Ms. Holt authored IDOT's DBE goal submission, and testified as one of IDOT's expert witnesses at the trial.

⁷¹ This baseline figure of DBE availability is the "step 1" estimate U.S. DOT grant recipients must make pursuant to 49 CFR §26.45.

⁷² *Builders Association of Greater Chicago v. City of Chicago*, 298 F. Supp. 2d 725 (N.D. Ill. 2003).

- Anecdotal evidence gathered at IDOT’s public hearings on the DBE program;
- Data on DBE involvement in construction projects in markets without DBE goals; and
- Data on the utilization of DBEs n contracts without goals, in IDOT’s “zero goal” experiment, where DBEs received approximately 1.5 percent of the total value of the contracts. This was designed to test the results of “race-neutral” contracting policies, that is, the utilization of DBEs on contracts without goals, which several courts have held to be highly relevant and probative of the continuing need for race-conscious remedies.

“Also of note, IDOT examined the system utilized by the Illinois State Toll Highway Authority, which does not receive federal funding; though the Tollway has a DBE goal of 15 percent, this goal is completely voluntary -- the average DBE usage rate in 2002 and 2003 was 1.6 percent. On the basis of all of this data, IDOT adopted 22.77 percent as its Fiscal Year 2005 DBE goal.”⁷³

Based upon this record, the court of appeals agreed with the trial court’s judgment that the Program was narrowly tailored. IDOT’s plan was based upon sufficient proof of discrimination such that race-neutral measures alone would be inadequate to assure that DBEs operate on a “level playing field” for government contracts.

The stark disparity in DBE participation rates on goals and non-goals contracts, when combined with the statistical and anecdotal evidence of discrimination in the relevant marketplaces, indicates that IDOT’s 2005 DBE goal represents a “plausible lower-bound estimate” of DBE participation in the absence of discrimination.... Plaintiff presented no persuasive evidence contravening the conclusions of IDOT’s studies, or explaining the disparate usage of DBEs on goals and non-goals contracts.... IDOT’s proffered evidence of discrimination against DBEs was not limited to alleged discrimination by prime contractors in the award of subcontracts. IDOT also presented evidence that discrimination in the bonding, insurance, and financing markets erected barriers to DBE formation and prosperity. Such discrimination inhibits the ability of DBEs to bid on prime contracts, thus allowing the discrimination to indirectly seep into the award of prime contracts, which are otherwise awarded on a race- and gender-neutral basis. This indirect discrimination is sufficient to establish a compelling governmental interest in a DBE program.⁷⁴

The district court in a challenge to New Jersey Transit’s (NJT) DBE program, applied *Sherbrooke, Northern Contracting* and *Western States* to dismiss plaintiff’s argument that New Jersey must independently establish its compelling interest in implementing the federal regulations as a “red herring.”⁷⁵ It held that a recipient’s

⁷³ *Northern Contracting III*, 473 F.3d at 719.

⁷⁴ *Northern Contracting II*, at * 82.

⁷⁵ *GEOD Corp. v. New Jersey Transit Corp.*, 678 F.Supp. 276, 282 (D. N.J 2009).

constitutional duty under Part 26 is to narrowly tailor its program; a recipient “does not need to justify establishing its DBE program, as it has already been justified by the [federal] legislators.”⁷⁶ After a bench trial, the court held that NJT’s program is narrowly tailored. NJT established the effects of past discrimination through a disparity index, which revealed a pattern of discrimination against DBEs. NJT then followed the three-step goal setting process required by Part 26. That the plaintiff’s expert would have preferred another method was insufficient to meet the burden of persuasion. NJT’s program met all the factors for narrow tailoring, including that the burden on non-DBE subcontractors was minimal.⁷⁷

In 2008, the Federal Circuit Court of Appeals struck down the Department of Defense (DOD) program for Small Disadvantaged Businesses (SDBs) in *Rothe Development Corporation v. U.S. Department of Defense*.⁷⁸ The program set an overall annual goal of five percent for DOD contracting with SDBs and authorized various race-conscious measures to meet the goal.

In *Rothe VII*,⁷⁹ the appeals court held that the DOD program violated strict scrutiny because Congress did not have a “strong basis in evidence” upon which to conclude that DOD was a passive participant in racial discrimination in relevant markets across the country. The six local disparity studies upon which the DOD primarily relied for evidence of discrimination did not meet the compelling interest requirement, and its other statistical and anecdotal evidence did not rise to meet the heavy constitutional burden.

Of particular relevance to this report for NCDOT, the primary focus of the court’s analysis was the six disparity studies. The court reaffirmed that such studies are relevant to the compelling interest analysis.⁸⁰ It then rejected *Rothe*’s argument that data more than five years old must be discarded, stating “We decline to adopt such a *per se* rule here.... [The government] should be able to rely on the most recently available data so long as that data is reasonably up-to-date.”⁸¹

In the absence of expert testimony about accepted econometric models of discrimination, the court was troubled by the failure of five of the studies to account

⁷⁶ *Id.*

⁷⁷ *GEOD Corp v. New Jersey Transit Corp*, Civil Action No. 2:04-cv-2425, slip op. at 20 (D. N.J. Oct. 19, 2010).

⁷⁸ *Rothe Development Corporation v. U.S. Department of Defense*, 545 F.3d 1023 (*Fed. Cir.* 2008). We note that the jurisdiction of the Court of Appeals for the Federal Circuit is limited to the jurisdiction described in 28 U.S.C. §§ 1292 (c) and (d) and 1295. Pursuant to 28 U.S.C. § 1295(a)(2), jurisdiction in *Rothe* was based upon the plaintiff’s claim under the Tucker Act, 28 U.S.C. § 1346(a)(2), which governs contract claims against the United States.

⁷⁹ This opinion was the latest iteration of an 11-year-old challenge by a firm owned by a White female to the DOD’s award of a contract to an Asian American–owned business despite the fact that plaintiff was the lowest bidder.

⁸⁰ *Rothe*, 545 F.3d at 1037-1038.

⁸¹ *Id.* at 1038-1039.

for size differences and “qualifications” of the minority firms in the denominator of the disparity analysis, or as the court labeled it, “relative capacity.”⁸² The court was concerned about the studies’ inclusion of possibly “unqualified” minority firms and the failure to account for whether a firm can perform more than one project at a time in two of the studies.⁸³ In the court’s view, the combination of these perceived deficits rendered the studies insufficiently probative to meet Congress’ burden.

The appellate court ignored the analyses in the cases upholding the USDOT Disadvantaged Business Enterprise Program and the City of Denver’s local affirmative action contracting program where the fallacy of “capacity” was debunked, all of which were cited extensively by the district court. It relied instead on a report from the USCCR, which adopts the views of anti-affirmative action writers, including those of Rothe’s consultant, political science professor Dr. George LaNoue.⁸⁴

However, the court was careful to limit the reach of its review to the facts of the case:

To be clear, we do *not* hold that the defects in the availability and capacity analyses in these six disparity studies render the studies wholly unreliable for any purpose. Where the calculated disparity ratios are low enough, we do 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. And we recognize that a minority owned firm’s capacity and qualifications may themselves be affected by discrimination. But we hold that the defects we have noted detract dramatically from the probative value of these six studies, and, in conjunction with their limited geographic coverage, render the studies insufficient to form the statistical core of the “strong basis in evidence” required to uphold the statute.⁸⁵

The Federal Circuit concluded its analysis of compelling interest by “stress[ing] that [its] holding is grounded in the particular terms of evidence offered by DOD and relied on by the district court in this case, and should not be construed as stating blanket rules, for example, about the reliability of disparity studies.”⁸⁶

Given the holding that Congress lacked a strong basis in evidence for the DOD program, the court did not rule on whether its provisions were narrowly tailored. The court did note, however, in its prior rulings that the program is flexible, limited in

⁸² *Id.* at 1042.

⁸³ *Ibid.*

⁸⁴ U.S. Commission on Civil Rights, *Disparity Studies as Evidence of Discrimination in Federal Contracting* (May 2006): 79.

⁸⁵ *Rothe*, 545 F.3d at 1045.

⁸⁶ *Id.* at 1049.

duration, and not unduly burdensome to third parties, and that the program has tended to narrow the reach of its remedies over time.⁸⁷

E. Strict Scrutiny as Applied to NCDOT's Minority- and Women-Owned Business Enterprise Program

NCDOT must independently meet strict scrutiny for its non-USDOT funded contracts. It must establish that it has a compelling interest in remedying discrimination based on a "strong basis in evidence" and that the program's components are narrowly tailored to that evidence. The following are the evidentiary elements courts have looked to in examining the basis for and determining the constitutional validity of local race- and gender-conscious programs and the steps in performing a disparity study necessary to meet these elements.

1. Establish a Compelling Interest for NCDOT's Minority- and Women-Owned Business Enterprise Program

It is well established that disparities between an agency's utilization of M/WBEs and their availability in the relevant marketplace provide a sufficient basis for the consideration of race- or gender-conscious remedies. Proof of the disparate impacts of economic factors on M/WBEs and the disparate treatment of such firms by actors critical to their success will meet strict scrutiny. Discrimination must be shown using statistics and economic models to examine the effects of systems or markets on different groups, as well as by evidence of personal experiences with discriminatory conduct, policies or systems.⁸⁸ Specific evidence of discrimination or its absence may be direct or circumstantial, and should include economic factors and opportunities in the private sector affecting the success of M/WBEs.⁸⁹

Croson's admonition that "mere societal" discrimination is not enough to meet strict scrutiny is satisfied where the government presents evidence of discrimination in the industry targeted by the program. "If such evidence is presented, it is immaterial for constitutional purposes whether the industry discrimination springs from widespread discriminatory attitudes shared by society or is the product of policies, practices, and attitudes unique to the industry... The genesis of the identified discrimination is irrelevant." There is no requirement to "show the existence of specific discriminatory policies and that those policies were more than a reflection of societal discrimination."⁹⁰

Nor must a government prove that it is itself guilty of discrimination to meet its burden. In upholding Denver's M/WBE construction program, the court stated that Denver can show its compelling interest by "evidence of private discrimination in the local construction industry coupled with evidence that it has become a passive

⁸⁷ *Id.* at 1049.

⁸⁸ *Adarand VII*, 228 F.3d at 1166 ("statistical and anecdotal evidence are appropriate").

⁸⁹ *Id.*

⁹⁰ *Concrete Works IV*, 321 F.3d at 976.

participant in that discrimination...[by] linking its spending practices to the private discrimination.”⁹¹ Denver further linked its award of public dollars to discriminatory conduct through the testimony of M/WBEs that identified general contractors who used them on City projects with M/WBE goals but refused to use them on private projects without goals.

a. Define NCDOT’s Market Area

The first step in evaluating NCDOT’s compelling interest is to determine the market areas in which the agency operates. *Croson* states that a state or local government may only remedy discrimination within its own contracting market area. The City of Richmond was specifically faulted for including minority contractors from across the country in its program, based on national data considered by Congress.⁹² NCDOT must therefore empirically establish the geographic and product dimensions of its contracting and procurement market area to ensure that the program meets strict scrutiny. This is a fact driven inquiry; it may or may not be the case that the market area is the government’s jurisdictional boundaries.⁹³

A commonly accepted definition of geographic market area for disparity studies is the locations that account for at least 75 percent of the agency’s contract and subcontract dollar payments.⁹⁴ Likewise, the accepted approach is to analyze those detailed industries that make up at least 75 percent of the prime contract and subcontract payments for the Study period.⁹⁵

b. Examine Disparities between M/WBE Availability and NCDOT’s Utilization of M/WBEs

Next, the study must estimate the availability of minorities and women to participate in the Department’s contracts and its history of utilizing M/WBEs as prime contractors and associated subcontractors. The primary inquiry is whether there are statistically significant disparities between the availability of M/WBEs and the utilization of such firms.

Where 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... In the extreme case, some form of narrowly

⁹¹ *Id.* at 977.

⁹² *Croson*, 488 U.S. at 508.

⁹³ *Concrete Works II*, 36 F.3d at 1520 (to confine data to strict geographic boundaries would ignore “economic reality”).

⁹⁴ “*Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*,” Transportation Research Board of the National Academy of Sciences, NCHRP Report, Issue No. 644, 2010, p. 49 (“National Disparity Study Guidelines”).

⁹⁵ *Id.* at pp. 50-51.

tailored racial preference might be necessary to break down patterns of deliberate exclusion.⁹⁶

This is known as the “disparity ratio” or “disparity index.” A disparity ratio measures the participation of a group in the government’s contracting opportunities by dividing that group’s utilization by the availability of that group, and multiplying that result by 100%. Courts have looked to disparity indices in determining whether strict scrutiny is satisfied.⁹⁷ An index less than 100 percent indicates that a given group is being utilized less than would be expected based on its availability, and courts have adopted the Equal Employment Opportunity Commission’s “80 percent” rule that a ratio less than 80 percent presents a *prima facie* case of discrimination, referred to as “substantive” significance.⁹⁸

The Fourth Circuit has recognized the “utility of the disparity index” in reviewing NCDOT’s M/WBE program for its state-funded highway subcontracts.⁹⁹ The State’s Study calculated a disparity index for each racial group and for women, by comparing NCDOT’s utilization of MBEs and WBEs to their availability, as estimated by using a vendor listing. A substantively large disparity— a “disparity index lower than 80 percent [is] an indication of discrimination.”¹⁰⁰

The first step in the disparity analysis is to calculate the availability of minority- and women-owned firms in NCDOT’s geographic and industry market area. The recommended approach in the National Study Guidelines is to use the “custom census” approach, which relies upon a broad pool of firms to estimate availability. In addition to creating the disparity ratio, correct measures of availability are necessary to determine whether discriminatory barriers depress the formation of firms by minorities and women, and the success of such firms in doing business in both the private and public sectors.¹⁰¹

The second step is to determine whether there are disparities between the availability estimates and NCDOT’s utilization of M/WBEs on its locally funded

⁹⁶ *Croson*, 488 U.S. at 509; see *Webster*, 51 F.Supp.2d at 1363, 1375.

⁹⁷ *Scott*, 199 F.3d at 218; see also *Concrete Works II*, 36 F.3d at 1526-1527; *O’Donnell Construction Co., Inc., v. District of Columbia*, 963 F.2d 420, 426 (D.C. Cir. 1992); *Cone Corp. v. Hillsborough County*, 908 F.2d 908, 916 (11th Cir. 1990), cert. denied, 498 U.S. 983 (1990).

⁹⁸ 29 C.F.R. § 1607.4(D) (“A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact.”); see *Engineering Contractors II*, 122 F.3d at 914.

⁹⁹ *Rowe*, 615 F.3d at 243-44.

¹⁰⁰ *Id.* at 243.

¹⁰¹ *Northern Contracting, Inc. v. Illinois Department of Transportation*, 2005 U.S. Dist. LEXIS 19868, at *70 (Sept. 8, 2005) (IDOT’s custom census approach was supportable because “discrimination in the credit and bonding markets may artificially reduce the number of M/WBEs”).

contracts. Where possible, statistical techniques are applied to examine whether any disparities are significant.

There is no requirement to control for firm size, area of specialization, and whether the firm had bid on agency projects. While it may be true that M/WBEs are smaller in general than White male firms, most construction firms are small and can expand and contract to meet their bidding opportunities. Importantly, the courts have recognized that size and experience are not race- and gender-neutral variables: “M/WBE construction firms are generally smaller and less experienced *because of* discrimination.”¹⁰² To rebut this inference, a plaintiff must proffer its own study showing that the disparities disappear when such variables are held constant and that controlling for firm specialization or bidding behavior explained the disparities. Additionally, *Croson* does not “require disparity studies that measure whether construction firms are able to perform a *particular contract*.”¹⁰³

The agency need not prove that the statistical inferences of discrimination are “correct.” In upholding Denver’s M/WBE Program, the Tenth Circuit noted that strong evidence supporting Denver’s determination that remedial action was necessary need not have been based upon “irrefutable or definitive” proof of discrimination. Statistical evidence creating inferences of discriminatory motivations was sufficient and therefore evidence of market area discrimination was properly used to meet strict scrutiny. To rebut this type of evidence, the plaintiff must prove by a preponderance of the evidence that such proof does not support those inferences.¹⁰⁴ Nor must the government demonstrate that the “ordinances will *change* discriminatory practices and policies” in the local market area; such a test would be “illogical” because firms could defeat the remedial efforts simply by refusing to cease discriminating.¹⁰⁵

NCDOT need not prove that private firms directly engaged in any discrimination in which the government passively participates do so intentionally, with the purpose of disadvantaging minorities and women.

Denver’s only burden was to introduce evidence which raised the inference of discriminatory exclusion in the local construction industry and link its spending to that discrimination.... Denver 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. To impose such a burden on a municipality would be tantamount to requiring proof of

¹⁰² *Concrete Works III*, 321 F.3d at 983 (emphasis in the original).

¹⁰³ *Id.* at 987-88 (emphasis in the original).

¹⁰⁴ *Id.* at 971.

¹⁰⁵ *Id.* at 973 (emphasis in the original).

discrimination and would eviscerate any reliance the municipality could place on statistical studies and anecdotal evidence.¹⁰⁶

Similarly, statistical evidence by its nature cannot identify the individuals responsible for the discrimination.¹⁰⁷

c. Evaluate the Results of Unremediated Markets

Where such evidence is available, a study should next review the results of contracts solicited without DBE or M/WBE goals. Courts have held that such outcomes are an indicator of whether discrimination continues to impact opportunities in public contracting. Evidence of race and gender discrimination in relevant “unremediated”¹⁰⁸ markets provides an important indicator of what level of actual M/WBE participation can be expected in the absence of government mandated affirmative efforts to contract with D/M/WBEs.¹⁰⁹ As the Eleventh Circuit has acknowledged, “the program at issue may itself be masking discrimination that might otherwise be occurring in the relevant market.”¹¹⁰ If M/WBE utilization is below availability in unremediated markets, an inference of discrimination may be supportable. In finding that Congress had strong evidence of discrimination in the construction industry, upon which to base the DBE program, the Tenth Circuit held that “minority-owned firms are seldom or never invited to bid for subcontracts on projects that do not contain affirmative action requirements.”¹¹¹

The virtual disappearance of M/WBE participation after programs have been enjoined or abandoned strongly indicates substantial barriers to minority subcontractors, “raising the specter of racial discrimination.”¹¹² Unremediated markets analysis addresses whether the government has been and continues to be a “passive participant” in such discrimination, in the absence of affirmative action remedies.¹¹³ The court in the Chicago case held that the “dramatic decline in the use of M/WBEs when an affirmative action program is terminated, and the paucity of use of such firms when no affirmative action program was ever initiated,” was proof of the City’s compelling interest in employing race- and gender-conscious measures.¹¹⁴

¹⁰⁶ *Id.* at 971.

¹⁰⁷ *Id.* at 973.

¹⁰⁸ “Unremediated market” means “markets that do not have race- or gender-conscious subcontracting goals in place to remedy discrimination.” *Northern Contracting II*, at *36.

¹⁰⁹ See, e.g., *Western States*, 407 F.3d at 992 (Congress properly considered evidence of the “significant drop in racial minorities’ participation in the construction industry” after state and local governments removed affirmative action provisions).

¹¹⁰ *Engineering Contractors*, 122 F.3d at 912.

¹¹¹ *Adarand VII*, 228 F.3d at 1170.

¹¹² *Id.* at 1174.

¹¹³ See also *Contractors Association of Eastern Pennsylvania v. City of Philadelphia*, 91 F.3d 586, 599-601 (3rd Cir. 1996) (“Philadelphia III”).

¹¹⁴ *Builders Association*, 298 F. Supp.2d at 737; see also *Concrete Works III*, 321 F.3d at 987-988.

Evidence of unremediated markets “sharpens the picture of local market conditions for MBEs and WBEs.”¹¹⁵

The Fourth Circuit applied these principles in reviewing the M/WBE program in *H.B. Rowe v. Tippett*, the challenge to NCDOT’s earlier State program. The court looked to the drastic drop in the participation of these groups as a result of the suspension of the program in holding that North Carolina had produced strong evidence of discrimination for some groups. “[T]he 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.... Such an inference is particularly compelling for minority-owned businesses because, even during the 2004 study period, prime contractors continued to underutilize them on state-funded road projects.”¹¹⁶

Therefore, if M/WBEs are “overutilized” because of the entity’s program, that does not end the study’s inquiry. Where the government has been implementing affirmative action remedies, M/WBE utilization reflects those efforts; it does not signal the end of discrimination. Any M/WBE “overutilization” on projects with goals goes only to the weight of the evidence because it reflects the effects of a remedial program. For example, Denver presented evidence that goals and non-goals projects were similar in purpose and scope and that the same pool of contractors worked on both types. “Particularly persuasive” was evidence that M/WBE participation declined significantly when the program was amended in 1989; the utilization of M/WBEs on City projects had been affected by the affirmative action programs that have been in place in one form or another since 1977.¹¹⁷

d. Examine Economy-Wide Evidence of Race- and Gender-Based Disparities

The courts have repeatedly held that analysis of disparities in the rates at which M/WBEs in the government’s markets form businesses compared to similar non-M/WBEs, their earnings from such businesses, and their access to capital markets are highly relevant to the determination whether the market functions properly for all firms regardless of the race or gender of their ownership. These analyses contributed to the successful defense of Chicago’s construction program.¹¹⁸ As explained by the Tenth Circuit, this type of evidence

demonstrates the existence of two kinds of discriminatory barriers to minority subcontracting enterprises, both of which show a strong link

¹¹⁵ *Concrete Works II*, 36 F.3d at 1529.

¹¹⁶ *Rowe*, 615 F.3d at 247-48.

¹¹⁷ *Concrete Works III*, 321 F.3d at 987-988.

¹¹⁸ *Builders Association of Greater Chicago v. City of Chicago*, 298 F.Supp.2d 725 (N.D. Ill. 2003) (holding that City of Chicago’s M/WBE program for local construction contracts met compelling interest using this framework).

between racial disparities in the federal government's disbursements of public funds for construction contracts and the channeling of those funds due to private discrimination. The first discriminatory barriers are to the formation of qualified minority subcontracting enterprises due to private discrimination, precluding from the outset competition for public construction contracts by minority enterprises. The second discriminatory barriers are to fair competition between minority and non-minority subcontracting enterprises, again due to private discrimination, precluding existing minority firms from effectively competing for public construction contracts. The government also presents further evidence in the form of local disparity studies of minority subcontracting and studies of local subcontracting markets after the removal of affirmative action programs.... The government's evidence is particularly striking in the area of the race-based denial of access to capital, without which the formation of minority subcontracting enterprises is stymied.¹¹⁹

Business discrimination studies and lending studies are relevant and probative because they show a strong link between the disbursement of public funds and the channeling of those funds due to private discrimination. "Evidence that private discrimination results in barriers to business formation is relevant because it demonstrates that M/WBEs are precluded *at the outset* from competing for public construction contracts. Evidence of barriers to fair competition is also relevant because it again demonstrates that *existing* M/WBEs are precluded from competing for public contracts."¹²⁰ Despite the contentions of plaintiffs that possibly dozens of factors might influence the ability of any individual to succeed in business, the courts have rejected such impossible tests and held that business formation studies are not flawed because they cannot control for subjective descriptions such as "quality of education," "culture" and "religion."

For example, in unanimously upholding the USDOT DBE Program, the courts agree that disparities between the earnings of minority-owned firms and similarly situated non-minority-owned firms and the disparities in commercial loan denial rates between Black business owners compared to similarly situated non-minority business owners are strong evidence of the continuing effects of discrimination.¹²¹ The Eighth Circuit Court of Appeals took a "hard look" at the evidence Congress considered, and concluded that the legislature had

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. In rebuttal, [the plaintiffs] presented evidence that the data were susceptible to multiple interpretations, but they failed to present affirmative evidence that no

¹¹⁹ *Adarand VII*, 228 F.3d at 1168-69.

¹²⁰ *Id.*

¹²¹ *Id.*; *Western States*, 407 F.3d at 993; *Northern Contracting, Inc. v. Illinois Department of Transportation*, 2004 U.S. Dist. LEXIS 3226 at *64 (N.D. Ill., Mar. 3, 2004) ("Northern Contracting I");

remedial action was necessary because minority-owned small businesses enjoy non-discriminatory access to and participation in highway contracts. Thus, they failed to meet their ultimate burden to prove that the DBE program is unconstitutional on this ground.¹²²

e. Examine Anecdotal Evidence of Race- and Gender-Based Barriers

In addition to quantitative data, a study should also explore anecdotal evidence of experiences with discrimination in contracting opportunities because it is relevant to the question of whether observed statistical disparities are due to discrimination and not to some other non-discriminatory cause or causes. As observed by the Supreme Court, anecdotal evidence can be persuasive because it “brought the cold [statistics] convincingly to life.”¹²³ Evidence about discriminatory practices engaged in by prime contractors, bonding companies, suppliers, professional associations, lenders and other actors relevant to business opportunities has been found relevant regarding barriers both to minority firms’ business formation and to their success on governmental projects.¹²⁴ While anecdotal evidence is insufficient standing alone, “[p]ersonal accounts of actual discrimination or the effects of discriminatory practices may, however, vividly complement empirical evidence. Moreover, anecdotal evidence of a [government’s] institutional practices that exacerbate discriminatory market conditions are [sic] often particularly probative.”¹²⁵ “[W]e do not set out a categorical rule that every case must rise or fall entirely on the sufficiency of the numbers. To the contrary, anecdotal evidence might make the pivotal difference in some cases; indeed, in an exceptional case, we do not rule out the possibility that evidence not reinforced by statistical evidence, as such, will be enough.”¹²⁶

There is no requirement that anecdotal testimony be “verified” or corroborated, as befits the role of evidence in legislative decision-making as opposed to judicial proceedings. “Plaintiff offers no rationale as to why a fact finder could not rely on the State’s ‘unverified’ anecdotal data. Indeed, a fact finder could very well conclude that anecdotal evidence need not— 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’ perception.”¹²⁷ Likewise, the Tenth Circuit held that “Denver was not required to present corroborating evidence and [plaintiff] was free to present its own witnesses to either refute the incidents described by Denver’s witnesses or

¹²² *Sherbrooke*, 345 F.3d. at 970; see also *Adarand VII*, 228 F.3d at 1175 (Plaintiff has not met its 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.”).

¹²³ *International Brotherhood of Teamsters v. United States*, 431 U.S. 324, 399 (1977).

¹²⁴ *Adarand VII*, 228 F.3d at 1168-1172.

¹²⁵ *Concrete Works II*, 36 F.3d at 1520, 1530.

¹²⁶ *Engineering Contractors*, 122 F.3d at 926.

¹²⁷ *Id.* at 249.

to relate their own perceptions on discrimination in the Denver construction industry.”¹²⁸

2. Narrowly Tailoring a Disadvantaged Business Enterprise Program and a Minority and Women Business Enterprise Program for NCDOT

The DBE and M/WBE programs must both be narrowly tailored to evidence of discrimination in NCDOT’s markets. The courts have repeatedly examined the following factors in determining whether race-based remedies are narrowly tailored to achieve their purpose:

- The efficacy of race-neutral remedies at overcoming identified discrimination;
- The relationship of numerical benchmarks for government spending to the availability of minority- and women-owned firms and to subcontracting goal setting procedures;
- The flexibility of the program requirements, including the provision for good faith efforts to meet goals and contract specific goal setting procedures;
- The congruence between the remedies adopted and the beneficiaries of those remedies;
- Any adverse impact of the relief on third parties; and
- The duration of the program.¹²⁹

The Fourth Circuit has “identified the following factors as relevant in evaluating whether a state statute is narrowly tailored:

(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.”¹³⁰

Programs that lack waivers for firms that fail to meet the subcontracting goals but make good faith efforts to do so have been struck down.¹³¹ In *Croson*, the Court refers approvingly to the contract-by-contract waivers used in the USDOT’s DBE

¹²⁸ *Concrete Works III*, 321 F.3d at 989.

¹²⁹ *United States v. Paradise*, 480 U.S. 149, 171 (1987); see also *Sherbrooke*, 345 F.3d at 971-972.

¹³⁰ *Rowe*, 615 F.3d at 252.

¹³¹ See, e.g., *BAGC v. Chicago*, 298 F. Supp.2d at 740 (“Waivers are rarely or never granted...The City program is a rigid numerical quota...formulistic percentages cannot survive strict scrutiny.”).

program.¹³² This feature has been central to the holding that the DBE program meets the narrow tailoring requirement.¹³³

a. Consider Race- and Gender-Neutral Remedies

Race- and gender-neutral approaches are a necessary component of a defensible and effective DBE and a M/WBE program,¹³⁴ and the failure to seriously consider such remedies has been fatal to several programs.¹³⁵ Such measures include unbundling of contracts into smaller units, providing technical support, and addressing issues of financing, bonding, and insurance important to all small and emerging businesses.¹³⁶ In *Rowe*, the court observed, “Rowe identifies no viable race-neutral alternatives that North Carolina has *failed* to consider and adopt. Notably, the State has undertaken most of the race-neutral alternatives identified” in 49 C.F.R. Part 26).¹³⁷ The Fourth Circuit specifically noted North Carolina’s Small Business Enterprise Program for contracts less than \$500,000 and supportive services initiatives for M/WBEs (e.g., assistance with accounting, taxes, marketing, bidding, etc.) as permissible approaches.¹³⁸

Difficulty in accessing procurement opportunities, restrictive bid specifications, excessive experience requirements, and overly burdensome insurance and/or bonding requirements, for example, might be addressed by the Department without resorting to the use of race or gender in its decision-making. Effective remedies include unbundling of contracts into smaller units, providing technical support, and developing programs to address issues of financing, bonding, and insurance important to all small and emerging businesses.¹³⁹ Further, governments have a duty to ferret out and punish discrimination against minorities and women by their contractors, staff, lenders, bonding companies or others.¹⁴⁰ At a minimum, entities

¹³² 488 U.S. at 508; see also *Adarand VII*, 228 F.3d at 1181.

¹³³ See, e.g., *Sherbrooke*, 345 F.3d at 972.

¹³⁴ *Croson*, 488 U.S. at 507 (Richmond considered no alternatives to race-based quota); *Drabik II*, 214 F.3d at 738; *Philadelphia III*, 91 F.3d at 609 (City’s failure to consider race-neutral alternatives was particularly telling); *Webster*, 51 F.Supp.2d at 1380 (for over 20 years County never seriously considered race-neutral remedies); cf. *Aiken*, 37 F.3d at 1164 (failure to consider race-neutral method of promotions suggested a political rather than a remedial purpose).

¹³⁵ See, e.g., *Florida A.G.C. Council, Inc. v. State of Florida*, Case No.: 4:03-CV-59-SPM at 10 (N. Dist. Fla. 2004) (“There is absolutely no evidence in the record to suggest that the Defendants contemplated race-neutral means to accomplish the objectives” of the statute.); *Engineering Contractors*, 122 F.3d at 928.

¹³⁶ See 49 C.F.R. § 26.51.

¹³⁷ *Rowe*, 615 F.3d at 252 (emphasis in the original).

¹³⁸ *Id.*

¹³⁹ See 49 CFR § 26.51.0.

¹⁴⁰ *Croson*, 488 U.S. at 503 n.3; *Webster*, 51 F.Supp.2d at 1380.

must track the utilization of M/WBE firms as a measure of their success in the bidding process, including as subcontractors.¹⁴¹

The requirement that an agency must meet the maximum feasible portion of the goal through race-neutral measures as well as estimate that portion of the goal it predicts will be met through such measures has been central to the holdings that the DBE regulations meet narrow tailoring.¹⁴²

However, strict scrutiny does not require that every race-neutral approach must be implemented and then proven ineffective before race-conscious remedies may be utilized.¹⁴³ While an entity must give good faith consideration to race-neutral alternatives, “strict scrutiny does not require exhaustion of every possible such alternative...however irrational, costly, unreasonable, and unlikely to succeed such alternative might be... [S]ome degree of practicality is subsumed in the exhaustion requirement.”¹⁴⁴

b. Set Targeted Goals

Numerical goals or benchmarks for DBE or M/WBE participation must be substantially related to their availability in the relevant market.¹⁴⁵ For example, the DBE regulations require that the overall goal must be based upon demonstrable evidence of the number of DBEs ready, willing, and able to participate on the recipient’s federally assisted contracts.¹⁴⁶ Similarly, the Fourth Circuit has held that a program that ties its goals to the availability of M/WBEs can be narrowly tailored.

The State has also demonstrated that the Program’s participation goals are related to the percentage of minority subcontractors in the relevant markets in the State. [Citation omitted] The Department has taken concrete steps to ensure that these goals accurately reflect the availability of minority-owned businesses “on a project-by-project basis.”... [T]his goal-setting process does not mechanically require minority participation.¹⁴⁷

¹⁴¹ See, e.g., *Virdi v. DeKalb County School District*, 2005 U.S. App. LEXIS 11203 at n.8 (11th Cir. June 13, 2005).

¹⁴² See, e.g., *Sherbrooke*, 345 F.3d. at 973

¹⁴³ *Grutter*, 529 U.S. at 339.

¹⁴⁴ *Coral Construction*, 941 F.2d at 923.

¹⁴⁵ *Webster*, 51 F.Supp.2d at 1379, 1381 (statistically insignificant disparities are insufficient to support an unexplained goal of 35 percent M/WBE participation in County contracts); see also *Associated Utility Contractors*, 83 F.Supp.2d at 621.

¹⁴⁶ 49 C.F.R. § 26.45.

¹⁴⁷ *Rowe*, 615 F.3d at 253; see also *Associated Utility Contractors of Maryland, Inc. v. Mayor and City Council of Baltimore*, 218 F.Supp.2d 749, 751-52 (D. Md. 2002) (the 2000 ordinance, in contrast to an earlier program struck down as unconstitutional, specifically requires that goals be set on a contract-by-contract and craft-by-craft basis).

One unanswered question is whether goals or benchmarks for overall agency contracting may be set higher than estimates of actual current availability. To freeze the goals at current head counts would set the results of discrimination — depressed M/WBE availability — as the marker of the elimination of discrimination. It therefore should be reasonable for the government to seek to attempt to level the racial and gender playing field by setting targets somewhat higher than current headcount. For example, 49 C.F.R. Part 26 requires recipients to determine the availability of DBEs in their marketplaces absent the presence of discrimination, that is, “but for” discrimination.¹⁴⁸ In upholding the DBE regulations, the Tenth Circuit stated that

because Congress has evidence that the effects of past discrimination have excluded minorities from the construction industry and that the number of available minority subcontractors reflects that discrimination, 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. Absolute proportionality to overall demographics is an unreasonable goal. However, *Croson* does not prohibit setting an aspirational goal above the current percentage of minority-owned businesses that is substantially below the percentage of minority persons in the population as a whole. This aspirational goal is reasonably construed as narrowly tailored to remedy past discrimination that has resulted in homogenous ownership within the industry. It is reasonable to conclude that allocating more than 95% of all federal contracts to enterprises owned by non-minority persons, or more than 90% of federal transportation contracts to enterprises owned by non-minority males, is in and of itself a form of passive participation in discrimination that Congress is entitled to seek to avoid. See *Croson*, 488 U.S. at 492 (Op. of O’Connor, J.).¹⁴⁹

Goal setting, however, is not an absolute science.¹⁵⁰ “Though the underlying estimates may be inexact, the exercise requires the States to focus on establishing realistic goals for DBE participation in the relevant contracting markets. This stands in stark contrast to the program struck down in *Croson*.”¹⁵¹

Goals can be set at various levels of particularity and participation. The DBE regulations require the Department to set an overall DBE goal for its annual, aggregate spending, and that goal cannot be disaggregated by race and gender.¹⁵² NCDOT could disaggregate its target for its state program by race and gender.

¹⁴⁸ 49 C.F.R. § 26.45.

¹⁴⁹ *Adarand VII*, 228 F.3d at 1181 (emphasis in the original).

¹⁵⁰ In upholding New Jersey Transit’s DBE program, the court held that “Plaintiffs have failed to provide evidence of another, more perfect, method” of goal setting. *GEOD Corp. v. New Jersey Transit Corp.*, 2009 U.S. Dist. LEXIS 74120, at *20 (D. N.J. 2009).

¹⁵¹ *Sherbrooke*, 345 F.3d. at 972.

¹⁵² 49 C.F.R. §26.51(e)(4).

It is settled case law that goals for a particular solicitation should reflect the particulars of the contract, not reiterate annual aggregate targets. Contract specific goals must be based upon availability of D/M/WBEs to perform the anticipated scopes— including the work estimated to be performed by the prime firm— of the individual contract. Not only is contract goal setting legally mandated,¹⁵³ but this approach also reduces the need to conduct good faith efforts reviews as well as the temptation to create “front” companies and sham participation to meet unrealistic contract goals. While more labor intensive than defaulting to the annual, overall goals, there is no option to eschew narrowly tailoring program implementation because to do so would be more burdensome.

c. Ensure Flexibility of Goals and Requirements

It is imperative that remedies not operate as fixed quotas.¹⁵⁴ A contracting affirmative action program must provide for contract awards to firms who fail to meet the contract goals but make good faith efforts to do so.¹⁵⁵ Further, firms that meet the goals cannot be favored over those who made good faith efforts. In *Croson*, the Court refers approvingly to the contract-by-contract waivers used in the USDOT’s DBE program.¹⁵⁶ This feature has been central to the holding that the DBE program meets the narrow tailoring requirement.¹⁵⁷

In the challenge to NCDOT’s M/WBE program, the program’s flexibility was a key factor in the court’s holding that it met the narrow tailoring requirement.

[T]he flexibility of the statutory scheme is also a significant indicator of narrow tailoring. The Program contemplates a waiver of project-specific goals when prime contractors make good faith efforts to meet those goals. [Citation omitted] Good faith efforts essentially require only that the prime contractor solicit and consider bids from minorities. 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. Moreover, prime contractors can bank any excess minority participation for use against future goals over the following two years.¹⁵⁸

¹⁵³ See *Sherbrooke*, 345 F.3d at 972; *Coral Construction*, 941 F.2d at 924.

¹⁵⁴ See 49 C.F.R 26.43 (quotas are not permitted and setaside contracts may be used only in limited and extreme circumstances “when no other method could be reasonably expected to redress egregious instances of discrimination”).

¹⁵⁵ See, e.g., *BAGC v. Chicago*, 298 F. Supp.2d at 740 (“Waivers are rarely or never granted....The City program is a rigid numerical quota...formulistic percentages cannot survive strict scrutiny.”).

¹⁵⁶ 488 U.S. at 508.

¹⁵⁷ See, e.g., *Sherbrooke*, 345 F.3d. at 972.

¹⁵⁸ *Rowe*, 615 F.3d at 253-254.

d. Review Program Eligibility Over-Inclusiveness and Under-Inclusiveness of Beneficiaries

The over- or under-inclusiveness of those persons to be included in the Department's M/WBE program is an additional consideration, and goes to whether the remedies truly target the evil identified. The "fit" between the problem and the remedy manifests in two ways: which groups to include and how to define those groups, and which persons will be eligible to be included within those groups.

The groups eligible to benefit from the remedies must be based upon the evidence.¹⁵⁹ The "random inclusion" of ethnic or racial groups that may never have experienced discrimination in the entity's market area may indicate impermissible "racial politics."¹⁶⁰ In striking down Cook County, Illinois' program, the Seventh Circuit Court of Appeals remarked that a "state or local government that has discriminated just against blacks may not by way of remedy discriminate in favor of blacks and Asian-Americans and women."¹⁶¹ However, at least one court has held some quantum of evidence of discrimination for each group is sufficient; *Croson* does not require that each group included in the ordinance suffer equally from discrimination.¹⁶² Therefore, remedies should be limited to those firms that have suffered actual harm in the market area.¹⁶³

The policy question of the level of specificity at which to define beneficiaries must be addressed. Approaches range from a single M/WBE or DBE goal that includes all racial and ethnic minorities and nonminority women,¹⁶⁴ to separate goals for each minority group and women.¹⁶⁵ It should be noted, however, that the State of Ohio's Program was specifically faulted for lumping together all "minorities," with the court questioning the legitimacy of forcing African American contractors to share relief with recent Asian immigrants.¹⁶⁶

¹⁵⁹ *Contractors Association*, 6 F.3d at 1007-1008 (strict scrutiny requires data for each minority group; data was insufficient to include Hispanics, Asians or Pacific Islanders or Native Americans).

¹⁶⁰ *Webster*, 51 F.Supp.2d at 1380-1381.

¹⁶¹ *Builders Association of Greater Chicago v. County of Cook*, 256 F.3d 642, 646 (7th Cir. 2001).

¹⁶² *Concrete Work III*, 321 F.3d at 971 (Denver introduced evidence of bias against each group; that is sufficient).

¹⁶³ *Rowe*, 615 F.3d at 254 ("[T]he statute contemplates participation goals only for those groups shown to have suffered discrimination. As such, North Carolina's statute differs from measures that have failed narrow tailoring for overinclusiveness.").

¹⁶⁴ See 49 C.F.R. §26.45(h) (overall goal must not be subdivided into group-specific goals).

¹⁶⁵ See *Engineering Contractors II*, 122 F.3d at 900 (separate goals for Blacks, Hispanics and women).

¹⁶⁶ *Associated General Contractors of Ohio v. Drabik*, 214 F.3d 730, 737 (6th Cir. 2000) ("*Drabik II*"); see also *Western States*, 407 F.3d at 998 ("We have previously expressed similar concerns about the haphazard inclusion of minority groups in affirmative action programs ostensibly designed to remedy the effects of discrimination.").

A state of local program should consider adopting the DBE Program's limitation to persons who are socially and economical disadvantaged, as opposed to membership in a group standing alone, as these criteria have been key to its constitutionality. The rebuttable presumptions of social and economic disadvantage, including the requirement that the disadvantaged owner's personal net worth not exceed a certain ceiling and that the firm must meet the Small Business Administration's size definitions for its industry, have been central to the courts' holdings that Part 26 is narrowly tailored.¹⁶⁷ "[W]ealthy minority owners and wealthy minority-owned firms are excluded, and certification is available to persons who are not presumptively [socially] disadvantaged but can demonstrate actual social and economic disadvantage. Thus, race is made relevant in the program, but it is not a determinative factor."¹⁶⁸ Further, anyone can challenge the disadvantaged status of any firm.¹⁶⁹

e. Evaluate the Burden on Third Parties

Failure to make "neutral" changes to contracting and procurement policies and procedures that disadvantage M/WBEs and other small businesses may result in a finding that the program unduly burdens non-M/WBEs.¹⁷⁰ The burden of compliance need not be placed only upon those firms directly responsible for the discrimination. "Innocent" parties can be made to share some of the burden of the remedy for eradicating racial discrimination.¹⁷¹ The proper focus is whether the burden on third parties is "too intrusive" or "unacceptable."

Burdens must be proven, and cannot constitute mere speculation by a plaintiff.¹⁷² "Implementation of the race-conscious contracting goals for which TEA-21 provides will inevitably result in bids submitted by non-DBE firms being rejected in favor of higher bids from DBEs. Although this places a very real burden on non-DBE firms, this fact alone does not invalidate TEA-21. If it did, all affirmative action programs would be unconstitutional because of the burden upon non-minorities."¹⁷³

¹⁶⁷ *Sherbrooke*, 345 F.3d at 973; see also *Grutter*, 539 U.S. at 341; *Adarand VII*, 228 F.3d at 1183-1184 (personal net worth limit is element of narrow tailoring); cf. *Associated General Contractors v. City of New Haven*, 791 F.Supp. 941, 948 (D. Conn. 1992), *vacated on other grounds*, 41 F.3d 62 (2nd Cir. 1992) (definition of "disadvantage" was vague and unrelated to goal).

¹⁶⁸ *Id.* at 973.

¹⁶⁹ 49 C.F.R. §26.87.

¹⁷⁰ See *Engineering Contractors Assoc. of South Florida, Inc. v. Metropolitan Dade County*, 943 F.Supp. 1546, 1581-1582 (S.D. Fla. 1996) (County chose not to change its procurement system).

¹⁷¹ *Concrete Works IV*, 321 F.3d at 973; *Wygant*, 476 U.S. at 280-281; *Adarand VII*, 228 F.3 at 1183 ("While there appears to be no serious burden on prime contractors, who are obviously compensated for any additional burden occasioned by the employment of DBE subcontractors, at the margin, some non-DBE subcontractors such as *Adarand* will be deprived of business opportunities"); cf. *Northern Contracting II*, at *5 ("Plaintiff has presented little evidence that [sic] has suffered anything more than minimal revenue losses due to the program.").

¹⁷² See, e.g., *Rowe*, 615 F.3d at 254 (prime bidder had no need for additional employees to perform program compliance and need not subcontract work it can self-perform).

¹⁷³ *Western States*, 407 F.3d at 995.

Narrow tailoring permits certified firms acting as prime contractors to count their self-performance towards meeting contract goals. There is no requirement that a program be limited only to the subcontracting portions of contracts, and numerous decisions and studies have found that discrimination operates against D/M/WBE prime vendors. For example, the trial court in upholding the Illinois DOT's DBE program explicitly recognized that barriers to subcontracting opportunities affect the ability of DBEs also to compete for prime work on a fair basis.

This requirement that goals be applied to the value of the entire contract, not merely the subcontracted portion(s), is not altered by the fact that prime contracts are, by law, awarded to the lowest bidder. While it is true that prime contracts are awarded in a race- and gender-neutral manner, the Regulations nevertheless mandate application of goals based on the value of the entire contract. Strong policy reasons support this approach. Although laws mandating award of prime contracts to the lowest bidder remove concerns regarding direct discrimination at the level of prime contracts, the indirect effects of discrimination may linger. The ability of DBEs to compete successfully for prime contracts may be indirectly affected by discrimination in the subcontracting market, or in the bonding and financing markets. Such discrimination is particularly burdensome in the construction industry, a highly competitive industry with tight profit margins, considerable hazards, and strict bonding and insurance requirements.¹⁷⁴

The DBE program regulations recognize these facts and therefore provide remedial benefits not only to firms acting as subcontractors on a project,¹⁷⁵ but also to DBEs seeking prime work.¹⁷⁶ Moreover, utilization of D/M/WBEs as prime firms reduces the need to set contract goals, thereby meeting the test that the agency use race-neutral measures to the maximum feasible extent.

f. Regularly Review the Program

NCDOT should continue to conduct regular reviews of the M/WBE program. Race-based programs must have duration limits and “not last longer than the discriminatory effects it is designed to eliminate.”¹⁷⁷

The absence of a sunset clause and lack of review have been factors in programs' being held to be unconstitutional. For example, the City of Chicago's M/WBE

¹⁷⁴ *Northern Contracting II*, 2005 U.S. Dist. LEXIS 19868 at 74.

¹⁷⁵ 49 C.F.R. § 26.45(a)(1).

¹⁷⁶ 49 C.F.R. § 26.53(g) (“In determining whether a DBE bidder/offeror for a prime contract has met the contractor goal, count the work the DBE has committed to perform with its own forces as well as the work that it has committed to be performed by DBE subcontractors and suppliers.”).

¹⁷⁷ *Adarand III*, 515 U.S. at 238.

Program was no longer narrowly tailored because it was based on 14-year-old information, which while it supported the program adopted in 1990, no longer was sufficient standing alone to justify the City's efforts in 2004.¹⁷⁸ Fourteen year-old data were also insufficient to support the City of Columbus, Ohio's program.¹⁷⁹

In contrast, the USDOT DBE Program's periodic review by Congress has been repeatedly held to provide adequate durational limits.¹⁸⁰ Similarly, "two facts [were] particularly compelling in establishing that [North Carolina's M/WBE program] was narrowly tailored: the statute's provisions (1) setting a specific expiration date and (2) requiring a new disparity study every 5 years."¹⁸¹

The legal test is the most recent available data.¹⁸² How old is too old is not definitively answered, but NCDOT would be wise to analyze data at least once every five or six years.

¹⁷⁸ *BAGC v. Chicago*, 298 F.Supp.2d at 739.

¹⁷⁹ *Brunet v. City of Columbus*, 1 F.3d 390, 409 (6th Cir. 1993) (fourteen-year-old evidence of discrimination "too remote to support a compelling governmental interest."); see also *AGC v. Drabik*, 50 F.Supp.2d at 747, 750 ("A program of race-based benefits cannot be supported by evidence of discrimination which is now over twenty years old.... The state conceded that it had no additional evidence of discrimination against minority contractors, and admitted that during the nearly two decades the Act has been in effect, it has made no effort to determine whether there is a continuing need for a race-based remedy.");

¹⁸⁰ See *Western States*, 407 F.3d at 995.

¹⁸¹ *Rowe*, 615 F.3d at 253.

¹⁸² *Rothe*, 545 F.3d at 1038-1039.

III. North Carolina Department of Transportation’s Disadvantaged Business Enterprise and Minority- and Women-Owned Business Enterprise Programs

This Chapter describes NCDOT’s Disadvantaged Business Enterprise Program for federal-aid contracts, and its Minority- and Women-Owned Business Enterprise Program for state-funded contracts, as well as various race-neutral measures.¹⁸³

A. Disadvantaged Business Enterprise Program

As a recipient of US Department of Transportation (“USDOT”) funds, NCDOT is required as a condition of receipt to implement a Disadvantaged Business Enterprise (DBE) program in compliance with 49 C.F.R. Part 26.¹⁸⁴ In brief summary, NCDOT must:

- Keep and report various data to USDOT, including the utilization of DBEs on its federal-aid contracts and create a bidders list of all firms bidding to NCDOT as prime contractors and firms bidding to those prime contractors as subcontractors.¹⁸⁵
- Adopt a non-discrimination policy statement.¹⁸⁶
- Appoint a DBE Liaison Officer, with substantial responsibilities and direct reporting to the chief executive office of the agency.¹⁸⁷
- Make efforts to utilize DBE financial institutions.¹⁸⁸
- Adopt prompt payment mechanism for its prime contractors and for the prompt payment of subcontractors by prime contractors.¹⁸⁹
- Create and maintain a DBE directory.¹⁹⁰
- Address possible overconcentration of DBEs in certain types of work.¹⁹¹
- Monitor the performance of its subrecipients.¹⁹²
- Include elements to assist small businesses, such as unbundling contracts.¹⁹³

NCDOT’s current triennial DBE goal is 14.7 percent. This goal has been approved by the Federal Highway Administration. NCDOT has formed a DBE Goal Consultation

¹⁸³ Changes have been made to the programs since the research for this Study was conducted.

¹⁸⁴ 49 C.F.R. §§ 26.3 and 26.21.

¹⁸⁵ 49 C.F.R. § 26.11.

¹⁸⁶ 49 C.F.R. § 26.23.

¹⁸⁷ 49 C.F.R. § 26.25.

¹⁸⁸ 49 C.F.R. § 26.27.

¹⁸⁹ 49 C.F.R. § 26.29.

¹⁹⁰ 49 C.F.R. § 26.31.

¹⁹¹ 49 C.F.R. § 26.33.

¹⁹² 49 C.F.R. § 26.37.

¹⁹³ 49 C.F.R. § 26.39.

Committee specifically for the review of the overall goals. External participants include, but are not necessarily limited to, the United Minority Contractors of North Carolina; North Carolina Institute of Minority Economic Development; National Association for the Advancement of Colored People; Association of General Contractors; Association of Consultant Engineers Council; and the North Carolina M/WBE Coordinators' Network.

B. History of the Minority- and Women-Owned Business Enterprise Program

NCODT also implements a race- and gender-conscious program for its State-funded contracts and has conducted two previous disparity studies. The State's current M/WBE program was reenacted in 2009.¹⁹⁴ The statute embodies the State's policy, based on a compelling governmental interest, to encourage and promote participation by M/WBEs in Department contracts for planning, design, preconstruction, construction, alteration, or maintenance of state transportation infrastructure and in the procurement of materials for these projects. It directs the Department to conduct a disparity study at least every five years. The current program is based upon the Study's findings, and is to be consistent as is practicable with the DBE program. NCDOT reports to the Joint Legislative Transportation Oversight Committee annually on the program's results, and following the completion of the Study.

NCDOT has conducted two previous disparity studies. The 2004 Disparity Study¹⁹⁵ found disparities and underutilization of various disadvantaged groups, in a wide variety of types of contracting. MBE/WBE utilization was typically quite low, ranging from 0 – 7.6 percent, depending in the type of contracting and the groups involved. Notably, African-Americans had particularly low rates of participation, compared with availability. M/WBEs contractors mentioned a variety of barriers to fuller participation, including such things as slow payment by prime contractors, pre-qualification requirements, contract size, and short times available to prepare bids. The program based upon this Study was the subject of the litigation in *H.B. Rowe Co. v. Tippett*, 615 F.3d 233, 241 (4th Cir. 2010).

The 2009 Disparity Study,¹⁹⁶ which drew on data from 2004-2008, showed a similar pattern. The Study estimated that M/WBE capacity was 15.1 percent. In contrast, on state-funded transportation projects, total MBE/WBE participation was 9.4 percent, of which only 1.9 percent and 1.7 percent, respectively, could be attributed to race-neutral measures. The overall DBE participation on federally-assisted projects was even lower, at 8 percent, with a similar 1.7 percent being attributable to race-neutral measures. The modest level of race-neutral participation came despite what the

¹⁹⁴ North Carolina General Statutes § 136-28.4, "State policy concerning participation by disadvantaged minority-owned and women-owned businesses in transportation contracts."

¹⁹⁵ "North Carolina Department of Transportation Second Generation Disparity Study," MGT of America, 2004.

¹⁹⁶ "Measuring Business Opportunity: A Disparity Study of NCDOT's State and Federal Programs," Euquant, 2009.

study regarded as a successful race-neutral Small Business Enterprise program. The Study also concluded that M/WBEs grew more slowly than their majority firm counterparts. M/WBE participation on purchase order contracts was particularly problematic. Based on the Study's results, Native-Americans were dropped from the state-funded program as a presumptively disadvantaged group.

Both studies showed statistical disparities adversely affecting all categories of minority- and women-owned contractors (with the exception that the 2004 study found overutilization of nonminority women and Native-Americans in a few subcategories of contracting). While praising the variety of race-neutral measures the state has taken, these measures did not appear to have greatly reduced the disparities in participation, however.

Both studies made a series of recommendations to NCDOT for program improvements. The 2004 Study supported greater emphasis on race-neutral measures, such as an SBE program; promotion of joint ventures among M/WBEs; implementation of a unified certification program among state agencies; focus on a greater diversity among types of M/WBEs, beyond trucking and hauling; greater emphasis on capital access and bonding programs; and the use better outcome measures by the NCDOT Office of Civil Rights.

The 2009 Study recommended expansion of the SBE program; monitoring the effectiveness of and improving the coordination among other race-neutral programs; better data collection on M/WBE attainments; and better training for contracting officers, especially those working in the purchase order contracting program.

C. Program Administration

The implementation of the DBE and M/WBE programs is spread across various units. For purposes of day-to-day operations, the programs are treated similarly. We therefore refer to "DBEs," unless there is a difference between the programs.

1. Staff Responsibilities

a. Contractual Services

This unit has the following responsibilities:

- Certification of DBEs, MBEs, WBEs and for Small Professional Service Firms ("SPSFs") and Small Business Enterprises ("SBEs").
- Prequalification of all levels of construction and maintenance contractors as well as professional services firms.
- Drafting reports related to the programs.
- Maintaining the DBE Program Plan that is submitted to USDOT.
- Developing changes to DBE and M/WBE contract Special Provisions.
- Developing the triennial goals for the DBE program.

- Maintaining the Directory of Transportation Firms. The Directory provides real time information on firms doing business with the Department and firms certified through the North Carolina Unified Certification Program.

b. Business Opportunity and Workforce Development

This unit administers supportive services to minority, women and small businesses to accelerate their success in the transportation industry; provides technical training such as Entrepreneur Development Programs Training and the Executive Management Program for Design and Construction; and conducts an annual conference for DBEs.

c. Office of the Inspector General

This unit conducts compliance reviews on prime contractors and DBEs; ensures that DBEs perform a commercially useful function, checks payrolls, etc.; and shares its results with other office for information and action.

d. Division Offices and Construction Units

This unit conducts monitoring of DBEs in the field.

2. Contract Goal Mechanisms

The Contractual Services Unit of the Technical Services Division has the delegated authority for the administration and implementation of contract goal compliance. The provisions of Part 26 are applied to all contracts, regardless of funding source. If the DBE goal is greater than zero, the contractor must “exercise all necessary and reasonable steps to ensure that DBEs participate in at least the percent of the contract” set as the DBE goal. If the DBE goal is zero, the contractor must make an effort to recruit and use DBEs during performance.

At the time of bid, bidders must submit all DBE participation that they anticipate to use during the performance of the contract. Only those firms identified to meet the goal will be considered committed, even though the listing must include both committed and any additional DBE subcontractors. Bidders who are certified are permitted to count their own participation towards the goal for which they qualify. Firms must be certified at the time of bid opening to be counted towards meeting the goal at bid time.

The bidder must submit a Letter of Intent documenting the commitment to each DBE used to meet the contract goal. Documentation is due no later than the sixth calendar day following the opening of the bids.

If the bidder fails to meet the goal, it must submit evidence of its good faith efforts to do so by no later than noon on the sixth calendar day following the bid opening. NCDOT applies the good faith efforts criteria of Part 26 to contracts with DBE goals as well as state-funded contracts with MBE and WBE goals.

A Subcontractor Approval Form must be submitted for all work that is to be performed by a DBE subcontractor. The Department may require copies of the actual subcontract agreement.

The Secretary of Transportation appoints a DBE Goal Compliance Appeals Committee to be responsible for administrative reconsideration. The Deputy Secretary for Administration and Business Development, State Highway Administrator, and Technical Services Administrator serve as members of the DBE Goal Compliance Appeals Committee. A contractor may appeal the determination of the Goal Compliance Committee that it failed to make good faith efforts. If a contractor wishes to appeal the determination made by the Committee, it must provide written notification to the State Contractual Services Engineer. The appeal shall be made within two business days of notification of the determination that it did not perform a Good Faith Effort. The State Contractor Utilization Engineer will notify the Contractor verbally and in writing. Notification will be made the same day as the Goal Compliance Committee meeting.

NCDOT requires the contractor for a design-build project to make good faith efforts to include DBE subcontractors, consultants, suppliers, and service providers on its design-build team. The contractor is also to make every reasonable effort to subcontract work to DBEs through good faith negotiations and/or solicitations prior to the opening of bids. Furthermore, during the term of the contract, the master contractor must continue to make good faith efforts to ensure that DBEs have maximum opportunity to successfully perform on the contract, and that the DBE goal is met. The Department requires the master contractor to indicate the amount of work it intends to subcontract to DBEs with its bid proposal. If the master contractor does not indicate enough intended participation to meet the design-build goal, then it must show that it made good faith efforts to do so.

3. "Banking" Credit towards Meeting MBE and WBE Goals

NCDOT has had a unique element of its program for state-funded contracts awarded through the Central Division for several years. Prime bidders may "bank" credit towards meeting the contract goals on future bids where they are unable to meet the goals.

If the bid of the lowest responsive bidder exceeds \$500,000 and if the committed MBE/WBE participation submitted by Letter of Intent exceeds the algebraic sum of the MBE or WBE goal by \$1,000 or more, the excess will be placed on deposit by the Department for future use by the bidder. Separate accounts will be maintained for MBE and WBE participation and these may accumulate for a period not to exceed 24 months.

When the apparent lowest responsive bidder fails to submit sufficient participation by MBE or WBE firms to meet the contract goal, as part of the good faith effort, the Department will consider allowing the bidder to withdraw funds to meet the MBE

goal or the WBE goal as long as there are adequate funds available from the bidder's MBE or WBE bank account.

4. Monitoring and Enforcement Mechanisms

The Department's Office of Inspector General (OIG) has the delegated authority for the administration and implementation of DBE Compliance. The Contractual Services Unit of the Technical Services Division has the delegated authority for the administration and implementation of contract monitoring and enforcement to verify that the work committed to DBEs at contract award is actually performed by the DBEs.

a. Commercially Useful Function Determinations

To meet the monitoring and enforcement mechanisms to ensure compliance with 49 C.F.R. Part 26, NCDOT requires written commercially useful function verification via a form that will be filled out for each contract and DBE performing work towards the contract goal.

When using transportation services (*i.e.*, hauling) to meet the contract commitment, the contractor must submit a proposed trucking plan prior to beginning construction on the project. The plan must include the names of all trucking firms proposed for use, their certification type(s), the number of trucks owned by the firm, the individual truck identification numbers, and the line item(s) being performed. In addition, the DBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract, and there cannot be a contrived arrangement for the purpose of meeting DBE goals and the DBE must itself own and operate at least one fully licensed, insured, and operational truck used on the contract. The DBE receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures, and operates using drivers it employs. The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE and receives credit for the total value of the transportation services the lessee DBE provides on the contract. The DBE may also lease trucks from a non-DBE, including an owner-operator, but credit for the total value of transportation services provided by non-DBE lessees cannot exceed the value of transportation services provided by DBE-owned trucks on the contract. Additional participation by non-DBE lessees receives credit only for the fee or commission it receives as a result of the lease arrangement.

b. Substitutions of Certified Firms During Contract Performance

All requests for replacement of a committed DBE firm shall be submitted to the Engineer for approval on the DBE Replacement Request form. The contractor cannot terminate a committed DBE subcontractor for convenience or perform the work with its own forces or those of an affiliate. Reasonable methods to resolve the performance dispute must be applied. The contractor must demonstrate reasonable efforts to replace a committed DBE that does not perform with another committed DBE. Replacement without approval from the Department is a violation of the contract and may result in disqualification from

bidding for up to 6 months. If the contractor fails to follow this procedure, the contractor may be disqualified from further bidding for a period of up to 6 months.

c. Joint Check Procedures

NCDOT has developed joint check procedures and forms to closely monitor the use of joint checks between non-DBEs and DBEs. The practice is subject to review by the DBE Compliance and Audit Unit within the office of the Inspector General. If the proper procedures are not followed or the Department determines that the arrangement results in a lack of independence for the DBE, no credit for the DBE's participation relating to the material cost will be credited towards the contract goal and the prime firm will have to make up the difference elsewhere on the project.

The Department recognizes that joint checks may be used for a variety of legitimate reasons, such as assisting a subcontractor to establish or increase a line of credit with a material supplier or assuring timely payment for the supplier's items. Joint checks must be available to all subcontractors and exclusive relationships with one DBE should be avoided. To receive credit, the DBE must be performing a commercially useful function, as defined in 49 C.F.R. § 26.55. Further, the use of joint checks must be focused on accomplishing the procurement of materials needed for a particular purpose at a particular time; long term or open-ended arrangements may be the basis for additional scrutiny

While a case-by-case approval is not required, failure to adhere to the policy's conditions may lead to disqualification of DBE participation or adversely affect a contractor's bidding status.

The Joint Check Notification Form must be fully completed and submitted either with the DBE Subcontractor Request form or within 5 business days after the transaction with the third party. The second party (usually the prime contractor) acts solely as a guarantor.

The DBE must release the check to the supplier. The prime contractor must submit documentation to the Contract Administrator showing that the funds used to pay the supplier came from the DBE's own funds.

d. Contract Retention Policy

NCDOT will require prime contractors to maintain records and documents of payments to DBEs for three years following the performance of the contract.

D. Outreach and Communication

NCDOT works with several agencies and organizations to conduct outreach to encourage potentially eligible firms to become DBE and M/WBE certified. Partners have included the North Carolina Institute of Minority Economic Development; the

North Carolina Indian Economic Development Institute; and the Hispanic Contractors Association of the Carolinas.

The Department conducts outreach to current and potential DBEs through a variety of avenues. These include trade shows; conferences; vendor fairs; and on-on-one efforts and counseling. Additional focus is placed on efforts in those geographic areas of the state, such as the east and far west regions of North Carolina, where DBE participation has historically been lower.

E. NCDOT Business Development and Technical Assistance Programs

NCDOT administers the Business Opportunity and Workforce Development (BOWD) Program. This supportive services initiative is a national leader in comprehensive business development efforts to increase the participation and competitiveness of DBEs in the transportation industry. The program has several elements.

1. DBE Supportive Services

The DBE Supportive Services (“DBE/SS”) Plan provides business development and technical training to certified DBEs. NCDOT uses DBE/SS funds to offer a wide-variety of training classes, one-on-one technical assistance, and networking opportunities to minority- and women-owned firms. Offerings include access to the North Carolina Department of Commerce’s Business Link counselors and technical and business contract training through a partnership with North Carolina State University’s School of Engineering.

2. Business Development Program

The BOWD Program also administers a Business Development Program (“BDP”) for DBEs that request intensive business development assistance, and are approved by the BOWD Director for participation in the BDP. The components of the BDP are as follows:

- **Program Term:** DBEs participate for three years. However, the firm’s involvement is reviewed annually to determine if it is actively engaged in the business improvement process and actively seeking contracting opportunities on Department projects. Failure to pursue these objectives then the firm’s participation in the program is terminated.
- **Business Assessment:** All DBEs participating are required to complete a business assessment with the assistance of a DBE/SS consultant. This assessment determines the firm’s goals and objectives, market potential, and strengths and weaknesses. The consultant then uses this information to determine a contracting forecast for the upcoming year, including potential NCDOT projects that are opportunities for the firm.
- **Evaluation:** After completion of the assessment process, each BDP participant is evaluated to determine the firm’s stage of development. DBE participants are classified as Tier I (early development), Tier II (emerging), or Tier III (advanced). The firms tier

evaluation determines the types of development services provided during the program. It is expected that firms will move through each tier during their participation in the program.

- Annual Review: The BOWD Director annually reviews the participation of each DBE to determine if the firm will continue to receive services in the upcoming year. The review is based on the DBE firm's commitment to reaching the business development goal and objectives determined in the business assessment phase.
- Program Completion: A BDP participant is graduated from the program when it reaches all of the goals and objectives determined in the assessment phase. However, the firm may continue in the program if the BOWD Director and the DBE firm agree that further business development is needed to improve the firm's business operations. The BOWD Director reviews the firm's performance to-date in the program, the total value of services provided, and the needs of other DBEs before deciding to continue the firm's participation in the BDP.

3. DBE Boot Camp

In 2013, the Department conducted a "boot camp" for DBEs, which took firms through the basics of how to do business with NCDOT; bidding and estimating; invoicing requirements; a review of other services; and additional factors necessary to meet the Department's requirements.

4. Project Legacy

Project Legacy is a business capacity development program launched in 2009 that nurtures sustainable companies and assists in implementing strategic operational plans, developing mentor/protégé relationships with prime contractors, and executing an action plan to increase the scale of each participating firm. Throughout Project Legacy, participating DBEs receive ongoing support and assistance in the areas of operations/human resources; finance; management; marketing; general entrepreneurship; and strategic planning. Examples of support include increasing bonding limits, securing bank financing, creating employee development and retention programs, and improving financial performance. The Legal Education and Development program also is available to provide legal counseling and representation and other services such as contract reviews and consulting.

Project Legacy was designed to address the following challenges faced by NCDOT:

- Increased need for diverse firms with a wider-range of capabilities (bridge, railroad, design/build).
- Increased need for price competitive DBEs.
- Increased need for higher capacity DBEs.
- Increased need for collaboration and partnering.
- Increased need for successful DBEs.

Key program objectives include business growth; increased firm revenues, increased profitability; and successful bid and completion of at least one Department project.

There are 6 steps in the Program:

1. Program selection.
2. Orientation Program.
3. Meetings with the Legacy Business Coach.
4. Quarterly growth and development meetings.
5. Identification of Business Development Projects.
6. Annual Business/Performance Reviews.

From 2009 through 2011, 18 firms participated. Sales rose from approximately \$43 million to \$62 million, representing approximately 42% growth.

F. Race-Neutral Programs

1. Small Business Enterprise Program

The SBE Program is a race-neutral program established in 1993 to provide contract opportunities by which small firms will be able to compete against others that are comparably positioned in their industries and markets.¹⁹⁷ Participation is available exclusively to those firms that meet the program standards without regard to the race, ethnicity, or gender of the owner. This program provides smaller businesses the opportunity to participate in Department contracts if they meet the eligibility standards. In 2009, the Secretary of Transportation expanded the SBE program to include all the modes of transportation above and beyond highway projects. The Department has identified key positions in the Contractual Services Unit and Business Opportunity and Workforce Development Unit to work with small firms to get certified and expand their knowledge of working with the NCDOT.

¹⁹⁷ The SBE program was created by G.S. 136-28.10 Highway Fund and Highway Trust Fund Small Project Bidding. It reads as follows:

- (a) Notwithstanding the provisions of G.S. 136-28.4(b), for Highway Fund or Highway Trust Fund construction and repair projects of five hundred thousand dollars (\$500,000) or less, and maintenance projects of five hundred thousand dollars (\$500,000) or less per year, the Board of Transportation may, after soliciting at least three informal bids in writing from Small Business Enterprises, award contracts to the lowest responsible bidder. The Department of Transportation may identify projects likely to attract increased participation by Small Business Enterprises, and restrict the solicitation and award to those bidders. The Board of Transportation may delegate full authority to award contracts, adopt necessary rules, and administer the provisions of this section to the Secretary of Transportation.
- (b) The letting of contracts under this section is not subject to any of the provisions of G.S. 136-28.1 relating to the letting of contracts. The Department may waive the bonding requirements of Chapter 44A of the General Statutes and the licensing requirements of Chapter 87 for contracts awarded under this section.
- (c) The Secretary of Transportation shall report quarterly to the Joint Legislative Transportation Oversight Committee on the implementation of this section. (1993, c. 561, s. 65; 1999-25, s.1; 2009-266, s.2.)

Several requirements are waived or relaxed for contracts procured pursuant to the SBE program. These include:

- A General Contractor's license (with a few exceptions for specialized services).
- Surety bonding (with a few exceptions where there may be a pressing or urgent need to complete a project quickly or where there is a possible need for the use of subcontractors). The current bonding limit is \$500,000.
- Prime contractor prequalification.

Only those SBEs with current SBE certification may submit a bid on a project advertised for SBEs unless there is an exception in the advertisement of the project.

Typical work that may be let under the SBE Program includes, but is not limited to: grubbing, clearing and grading; hauling stone and other materials; erosion control; paint striping; drainage (pipe, curb and gutter, catch basin, etc.); signal installation; landscape planting; fencing; guardrail; bus stop modifications and repair; structural component parts of ferries (*i.e.*, passenger lounges, galleys, crews quarters, pilot houses, restrooms); sub-component parts of ferries (*i.e.*, ladders, stairways, elevator shafts, stanchions, handrails, various foundations for both propulsion and other related machinery); and renovating of ferries including tugs and barges.

Not all projects under \$500,000 will be let as SBE projects. Projects selected for advertisement to SBEs are based generally on the following criteria:

- The type of work
- The location of the project
- The size of the project
- The estimated cost of the project
- The simplicity of the project
- The low risk to traffic or the public
- Work that NCDOT does not do in-house
- The availability of SBE's to bid on the work

NCDOT reviews each project on a case-by-case basis and each Division Engineer (*i.e.*, Highways, Transit, Ferry, Rail, Aviation, Bike and Pedestrian) will make a determination as to whether or not the project is suitable for the SBE program.

The Department maintains an electronic directory identifying all firms eligible to participate as an SBE.

Any small business established for profit, and that meets the program standards is eligible to participate. A small firm must meet the following standards to qualify for SBE certification:

- Size: The business may not have an annual net income of more than \$1,500,000, after “Cost of Goods Sold” is deducted. Contract Labor or other costs of doing business that are not included in the final cost of goods sold figure cannot be deducted to reduce the firm’s gross receipts.
- Independence: The firm must be independent as indicated by the absence of control or influence of a non-qualifying firm. The firm must be free of such items as shared personnel, facilities, equipment, financial or other resources; and affiliation, including common ownership, common management, and contractual relationships with non-qualifying firms as well as current SBEs. Possessing multiple SBE firms under one company name (*i.e.*, “spin off” companies) with shared management, personnel, facilities, equipment, financial or other resources is prohibited.
- Integrity: The Department will consider whether a firm has exhibited a pattern of conduct indicating its involvement in attempts to evade or subvert the intent or requirements of the SBE program.
- Existing For-Profit Business: The firm shall be a *bona fide* existing business that performs work for the purpose of making a profit. A newly formed firm may be certified. Not-for-profit organizations are not eligible to be certified as SBEs.

SBE firms and firms seeking SBE certification must cooperate fully with the Department’s requests for information, and failure or refusal to provide such information may result in denial or removal of certification. Firms that are found ineligible for participation, or have otherwise been prohibited from participation, may apply for certification after the disqualifying condition(s) cease to exist. The Department will evaluate the eligibility of a firm on the basis of present circumstances. Firms must submit renewal information on an annual basis.

A third party who has reason to believe that a SBE is not eligible for the SBE status may submit an SBE Eligibility Complaint Form. .

The firm’s SBE certification may be removed for, but not limited to, any of the following reasons:

- Exceeding the gross receipt limit ;
- Failing to cooperate with the Department’s request for information;
- Attempting to evade or subvert the intent of the SBE program;
- Failure to perform a contract in accordance to the *Standard Specifications for Roads and Structures*;
- Submission of fraudulent or falsified information;
- If removed from bidding as a prime or subcontractor on NCDOT projects; or
- As a result of a directive from the Department.

If a firm’s SBE certification is removed, the firm will be notified by letter from the Department stating the reason for the removal, the appeal rights, procedure, and the timeline for a response if the firm feels the removal is unjustified. A firm that has been denied certification or has been decertified may appeal.

Any person who believes the Department has failed to comply with its obligations under the program's guidelines may file a written complaint with the Technical Services Administrator. The complaint must be filed no later than 90 days after the date of the alleged violation or the date on which the SBE learned of a continuing course of conduct in violation of these guidelines. In response to the written request, the Technical Services Administrator may extend the time for filing, specifying in writing the reason why.

2. Small Professional Services Firm Program

The Small Professional Services Firm ("SPSF") program was developed to provide consultant opportunities for firms to compete against other consultants that are comparably positioned in their industries. To be eligible, a firm must meet the following criteria:

- It must be a "small" business, defined by the Small Business Administration standards, 13 C.F.R. Part 121. Receipts are averaged over three years or the number of employee is averaged over each pay period for the last 12 months.
- It must be independent, as indicated by the absence of control or influence of a non-qualifying firm.
- It must have integrity. The Department may consider whether a firm has exhibited a pattern of conduct indicating its involvement in attempts to evade or subvert the program's intent or requirements.
- It must be an existing for-profit business.

A firm certified as a DBE, MBE or WBE automatically qualifies as a SPSF and need not obtain further certification. The firm must be both prequalified to perform the proposed work and certified as a SPSF at the time the letter of intent is submitted.

Each year on the anniversary of its original certification, the SPSF must submit a new application that declares it remains eligible. The decertification procedure provides standardized due process to consider issues such as the firm's gross receipts, failure to cooperate with the Department's request for information, lack of integrity, etc. There is a procedure for third parties to file complaints regarding a firm's eligibility.

There are no contract goals for SPSFs as there are in the DBE and M/WBE programs. Prime consultants are encouraged to use SPSFs but there is no requirement to make specific good faith efforts to do so.

The program was expanded in 2013 to include the procurement method of limiting firms eligible to propose on contracts with a fee less than \$250,000 to SPSFs.

G. Business Owner Interviews: Experiences with the DBE and M/WBE Programs

To explore the operation of the program elements in actual contract opportunities, we interviewed 179 individuals as well as NCDOT staff members about their experiences and solicited their suggestions for changes.

1. Race-Neutral Program Elements
 - a. Access to Information about NCDOT's Contracting Processes, Program Elements and Upcoming Opportunities

In general, construction and design firms were able to access information about upcoming opportunities. Information technology has eased the difficulties of finding invitations for bids or requests for proposals.

Let me praise the DOT website because now you can go to see who the bidders are on every project, the highway lettings for next week.... Now in the archives they have a breakdown of say, certain line items, every line item. And when that was awarded you can go back and look at the history from six months ago and see what your job went for.

You got one stop shopping [on NCDOT's website] for division let, central let, design-build, private consulting.

Others disagreed.

I hate the DOT website. It's the most frustrating website I've ever been on.... You have to go through the whole list to find the items that are in roadway construction.

- b. Contract Size and Specifications

For consulting contracts, the use of the amount of prior experience working together as a team as an evaluation criterion cuts against DBEs and small firms, as well as opportunities for new firms.

How many projects just like this have you worked together? Or list the projects that you've done and show that these team members have worked on those same projects ... encourages that prime to just go to the same firms all the time.

Another barrier to small consulting firms is the requirement that the firm, rather than team members, have all the relevant experience.

If they could word the proposals so that they will allow you to show the expertise of your personnel rather than just the projects the firm has completed, that would make a difference in what I submit on.

Some participants suggested that the Department unbundle contracts, especially those for professional services.

They don't have to make everything so big. They could make it smaller.

You got to unbundle.

The chunks are put out there in such large pieces that unless it can be broken down into smaller chunks. It makes it difficult for a small business to participate.

Some participants stated that encouraging more competition by bringing in smaller firms might save the agency money.

All the projects [for my former local agency] were delivered under what they would have been delivered before, simply by lowering the ceiling to the point where your group that you were trying to attract was able to get bonded.

c. Access to Bonding

Prime contractors and subcontractors alike agree that the ability to obtain surety bonding was crucial to DBEs ability to participate on NCDOT contracts.

A lot of them can't bond.

If we required [bonding], we would have very, almost no DBE participation.

When it comes to DBEs, as a division, we can make decisions [about whether to require a subcontractor to bond] if we know that person or that contractor and our division president can sign off on lower limits.

d. Payment

DBE subcontractors mostly reported that general contractors pay them at about the same speed as other subcontractors. It is difficult for a small firm to finance the costs of doing larger DOT projects.

It's different because we're a small firm.

It's just the process takes too darn long.

South Carolina DOT actually verifies payment every quarter.

Subcontractors especially favored a "quick pay" approach, where the Department processes invoices every two weeks and ensures that the primes promptly remit payments to their subcontractors.

We don't have anyone paying earlier than about 40 days now.

Anything is better than the 40 days and 50 days. And I've had to tell people, some of my contractors, I'm not going to mobilize until I get a check. And then they, somehow, miraculous I get the check.

One prime contractor agreed that more frequent payments would ease cash flow problems for small firms.

The one thing we did find that, that is a possibility. Instead of doing the monthly estimates, doing a bimonthly estimate. That would help.

e. Networking, Outreach Efforts and Supportive Services for DBEs

More outreach and networking events were suggested by DBEs to help to forge relationships with prime firms.

It makes sense when you start talking to somebody, better perspective on something if you know a little bit about them, where they're from, what they're used to dealing with and I think there's some good come out of that.

The DOT may have to put on more meet and greets and sit people down.... But most of the time I go to meet and greets, I mean as soon as they're over people tend to go their different ways. And maybe some one-on-one meet and greets

[The City of Charlotte] encouraged all the M/WBEs to come and most of the primes came too. And that's how I met most of my primes that I work with now.... I went around and introduced myself to all the estimators that I wanted to work with the primes.

Seems like the ones I've been to in the last couple of years have been more on the design-build projects.

A lot of the outreaches that I've been going to they're too large. Because what happens is the GCs are overwhelmed. You only got ten minutes, just enough to give a guy your card and move on.... If it was smaller, you could have some intimate time to where you could talk and he could evaluate your experience and do some small talk.

DBEs have benefited from NCDOT's outreach efforts and would like more events and opportunities for training.

I think they should [do more training and outreach].... I'd like to see some OSHA certified classes down here to get my people OSHA certified. Or flagger training.

If you could help people talk about their own businesses you'd be surprised how fast and how much they will learn.

Project Legacy and the Executive Management Program received high marks.

Project Legacy, some of the conferences they have are absolutely excellent.... Marketing, finance, strategies, strategic intent, networking with some of the major primes and that kind of thing and have also offered us some other services as that. So it's been really, really very good for my company.

We've actually two firms that graduated through [the Project Legacy] program that have been doing ongoing work for us.... That was a very good program, and it needs to be ongoing.

The executive training, that's very good.

Professional services firms felt that the focus is on construction and more outreach is needed for their industries.

Congratulations, you have gone through the process and you're now DBE. Go away, we need to really hone in on construction.... One of the things that I hear is, from the engineers when I go to them is, well we just don't know any DBEs.

How to do business with the DOT [for new professional services firm would be helpful].

Education for DBEs was cited as one way to increase the supply for general contractors.

Just basic [finance education]. Kids don't even know how to balance a checkbook. They use a debit card and they don't even know that they're supposed to keep track of that. So how are they going to run a business and know that you got to keep the money in there?

[A "Contractors' College" for DBEs] was a very good program. We actually utilized two or three subs that came out of that. People that we met and got to know in those meetings.

They need estimating help because if they turn in a bid or an estimate that's way off or not appropriate, then the project won't have enough time to deal with that.

Some large firms suggested that DBEs first be required to go through a separate prequalification program before they can be certified.

They should require an MBE or WBE firm to go through a program to be prequalified.... They ought to be able to prove financially they are well capitalized.

Accreditation [of DBEs should be required].

f. Small Professional Services Firms Program

DBEs did obtain work through the SPSF program.

30 to 40 percent of our work is because we are an [SPSF] firm.... If we no longer can fill that goal, they're going to go to another firm.

However, because there is not the same level of required good faith efforts as there is for the DBE or M/WBE program, it was seen as only partially useful for small firms. SPSF firms stated they were shut out of design-build projects because the large

firms can perform all aspects of design and because there is no goal, they do not use small firms.

There is no requirement to use SPSFs.... NCDOT likes to use, do really big projects. All these big jobs you see they're design-build. They like to roll everything up into a great big package and so the big guys take it, the big firms take it and they don't have anything for the small people.

A large design-build firm representative agreed that there was less enforcement on professional services contracts.

Whether a consultant lists subconsultants, minority or otherwise, when they get a design job or if it's a design/build where it comes through a prime contractor like ourselves, it is much an honor system. And we list the people.

Lack of enforceable commitments to SPSFs was one problem mentioned by several small design firms.

Maybe that SPSF [participation] was the thing that pushed over the decision if it was a close run. They win the job and then the work that the SPSF was supposed to do got scoped out.

It happens to us.

Setting actual goals for SPSF participation was urged by small firms as a way to ensure they get work.

They need to maybe look at establishing some goals for professional services and do better outreach to us.

Without goals [we don't get any DOT work].

I have substantially more work state government wide with Virginia than I do with North Carolina [because Virginia DOT has goals for professional services].

Small firms must prove themselves repeatedly so that NCDOT develops a comfort level with their work.

You're telling someone they have to work with you and they don't really want to.... There's zero tolerance for you to learn. It's not like I'm going to try to help you. You got the job, you better deliver, by gravy, just like [the large firm has] been doing for the last 20 years.... They're not going to hold your hands. You better not ask them where the bathroom is. You better go figure that out because if you do, it's going to be, ah, well, I knew [it], doesn't even know where the bathroom is.... I've experienced that [with prime consultants], too.

Some smaller, White male-owned firms reported they now get work that used to go to DBEs.

In the past, we would call [larger design firms] up and they'd go, I got to meet my goal so I can't use you.... And then as soon as the SPSF kicked in ... the president of the company called and [said] we can use you now. And so for us that has been a great thing.... If you start a Mentor-Protégé Program or you do WBE, DBE, set asides or whatever, my take from that is, well, now I'm disenfranchised.... In the past, we had been left out because we weren't minority- or woman-owned. And we had firms tell us, we cannot use you because [you are not a DBE].... So, we were disadvantaged. And so, now we feel like that we are in a playing field where it is based on your merit not based on woman-owned or minority owned.

Even though there is no SPFS goal, and the program is fully race-neutral, larger design firms sometimes felt compelled to use certified firms to gain a competitive advantage with NCDOT.

We don't know how they grade you on it, whether if you put five percent or ten percent, might not make much difference. And we're probably like everybody else. When we got plenty of work maybe we're going to do a hundred percent of it in house, when we get down to a place where we really got to win a project we're maybe going to ask them, well we better get 15, 20 percent small professional, so we got to do anything we can to get over the hump.

g. Small Business Enterprise program

Obtaining work as a DBE prime contractor was especially difficult to achieve. The Small Business Enterprise program was lauded as one way to increase opportunities.

It's been one of the most successful programs inside of DOT because in my division [as a NCDOT staff person], I graduated several contractors that started out with one and two trucks and they, and did what they had to do, stayed in the program and, and over the course of five, six, seven years actually started doing more than 1½ million dollars a year and actually graduated out. Now again, they had the same problem that I expressed when you graduate out of the SPSF program. Is a lot of that work came to them because it was ... a set aside. And then now they moved up and then some of them did come back and some of them kept on going.

Several small firms stated that the size standards for the SBE program are so low only very small firms qualify, which fails to build capacity

You can't have that small revenues and have all the equipment it takes to go do one of them jobs.

The SBE program I think can be expanded to create more larger DBEs. What I mean is right now if it's \$500,000 for the next contract and 1.5

million dollar total revenues, that's still not going to get you far enough. So, to me a program that went up to say five million dollars, at least three million dollars, that will allow you to do a couple one million dollar road projects. But what we put out as SBE work isn't the jobs that's going to make you a prime contractor.... They're too small. And they're not even that type. So, they aren't small road projects. They'll put out just a miscellaneous concrete contract.

Including SPSF firms in the SBE program approach was strongly supported by many firms.

I think that would be very helpful. Because it would be a race-neutral program and it would be based on the capacity of individuals, not necessarily the capacity of the firm because the firm is not, the firm doesn't do any work. It's the individuals that have the education and the experience that does the work.

When you look at DOT projects and you look at the prequalifications that they list in their advertisements, well you have to ask yourself, well how many, you know, small firms, you know, has all those prequalifications?

[The targeted market element should have] a narrower scope of prequalifications to balance the risk of a certain piece of work to open the door for more minority and women owned firms to get work.

I would love to see that.... We're submitting against the firms that have a hundred employees.

h. Mentor-Protégé Program

DBEs generally supported the concept of mentor-protégé programs.

If I had of had a mentor from day one, it would have helped me.

We don't really have the manpower to do anything larger and if we had an opportunity to work with someone that could help us start the process, that would be excellent.

Some large firms supported the concept of working with DBEs to grow their capacities.

That's still a good idea to have [firm name] or someone to mentor someone for 18 or 24 months or whatever that program might be because this lead [time for major initiatives like bridge replacement] will come again. It's a vicious circle. And then we will have people in the pipeline that are ready to go.

To be successful, a mentor-protégé program has to have incentives for the general contractors.

But there's no advantage at all, as a prime contractor, to get involved in that. If they were really serious about a mentoring program, then let's get

serious about it.... Say "Boy, I could help you out, but you need some new equipment and you need some training, and I'm willing to help you with all that training," but there's got to be something in it for the prime contractor You just can't ask the prime contractor to do it for free.

The program is a good thing ... but they're definitely going to have thou shalt do's and thou shalt not do's [to make it clear what is impermissible help to the DBE].

A prior program was abandoned, reportedly in part because the Great Recession decreased demand drastically and in part because of a lack of interest or initial capacity from DBEs.

We talked to probably half a dozen different small firms. They weren't interested unless we could guarantee them work.... If it's structured correctly [it can work]. If it was just, I don't know, for lack of a better word, just a ride along, that's not going to work. But if it's really structured and it's timely, I absolutely think it would [work].

A lot of the firms that were willing to try weren't sufficiently advanced in their business development process to really understand and take advantage of what was being offered to them. That's one of the reasons that the business opportunity workforce development program was developed by NCDOT because it was a recognition that you've got to give the basic business skill foundations to a lot of the firms.... [But] we're in a different climate now than we were back when we tried that.

i. DBE Certification Standards and Processes

Most minorities and women found NCDOT's certification process pursuant to the Unified Certification Program mandated under 49 C.F.R. Part 26 to be rigorous, but fair and necessary to maintain program integrity. They did feel burdened by the need to seek certification separately from local agencies, applying different eligibility criteria.

A few White males reported that they had tried to move their wives into the position of president and majority owner but were unable to get the firm certified or had to appeal a denial because of a double standard applied to White women.

It is much more difficult for a White woman than any other group.

Double standards.... I'm also thinking of getting a good lawyer and filing a lawsuit.

My wife went through the same thing ... she didn't have another job, it was set up properly. ... They certified her [when we appealed].

Some participants felt it was unfair that White males have to prove they are disadvantaged on an individual basis under the DBE program but Blacks and Hispanics are presumed to suffer race discrimination.

If there's a guy driving a dump truck who owned it, he's Hispanic, how's he discriminated? He works every day.

j. Program Advisory Committee

A NCDOT committee to serve as a forum for DBE issues was welcomed by DBEs, non-DBEs, and agency staff.

That's a great recommendation.

Having a single voice is a step in the right direction.

I do think it's a good idea.

The board advisory would be a good thing, because now we will have a voice. We don't have a voice if we're not up in there and it's going to be the same thing, over and over.

I do [think a regular forum to address issues would be helpful].... we do need to come to the table. Just like this today. NCDOT needs to spearhead that. They know the people. They know the DBEs. They know the contractors. And if you talk it out and you communicate it's going to help to grow the program.

It sounds great on paper but unless the minority community is willing to step up to the plate to do it, it's just another statement on a piece of paper.

You make [goal setting] a part of the conversation in the meetings that you were talking about earlier, everybody would come, no question.

2. Race-Conscious Program Elements

a. Meeting DBE and M/WBE Goals at Contract Award

While not always easy, many larger general contractors reported they are able to meet the goals most of the time.

We very rarely do not meet the goal.

90 percent of the time we meet the goals.

In almost 20 years there's only been two jobs ... that we didn't make the goal. But there's been a couple jobs we weren't able to meet it and we didn't turn it in. Just didn't bid it.

Meeting goals is a challenge for many bidders. There is often a lack of firms that can perform on Department jobs and goals were seen as often unrealistic.

If we felt comfortable and that they're capable of doing the work, more than glad to [use DBEs]. But the experience has been that probably more often than not, sometimes they're not qualified to do the work.

They are certified as being DBE but they're not qualified, all of them.

The DOT does not look at each project and look at the available DBEs to do the work and they don't set a realistic goal to begin with.... For instance, if there's a project that's got a lot of materials like a bridge project, there's not a lot of sub work there yet they'll give a ten percent goal on a million dollar project. That's \$100,000 of DBE sub. That's almost impossible to find. [However, we don't seek waivers of the contract goal often because the Department is] very difficult on good faith efforts..... They really force you to try to go out and get the DBEs. And it ends up going to a lot of the same DBEs, project after project.

When the goal includes calculations that include the cost of materials or the cost of the work that you're going to self-perform, it makes it very difficult to find subcontractors to meet that goal.

Just use some logic and judgment to understand this geographic location. Because that truly does make it difficult.

You're pretty much down to using a DBEs striper, using an asphalt, a DBE hauler to haul your asphalt or your materials. And then what little bit of erosion control is left. And then you're talking about thousands of dollars of liquid asphalt stain, actual machine placement, so the dollars are so driven towards the asphalt type items on a job like that it's tough sometimes to even meet those goals with the trucking and the striping.

There doesn't really seem to be a whole lot of rhyme or reason as to how the goals are set. You'll see one job you'll think it's a reasonable goal, the next job is exactly like that job and it's just way higher.

Once in awhile you have to go out on a limb and use somebody you don't know because there's nobody else. And it usually doesn't work out too well.

Several general contractors offered that the highway business is an extremely rough and competitive industry for all small and new market entrants.

We have had this program for about 30 years and the increase in minority participation is minimal. But, I think that if you compared that increase with all small firms trying to get into the business you would find that it is a tough business to get into. Somewhere along the line, I believe that the whole program needs to be re-vamped. We are asking new businesses to compete on a low bid basis with existing businesses when, for the most part, existing businesses are more efficient and therefore more competitive. It makes it difficult to get started. To make it worse, the business is cyclical due to weather and economic pressures. If you are not an excellent money manager, you probably will not survive highway construction....

There's a lot of barriers to entry in this industry as a whole right now. There's not any kind of stable funding out there. They can just extend their revenue, or highway program to the same revenue level as it was the year before. The regulations get tougher. There's more people out

looking at anybody who's doing the work from the accounting perspective in their business, the field work that they do, the type of equipment that they have, their ability to meet the testing standards that are particular to that type of work.... Construction used to be just good old boy, get the work done, get it built, next job. Now it's just so regulated and so over engineered.... So, it's just harder and harder, more and more regulated. Sustainability now. We have LEEDs, you know, more and more stuff. Makes it harder for people to get in and be successful when they're small.... We have a certain level of insurance that we require and there are several contractors that they're MBE, WBE, but they don't meet our requirements so we can't use them.

Some general contractors believe that most DBEs are not interested in doing work on DOT contracts.

The problem with the whole program is an over-exaggeration ... of the capacity and interest.

Several bidders stated that few DBEs attend their outreach events.

We had two people show up, and this is fairly consistent. So, we need that outreach [from NCDOT].

If we're going to have a networking event, DOT has to be the stimulus for it because they're the one that has the relationship with credible groups.

General contractors said the issue is building relationships.

The good old boy network is really a relationship network.... People have got to reach out to us. We send out a lot of letters ... we run ads. My own personal opinion is they're marginally effective.... What's really effective is making a phone call as a result of one of those letters to the appropriate estimator and talk to them early on.... If there's a bid that's way out in left field, whether it's really high or really low and we don't get it until bid day, we probably don't have time to do anything about it... But if that bid comes in early, we're subject to call that person or that company.... You may not get that first job. You may not get the fifth job, but after you talk to the people, they begin to know you.... Pretty soon they're successful.... We may not call you back right away. Call again. But most of the time you're going to get a response.

You can call it good old boy or whatever you want to. That's the way you get your relationship, is you go at a non-stressful time, when you got a chance to be successful.

We will get back to people. We want to get their quotes. We want to know what you're writing before we turn in a number,

A lack of skills, capital and drive were seen by some general contractors as the major barriers to DBEs' success.

There are very few MBE's who are capable of doing this work. It takes a great deal of capital and a great deal of heart. Both seem to be missing.

DBEs' lack of business savvy was cited by several general contractors as a major reason for their lack of success and inability to perform.

Some of the people that have tried to take advantage of the opportunity didn't really have the business knowledge to operate the businesses and they invariably do not capitalize their businesses. And if you don't capitalize the business you're out of business when you run out of cash. And we've had one heck of a time with all the, the DBEs on payment. They want to be paid. They really want to be paid before they do the work because they don't have any cash.... They're not good enough businesspeople to leave the money in the business. We end up funding their business for them.

They can't budget.

A lot of them just went out of business because they didn't manage their businesses well.

Some of your smaller business ... know how to do the work, the production. But they have no business sense. They don't know their computers. They don't know how to manage a company, and that's where they fail.

They got to understand they got to leave the cash in the business. Too many of them, they get a little cash, next thing you know they got a new car, they got a new house or they just spend the money. They don't leave it in the business.... They're very short-term thinkers.

Many non-DBEs stated that they were indifferent to race or gender; quality was their only concern.

As prime contractors, we don't care what race is the owner of the business as long as they can do the work.... We have to sub out certain portions of the project anyway. Or we want to sub it out. And we don't care who has the business as long as they do a good job and manage their business.

I don't believe that's true [that minority contractors are correct in their opinion that they need the program].

They rejected DBEs' contention that they are only used when there is a goal.

That's not true.

They're the best price, they do the best work, we have relationships with them.

Most successful MBEs and WBEs have work in the private sector as well.... We use MBEs, WBEs, in the private sector just like we use in the public sector.... That's only smart business for us.

Prime firms reported that there are DBEs who do good work and are good business people.

The ones that are solid that we're all using are good business people. They call you, they talk to you. They might not show up at the meeting because they know they're going to get their shot because they've proven themselves.... What's the best way to get business? I know a gentleman who's in trucking. He happens to be a black guy. He's very good. But let me tell you how he started. He had a job. He went all around to a lot of the primes and said, "If I do this and how do I need to do this to do this right? I'm not quitting my job yet because this is not an easy business." Trucking is not a very easy business. But he did that. He kept his job until he built his business. He was a minority from the get-go.... He did get certified and he did get prequalified.... But he did do it the right way. He came and talked to people. If somebody has the means and method to do something, prove it to me or I'm not taking the risk with a company that I'm working with to use somebody [else].

Some non-DBEs regarded DBEs serving as "front" companies— firms that do not perform a commercially useful function or fail to perform the work themselves— as a major problem.

You have those others ... that are kind of taking advantage of the program, where all they want to do was, excuse my language, skim off the top. And let somebody, some non-minority do all the work but they claimed it minority.... And us contractors, we had to use them, because we had no other way to get the [participation].... It defeated the whole purpose of the program.

Every time he bid on a job he had all the trucking bagged because he actually owned a trucking company with his wife and it was her company but we all knew he owned the company.

Many general contractors asserted that it is more expensive to use DBEs.

We oftentimes have to use higher sub prices from DBEs or MBEs and WBEs going in to meet the goal.

We were read our low bidders on a job, and low by about \$300. Had we used quotes other than the low quotes to meet the DBE goal, we would not have been read out as low bidders. Every dollar does count.

It's costing us a lot of money to make our goals. If it was easier, we wouldn't have to spend as much money, but it comes down to we don't have enough pool of qualified subcontractors.

If the sub does not do his work so we've given him say 25 percent of the [design] fee and... [we must] redo it, give it back to them two or three times, before long, you finally just make the changes for them. You still can only get 25 percent of the fee but you've spent more than a hundred

percent.... And it is more management..... There's absolutely no additional compensation because of having a sub and helping meet the goal.

One recommendation was to have a bidder that did not meet the goal provide the additional cost to meet the goal beyond its base bid.

Have the prime contractor turn in a base bid for award purposes, but if they do not make the goal, then turn in an alternate price that makes the goal. We as primes struggle trying to turn in the lowest possible bids, as that is how they are awarded. Often times we have DBE quotes that are higher than non-DBE quotes. With the alternate bid, the DOT could decide if it was worth the extra money to use the DBE. If so, they would award the project to the lowest bidder on base bid, but pay the extra for the prime to use the DBE.

Using DBEs was also seen as more risky.

When we try to meet the goal we assume a greater risk than we'd like.... We pick certain subs to routinely do that sub work for us and we don't go outside that circle very often unless we absolutely have to, to meet that goal.

Most of the time you are taking risk.

A recommendation was for the Department to assume the risk of the bidder's using DBEs.

Have the DOT bond the DBEs. In the existing program, the prime contractor takes all the risk on the project for using DBEs. The purpose of the program is the help DBEs get started, which is risky. Why not have the DOT share the risk?

The bidding process for highway jobs complicates meeting the goals.

We're not just bidding on this one job. Most of the time we're bidding on two and three and four jobs. And so what happens is they come in at the tenth hour and they say, I don't think we're going to make it. And I go, oh yes you are. They make me be pushy.

90 percent of our problems are we get screwball quotes [at the last minute].

Meeting separate goals for MBEs and for WBEs on state-funded contracts was especially challenging.

If it's 5 [percent for MBEs] and 5 [percent for WBEs], just make it 10. Because, if we were to pick this firm to subcontract work, and they are going to do 10 or more percent, but I can only benefit from half of their participation and then have to hire someone else to meet the balance of the goal.

We haven't met an MBE goal in seven years.

We've had difficulty with the split goal on the same project. That's been challenging. If we're trying to meet a goal, I would prefer to see a three or five or ten, whatever the percentage is, for a minority participation and not separate three percent for DBE or two percent for a WBE. That can be challenging.

In our line of work, the MBE's just almost impossible to get. [We do] bridge construction, not highway. So, we have very little trucking. There's very little grading to the job. A small amount of paving.... So, I end up in good faith effort because my MBE is zero.

Everything would be great [if there were a single goal]. Because you can get plenty of DBE stuff. When you start breaking out and giving this percentage for MB and this percentage for WBE, it's tough.... Because of the type of people that do the work. You might have a woman trucker and not be able to find a minority pavement marking guy. But you've got this high percentage for pavement markings and this small percentage for women trucking.

[By contrast,] it's very rare, rare that we can't make those [unitary DBE] goals.

Meeting goals using trucking firms was a special problem because of the brokered nature of the industry. Separate goals for MBEs and for WBEs on state-funded contracts exacerbates this problem. WBEs reported it is very hard for them to meet the separate MBE goal.

We didn't have a problem where we could crossover and I could use [MBEs] to help me meet my goal. Now, the problem is [MBEs are] struggling over here too to meet their goal, we're struggling to meet our goal. But you're also cutting [the MBEs] out of work. When they're not busy I could be utilizing them and vice versa.

The exclusion of Native-American owned firms from the program for state-funded contracts adversely affected prime contractors' ability to meet goals.

There isn't enough qualified minority firms in the western part of the state [where Native Americans are concentrated].

When all of a sudden they were no longer an MBE where it's a split goal, that does affect us being able to get the participation very easily.... I think the Native American would be a big plus, for that part to be back.

Several prime contractors mentioned that they do not commit to participation greater than the goal because they will then be penalized if they do not meet the higher number.

I'm at risk for replacing them. It is a negative for me to give the State of North Carolina more.

Most primes and some subcontractors supported expanding the concept of “banking” credit towards the goals beyond the state-funded contracts let by the Divisions to those let from the Central Office and even to federal-aid jobs.

What we've seen lately is the DOT is much more willing to look at what actually happens in the business process and try to accommodate it. A good example is DOT on a state program does banking. Well, that allows -- that encourages and incentivizes a contractor to use more firms because he knows that he can get a benefit out of it. So, it's to his advantage to do it.

It would be good for the subs.... that would be good for both sides. I mean to me that would be a win-win situation.

Bidders reported that it is extremely burdensome to make good faith efforts to meet goals.

You're basically building your good faith efforts case while you're doing everything else [in case you don't meet the goal].

What I have a problem with is the follow up and depending on who reviews your good faith effort, one phone call isn't enough. Leaving a message does not count as contact. You are supposed to continue to try to reach these people until bid day, until you specifically speak to them. That's not going to happen unless I call truckers at three in the morning.... I have other things that need to get done other than calling DBEs but if we are concerned that we're not going to make [the goal], that we're going to have to do a good faith effort, you can be assured that three days before, I'm doing nothing but that. It is a complete waste of time because there's no return on the investment in that. The people that I'm calling have no interest. Also at some point some onus should be made to be on the DBEs to occasionally attend an outreach meeting. If we're going to have them, they need to come. If we're going to send them information, they need to respond.

It's just a waste of time and money. If we took the money we spend making good faith efforts, we could put a DBE in business. They could stay home and have a, and lead a nice life. We're really spending a lot of money for virtually no results.

As part of our good faith effort, we schedule a time [to meet with DBE about a project]. Me, my engineers, estimator, all the guys. They're ready to sit in there and talk to them. They never show.

For our good faith effort, most of the time we solicit between 60 to 80 contractors. We get quotes from about the same 15.

I have used the DBE list on some occasions when I was bidding as a prime contractor, and got very few responses to the letters I wrote requesting quotes....or responses to voice mail messages. So, I understand the frustration of the prime contractor [even though we are a

DBE who also works as a subcontractor]. A good faith effort should be one call, or one letter and that prime deserves a response. We do that, so the program has worked well for us.

Inconsistent application of the guidelines was mentioned as a serious problem for prime bidders.

There needs to be some guideline on their part where everybody's consistent on what is a good faith effort. That can't be completely open to interpretation. If they sent out certified letters and I didn't, if I was told e-mails are okay.

DBEs are often overwhelmed with hundreds of solicitations, often for work they do not perform or in geographic areas they do not cover.

I probably get, and this is no joke, a hundred to one legitimate request[s] to bid and they come from everywhere.... 99 percent of it is useless stuff. And it always arrives by fax ... I've tried to manage it by calling ... but it's almost impossible. And that really irritates me because that's their good faith effort.

Some prime contractors suggested returning to DBE set-asides as a more direct and efficient method to increase participation.

Sometimes I wonder if set-a-side would not be a better answer to what we are doing now. When the program started, there was an outcry against set-a-sides and the program became a goals program. While DBE participation has increased under the goals program, I believe we are spending way too much time and money for minimal results. The DOT could designate certain work types within projects that would have to be performed by DBEs. One project could have trucking, the next project could have seeding, etc. This way many targeted disciplines could be helped without unfairly hurting any one non-DBE group of contractors.

3. Contract Performance Monitoring and Enforcement

More monitoring of actual utilization of subcontractors was needed, according to some DBEs.

The prompt pay piece is huge and puts folks out of business all the time and I think DOT can do a better job. I think they can monitor that. It should not be a complaint-based process. I shouldn't have to not get paid, go complain to the resident engineer, and make ten phone calls. There's enough technology to know when the prime got paid. And for there a flag to go up ten days later or seven days later and someone be responsible, resident engineer or assistant resident or inspector, to say, have the subs been paid? And verify prime that you've paid your subs.

DOT has a closeout process that requires the prime contractor to send affidavits of what they paid the [subs]....They're getting that information and taking it for face value.

The percent goal is a way to get started. It is not the true measure.

Sometimes DBEs are listed to be used on portions of the project that NCDOT never authorizes.

Both on the sub side in construction and on the engineering side, there may be items of work that are eliminated.... We build a couple hundred little bridge jobs every year, and they may have shoulder drain and sub drain. They put in a contingency for it. They're not even on the plans. We may list a minority for that that's in good faith. If the work takes place, they do the work. Sometimes it may triple if you have a bad condition on the project. But a lot times on a lot of jobs, it's never done.

While it is permitted to substitute a non-performing DBEs after contract award, several primes reported that they rarely seek approval.

We use a DBE and they go out of business halfway through the project, then what do they do? [NCDOT] say[s], go find a substitute. That might be impossible, you know.... Sometimes [you can get a waiver but] ... it's difficult.

The staying on schedule, the quality of the work that's expected, the safety. Safety's a big deal. And when you combine all those factors and you got all three to deal with and you're looking at liquidated damages, which go on your record, and not on the MBE's, then you have to get it done.

[NCDOT will approve a substitution] after you've gone through a whole lot of time and you've wasted a lot of time and hurt the job. You do not have enough suitable replacements who will do it for the same price or even close. And then if it's not the same price, you have to pay more, then it's out of your pocket. The state's not giving you any more money for following the program.... A lot of times there's not that next level of qualified person that you're going to trust to put your company at risk having them do it.

We make sure that the people are qualified to do the work before we list them or we're putting them in there because it is such a high standard to replace.... [It's a] cumbersome process.

Because [the substitution process is] so cumbersome, we're forced at bid time to not use people that we might want to try. So, we don't give them a chance because we don't have any history on them. So, if we put them in the bid we're tied to them. We're actually better off to going with a good faith effort than use them and come back later on and be forced to try and find somebody at a better price. They're low bidder, that's the reason we're wanting to use them so later on down the road we probably can't

find anybody at that price. So, the substitution process is just bulky as heck.

There's a whole lot more willingness to listen nowadays than there was.... Even ten years ago, it was kind of, well here's the program. Have fun. Now, if you have subs that you have issues with there's a lot more willingness to listen and they help you deal with that sub whether it's getting them straightened out or getting them replaced.

One suggestion from general contractors was for the Department to compensate them for having to substitute a non-performing DBE by paying the difference between the original subcontractor's price and the new firm's cost.

If we've got to replace somebody pay us the difference. If we got to get a DBE at a higher price to replace somebody we put in, pay us the difference.

Have the DOT compensate the prime contractor if they were required to replace a non-performing DBE with another DBE at a higher cost. This could help the prime decide to use a DBE when they are not sure of their ability.

A few DBEs reported a counter experience. They had been listed at bid time [it was unclear whether these are NCDOT jobs] but not used.

It's just been times where maybe they've said that they're going to use us, but for whatever reason it didn't go through.... I think that sometimes they do do [the work] in house. And then just needed our name on their goal in the beginning when you have to go through the letter of intent and the beginning process.

They put your name in the job and they show they're going to meet a goal and then after you get the job you don't hear from them again.

People now want to fill their DBE goal so they put us in proposals. We win that proposal but we never get any work.

They self-perform it.

I call it the bait and switch.

H. Conclusion

The interviews strongly suggest that NCDOT implements the DBE Program well within the parameters of 49 C.F.R. Part 26, and the M/WBE program within the confines of strict constitutional scrutiny. Some improvements could be made, including increasing access to information about the Department's processes and upcoming opportunities; reviewing contract sizes and specifications to reduce barriers to the participation of small firms; providing additional supportive services to DBEs and other small firms; increasing networking and outreach efforts; developing a bonding support program; quick pay; expanding the SPSF and SBE programs; explaining the process to establish a bidders good faith efforts to meet the contract

goal; gathering information on the costs of all subcontractor bids to ensure competitiveness and non-discrimination; increasing race-neutral means to provide opportunities for DBEs to perform as prime contractors to reduce contract goals; reviewing and publicizing procedures to substitute non-performing subcontractors.

IV. Utilization, Availability and Disparities for the North Carolina Department of Transportation

A. Contract Data Sources and Sampling Method

We analyzed contract data for state fiscal years 2010 through 2012 for NCDOT's Central Office, Division Offices and subrecipients. The final contract data file for analysis contained a total paid award amount of \$ 3,288,822,784. This file of direct NCDOT contracts was developed through the following steps:

- From the initial pool of 5,523 contracts, we eliminated purchases under \$25,000, cancelled contracts, contracts with other governments, etc.
- From the remaining 5185 contracts, we identified 660 contracts with a total award amount of \$23,663,380 that were between \$25,000 and \$50,000, and therefore had very little likelihood of subcontracting opportunities. These contracts are included in the final file.
- For the remaining 4525 large contracts, we identified a representative sample of 574 contracts with a total award amount of \$4,340,307,872 from which to collect prime and subcontract level contract data. During the process of collecting missing data, we identified 23 contracts that should not have been in the contract universe worth \$496,983,984; these contracts were eliminated for various reasons, including duplicate listings, contracted work had not yet begun or had only just begun, the purchase with another government, etc. Of the pool for collection of 551 contracts worth \$3,843,323,888, we successfully collected data for 420 contracts with initial award amounts worth \$3,356,089,971. This represents 88% of the data in the sample file for data collection.

Collecting data from NCDOT's subrecipients presented special challenges. The initial pool of grantee contracts involved 135 agencies that received 253 grants, for a total of \$99,810,182. 76 grantees responded to our requests for data. We were able to collect data for 165 grants, totaling \$79,461,321, which was 65 percent of the grants and 80 percent of the dollars. Of this dollar pool, 73 grants totaling \$18,523,789 were for operating expenses such as salaries, vehicle purchases, etc.; these were dropped from the pool. The remaining 92 grants were valued at \$60,937,532.45 according to NCDOT records, and actually consisted of 149 separate contracts totaling \$138,938,188. We received data for 113 of these 149 contracts, totaling \$126,465,808.14, which was 76% of the contracts and 91% of the dollars.

This file was used to determine the product and geographic market area for the Study; to estimate the utilization of M/WBEs on those contracts; and to calculate M/WBE availability in the Department's marketplace.

B. The Department's Product and Geographic Markets

1. NCDOT's Product Market

A defensible disparity study must determine empirically the industries that comprise the agency's product market. The accepted approach is to analyze those detailed industries, as defined by 6-digit North American Industry, Classification System ("NAICS") codes,¹⁹⁸ that make up at least 75 percent of the prime contract and subcontract payments for the Study period.¹⁹⁹ However, for this Study, we went further, and applied a "90/90/90" rule, whereby we analyzed NAICS codes that cover over 90 percent of the total contract dollars; over 90 percent of the prime contract dollars; and over 90 percent of the subcontract dollars. We took this approach because of the more limited nature of the contracts procured by a highway agency, so that we could be assured that we provide an in depth picture of NCDOT's activities.

Tables 1-3 present the NAICS codes used when examining contracts disaggregated by funding sources; the label for each NAICS code; and the industry percentage distribution of the number of contracts and spending across NAICS codes and funding source:

¹⁹⁸ www.census.gov/eos/www/naics.

¹⁹⁹ "Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program," Transportation Research Board of the National Academy of Sciences, NCHRP Report, Issue No. 644, 2010, pp. 50-51 ("National Disparity Study Guidelines").

Table 1: Industry Percentage Distribution of All Contracts

NAICS	NAICS Code Description	NAICS PCT	PCT TOTAL DOLLARS
237310	Highway, Street, and Bridge Construction	43.9%	43.9%
237990	Other Heavy and Civil Engineering Construction	36.8%	80.8%
541330	Engineering Services	3.5%	84.2%
237110	Water and Sewer Line and Related Structures Construction	2.2%	86.4%
484220	Specialized Freight (except Used Goods) Trucking, Local	1.9%	88.3%
423830	Industrial Machinery and Equipment Merchant Wholesalers	1.2%	89.5%
238910	Site Preparation Contractors	1.1%	90.6%
518210	Data Processing, Hosting, and Related Services	1.0%	91.7%
238990	All Other Specialty Trade Contractors	1.0%	92.7%
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers	1.0%	93.6%
238210	Electrical Contractors and Other Wiring Installation Contractors	1.0%	94.6%
484110	General Freight Trucking, Local	0.9%	95.5%
327320	Ready-Mix Concrete Manufacturing	0.8%	96.3%
561730	Landscaping Services	0.8%	97.0%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	0.6%	97.6%
238110	Poured Concrete Foundation and Structure Contractors	0.5%	98.2%
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	0.4%	98.6%
238120	Structural Steel and Precast Concrete Contractors	0.4%	99.0%
532299	All Other Consumer Goods Rental	0.4%	99.4%
236220	Commercial and Institutional Building Construction	0.2%	99.6%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	0.2%	99.8%
327390	Other Concrete Product Manufacturing	0.2%	100.0%

Source: CHA analysis of NCDOT data

Table 2: Industry Percentage Distribution of Prime Contracts

NAICS	NAICS Code Description	NAICS PCT	PCT TOTAL DOLLARS
237990	Other Heavy and Civil Engineering Construction	47.2%	47.2%
237310	Highway, Street, and Bridge Construction	42.1%	89.2%
541330	Engineering Services	1.9%	91.1%
237110	Water and Sewer Line and Related Structures Construction	1.8%	92.9%
423830	Industrial Machinery and Equipment Merchant Wholesalers	1.5%	94.4%
518210	Data Processing, Hosting, and Related Services	1.3%	95.7%
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers	1.0%	96.8%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	0.8%	97.5%
238910	Site Preparation Contractors	0.6%	98.1%
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	0.5%	98.7%
532299	All Other Consumer Goods Rental	0.5%	99.2%
238210	Electrical Contractors and Other Wiring Installation Contractors	0.3%	99.4%
238990	All Other Specialty Trade Contractors	0.2%	99.6%
238110	Poured Concrete Foundation and Structure Contractors	0.1%	99.7%
561730	Landscaping Services	0.1%	99.8%
236220	Commercial and Institutional Building Construction	0.1%	99.9%
484220	Specialized Freight (except Used Goods) Trucking, Local	0.1%	100.0%
327390	Other Concrete Product Manufacturing	0.0%	100.0%
327320	Ready-Mix Concrete Manufacturing	0.0%	100.0%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	0.0%	100.0%

Source: CHA analysis of NCDOT data

Table 3: Industry Percentage Distribution of Subcontracts

NAICS	NAICS Code Description	NAICS PCT	PCT TOTAL DOLLARS
237310	Highway, Street, and Bridge Construction	50.5%	50.5%
541330	Engineering Services	8.7%	59.2%
484220	Specialized Freight (except Used Goods) Trucking, Local	8.4%	67.6%
484110	General Freight Trucking, Local	3.9%	71.5%
238990	All Other Specialty Trade Contractors	3.8%	75.3%
237110	Water and Sewer Line and Related Structures Construction	3.5%	78.8%
327320	Ready-Mix Concrete Manufacturing	3.4%	82.3%
238210	Electrical Contractors and Other Wiring Installation Contractors	3.4%	85.6%
561730	Landscaping Services	3.1%	88.7%
238910	Site Preparation Contractors	2.8%	91.5%
238110	Poured Concrete Foundation and Structure Contractors	2.0%	93.5%
238120	Structural Steel and Precast Concrete Contractors	1.7%	95.3%
237990	Other Heavy and Civil Engineering Construction	1.3%	96.6%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	0.9%	97.4%
327390	Other Concrete Product Manufacturing	0.8%	98.2%
236220	Commercial and Institutional Building Construction	0.8%	99.0%
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers	0.7%	99.8%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	0.1%	99.9%
423830	Industrial Machinery and Equipment Merchant Wholesalers	0.1%	99.9%
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	0.0%	100.0%
532299	All Other Consumer Goods Rental	0.0%	100.0%

Source: CHA analysis of NCDOT data

2. NCDOT's Geographic Market

The courts require that a state government limit the reach of its race- and gender-conscious contracting program for contracts it funds to its market area.²⁰⁰ While it may be that the Department's jurisdictional borders comprise its market area, this element of the analysis must also be empirically established.²⁰¹ To determine the relevant geographic market area, we applied the rule of thumb of identifying the firm locations that account for at least 75 percent of contract and subcontract dollar payments in the contract data file.²⁰² Location was determined by zip code as listed in the file and aggregated into counties as the geographic unit.

Spending in North Carolina accounted for 88.9% of all contract dollars paid. Therefore, North Carolina constituted the market area from which we drew our availability data. Table 4 presents those North Carolina counties that account for 75 percent of the total spend.

Table 4: Geographic Percentage Distribution of Contracts

COUNTY	COUNTY PCT	PCT TOTAL
Wake County	38.4%	38.4%
Mecklenburg County	10.6%	49.1%
Edgecombe County	7.8%	56.8%
Wilson County	5.7%	62.5%
Guilford County	5.3%	67.8%
Catawba County	2.5%	70.3%
Buncombe County	1.9%	72.2%
Surry County	1.8%	74.0%
Forsyth County	1.7%	75.7%

Source: CHA analysis of NCDOT data

C. NCDOT's Utilization of M/WBEs in Its Market Areas

The next essential step was to determine the dollar value of the Department's utilization of M/WBEs in its geographic and product market areas, as measured by payments to prime firms and subcontractors and disaggregated by race and gender. Because the Department was unable to provide us with full records for payments to prime contractors and subcontractors other than firms certified as DBEs or M/WBEs, we contacted the prime vendors to request that they describe in detail their contract and subcontracts, including race, gender and dollar amount paid to date. We used

²⁰⁰ *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469, 508 (1989) (Richmond was specifically faulted for including minority contractors from across the country in its program based on the USDOT DBE program).

²⁰¹ *Concrete Works of Colorado, Inc. v. City and County of Denver*, 36 F.3d 1513, 1520 (10th Cir. 1994) (to confine data to strict geographic boundaries would ignore "economic reality").

²⁰² National Disparity Study Guidelines, p. 49.

the results of this extensive contract data collection process to assign minority or female status to the ownership of each firm in the contract data file.

We determined the distribution of contracts and contract dollars by NAICS codes for all funding sources, for federal-aid contracts and for State-funded contracts. “Highway, Street, and Bridge Construction” (237310) made up the largest share of contract awards and contract spending. The “Other Heavy and Civil Engineering Construction” subsector (237990) received a small number of very large awards. A chart of the applicable NAICS codes is provided in Appendix G for ease of reference.

**Table 5: NAICS Code Distribution of Contracts and Contract Dollars
All Funding Sources**

NAICS Code	Share of Total Contracts	Share of Total Contract Dollars
237110	2.5%	2.2%
237310	38.5%	45.1%
237990	0.8%	37.8%
238110	3.1%	0.6%
238120	0.9%	0.4%
238210	4.4%	1.0%
238910	1.8%	1.1%
238990	6.5%	1.0%
327320	2.2%	0.8%
327390	1.6%	0.2%
423830	0.7%	1.2%
423860	5.6%	0.2%
484110	5.4%	0.9%
484220	12.4%	2.0%
518210	0.0%	1.0%
541330	4.6%	3.6%
561730	8.9%	0.8%
Total	100.0%	100.0%

Source: CHA analysis of NCDOT data

**Table 6: NAICS Code Distribution of Contracts and Contract Dollars
State-Funded Contracts**

NAICS Code	Share of Total Contracts	Share of Total Contract Dollars
236220	1.9%	0.4%
237110	1.1%	0.7%
237310	41.6%	72.4%
237990	0.4%	1.3%
238110	2.9%	0.7%
238210	5.0%	0.5%
238990	7.7%	2.0%
423810	1.2%	1.7%
423830	0.7%	5.2%
484110	6.8%	1.2%
484220	18.3%	3.4%
518210	0.1%	4.4%
532299	0.1%	1.7%
541330	2.9%	2.2%
561730	8.5%	0.8%
811310	0.9%	1.4%
Total	100.0%	100.0%

Source: CHA analysis of NCDOT data

Table 7: NAICS Code Distribution of Contracts and Contract Dollars Federally-Funded Contracts

NAICS Code	Share of Total Contracts	Share of Total Contract Dollars
237110	3.8%	2.6%
237310	38.2%	35.7%
237990	1.1%	47.8%
238110	3.5%	0.5%
238120	1.5%	0.5%
238210	4.2%	1.1%
238910	2.4%	1.4%
238990	5.9%	0.7%
327320	2.7%	1.0%
327390	1.6%	0.2%
423320	0.9%	1.2%
423860	5.1%	0.2%
484110	4.7%	0.8%
484220	8.7%	1.5%
541330	6.1%	3.9%
561730	9.5%	0.8%
Total	100.0%	100.0%

Source: CHA analysis of NCDOT data

We next determined the utilization by NAICS code for Blacks, Hispanics, Asians, Native Americans, White women, MBEs as a whole, M/WBEs as a whole, and White men. Tables 8a, 8b, 9a, 9b, 10a, and 10b provide the data disaggregated by race and ethnicity. Tables 8c, 8d, 9c, 9d, 10c, and 10d provide the same data aggregated into M/WBEs as a whole.

As demonstrated in these tables, utilization of M/WBEs is highly concentrated by subsector. M/WBEs received few or no dollars in several subsectors. As we will demonstrate in the discussion of the disparity analysis, the lack (or absence) of M/WBEs receiving contracting dollars occurred despite their availability.

**Table 8a: Distribution of Contract Dollars by Race and Gender
All Funding Sources**

NAICS	Black	Hispanic	Asian	Native Americans	White Women
237110	\$589,112	\$0	\$0	\$0	\$1,247,616
237310	\$3,805,152	\$639,729	\$0	\$22,976,791	\$46,344,287
237990	\$0	\$0	\$0	\$0	\$147,007
238110	\$822,153	\$0	\$0	\$17,780	\$7,705,396
238120	\$0	\$100,658	\$0	\$0	\$10,476,727
238210	\$0	\$0	\$0	\$0	\$683,725
238910	\$96,251	\$3,047	\$0	\$539,934	\$377,834
238990	\$0	\$153,262	\$0	\$0	\$5,722,766
327320	\$0	\$0	\$0	\$0	\$0
327390	\$0	\$0	\$0	\$0	\$0
423830	\$0	\$0	\$0	\$0	\$0
423860	\$0	\$0	\$0	\$0	\$5,676,335
484110	\$9,867,033	\$35,005	\$0	\$174,788	\$14,824,997
484220	\$17,088,397	\$3,052,562	\$0	\$258,108	\$24,670,602
518210	\$0	\$0	\$0	\$0	\$0
541330	\$602,535	\$448,272	\$825,375	\$0	\$6,812,305
561730	\$1,398,392	\$992,304	\$39,502	\$2,153,592	\$13,192,504
Total	\$34,269,025	\$5,424,840	\$864,877	\$26,120,992	\$137,882,100

Source: CHA analysis of NCDOT data

**Table 8b: Distribution of Contract Dollars by MBE, M/WBE and Non-M/WBE
All Funding Sources**

NAICS	MBE	M/WBE	Non-M/WBE	Total
237110	\$589,112	\$1,836,728	\$59,627,338	\$61,464,066
237310	\$27,421,672	\$73,765,959	\$1,164,601,054	\$1,238,367,013
237990	\$0	\$147,007	\$1,037,384,786	\$1,037,531,792
238110	\$839,933	\$8,545,329	\$6,684,460	\$15,229,788
238120	\$100,658	\$10,577,385	\$506,458	\$11,083,844
238210	\$0	\$683,725	\$26,510,541	\$27,194,266
238910	\$639,232	\$1,017,066	\$30,085,081	\$31,102,146
238990	\$153,262	\$5,876,028	\$22,488,626	\$28,364,654
327320	\$0	\$0	\$21,875,053	\$21,875,053
327390	\$0	\$0	\$5,540,118	\$5,540,118
423830	\$0	\$0	\$33,602,347	\$33,602,347
423860	\$0	\$5,676,335	\$0	\$5,676,335
484110	\$10,076,826	\$24,901,823	\$169,228	\$25,071,050
484220	\$20,399,067	\$45,069,669	\$9,522,251	\$54,591,920
518210	\$0	\$0	\$28,706,522	\$28,706,522
541330	\$1,876,182	\$8,688,487	\$88,827,943	\$97,516,431
561730	\$4,583,790	\$17,776,294	\$3,771,783	\$21,548,078
Total	\$66,679,734	\$204,561,834	\$2,539,903,589	\$2,744,465,424

Source: CHA analysis of NCDOT data

**Table 8c: Distribution of Contract Dollars by Race and Gender (%)
All Funding Sources**

NAICS	Black	Hispanic	Asian	Native Americans	White Women
237110	1.0%	0.0%	0.0%	0.0%	2.0%
237310	0.3%	0.1%	0.0%	1.9%	3.7%
237990	0.0%	0.0%	0.0%	0.0%	0.0%
238110	5.4%	0.0%	0.0%	0.1%	50.6%
238120	0.0%	0.9%	0.0%	0.0%	94.5%
238210	0.0%	0.0%	0.0%	0.0%	2.5%
238910	0.3%	0.0%	0.0%	1.7%	1.2%
238990	0.0%	0.5%	0.0%	0.0%	20.2%
327320	0.0%	0.0%	0.0%	0.0%	0.0%
327390	0.0%	0.0%	0.0%	0.0%	0.0%
423830	0.0%	0.0%	0.0%	0.0%	0.0%
423860	0.0%	0.0%	0.0%	0.0%	100.0%
484110	39.4%	0.1%	0.0%	0.7%	59.1%
484220	31.3%	5.6%	0.0%	0.5%	45.2%
518210	0.0%	0.0%	0.0%	0.0%	0.0%
541330	0.6%	0.5%	0.8%	0.0%	7.0%
561730	6.5%	4.6%	0.2%	10.0%	61.2%
Total	1.2%	0.2%	0.0%	1.0%	5.0%

Source: CHA analysis of NCDOT data

**Table 8d: Distribution of Contract Dollars For MBEs, WBEs and Non-M/WBEs (%)
All Funding Sources**

NAICS	MBE	M/WBE	Non-M/WBE	Total
237110	1.0%	3.0%	97.0%	100.0%
237310	2.2%	6.0%	94.0%	100.0%
237990	0.0%	0.0%	100.0%	100.0%
238110	5.5%	56.1%	43.9%	100.0%
238120	0.9%	95.4%	4.6%	100.0%
238210	0.0%	2.5%	97.5%	100.0%
238910	2.1%	3.3%	96.7%	100.0%
238990	0.5%	20.7%	79.3%	100.0%
327320	0.0%	0.0%	100.0%	100.0%
327390	0.0%	0.0%	100.0%	100.0%
423830	0.0%	0.0%	100.0%	100.0%
423860	0.0%	100.0%	0.0%	100.0%
484110	40.2%	99.3%	0.7%	100.0%
484220	37.4%	82.6%	17.4%	100.0%
518210	0.0%	0.0%	100.0%	100.0%
541330	1.9%	8.9%	91.1%	100.0%
561730	21.3%	82.5%	17.5%	100.0%
Total	2.4%	7.5%	92.5%	100.0%

Source: CHA analysis of NCDOT data

Table 9a: Distribution of Federal-Aid Contract Dollars by Race and Gender

NAICS	Black	Hispanic	Asian	Native Americans	White Women
237110	\$589,112	\$0	\$0	\$0	\$1,147,711
237310	\$1,089,305	\$205,191	\$0	\$18,172,891	\$31,288,593
237990	\$0	\$0	\$0	\$0	\$147,007
238110	\$0	\$0	\$0	\$0	\$6,748,468
238120	\$0	\$100,658	\$0	\$0	\$10,445,332
238210	\$0	\$0	\$0	\$0	\$628,585
238910	\$96,251	\$0	\$0	\$287,994	\$376,309
238990	\$0	\$111,135	\$0	\$0	\$3,774,602
327320	\$0	\$0	\$0	\$0	\$0
327390	\$0	\$0	\$0	\$0	\$0
423320	\$0	\$0	\$0	\$0	\$408,520
423860	\$0	\$0	\$0	\$0	\$4,577,129
484110	\$7,155,503	\$0	\$0	\$105,912	\$10,195,924
484220	\$6,460,779	\$2,283,954	\$0	\$38,498	\$18,189,776
541330	\$44,432	\$448,272	\$769,224	\$0	\$3,749,873
561730	\$1,099,456	\$0	\$20,639	\$1,969,847	\$10,493,061
Total	\$16,534,838	\$3,149,210	\$789,863	\$20,575,142	\$102,170,890

Source: CHA analysis of NCDOT data

Table 9b: Distribution of Federal-Aid Contract Dollars by MBE, M/WBE and Non-M/WBE

NAICS	MBE	M/WBE	Non-M/WBE	Total
237110	\$589,112	\$1,736,823	\$54,949,662	\$56,686,484
237310	\$19,467,387	\$50,755,980	\$718,606,829	\$769,362,809
237990	\$0	\$147,007	\$1,028,870,051	\$1,029,017,057
238110	\$0	\$6,748,468	\$3,818,305	\$10,566,773
238120	\$100,658	\$10,545,990	\$480,164	\$11,026,154
238210	\$0	\$628,585	\$23,381,211	\$24,009,795
238910	\$384,245	\$760,554	\$28,597,798	\$29,358,352
238990	\$111,135	\$3,885,737	\$11,207,274	\$15,093,012
327320	\$0	\$0	\$21,520,871	\$21,520,871
327390	\$0	\$0	\$4,894,459	\$4,894,459
423320	\$0	\$408,520	\$26,348,887	\$26,757,407
423860	\$0	\$4,577,129	\$0	\$4,577,129
484110	\$7,261,415	\$17,457,339	\$8,578	\$17,465,917
484220	\$8,783,231	\$26,973,007	\$5,377,368	\$32,350,374
541330	\$1,261,928	\$5,011,801	\$78,347,745	\$83,359,546
561730	\$3,089,942	\$13,583,003	\$2,758,652	\$16,341,655
Total	\$41,049,053	\$143,219,943	\$2,009,167,852	\$2,152,387,795

Source: CHA analysis of NCDOT data

Table 9c: Distribution of Federal-Aid Contract Dollars by Race and Gender (%)

NAICS	Black	Hispanic	Asian	Native Americans	White Women
237110	1.0%	0.0%	0.0%	0.0%	2.0%
237310	0.1%	0.0%	0.0%	2.4%	4.1%
237990	0.0%	0.0%	0.0%	0.0%	0.0%
238110	0.0%	0.0%	0.0%	0.0%	63.9%
238120	0.0%	0.9%	0.0%	0.0%	94.7%
238210	0.0%	0.0%	0.0%	0.0%	2.6%
238910	0.3%	0.0%	0.0%	1.0%	1.3%
238990	0.0%	0.7%	0.0%	0.0%	25.0%
327320	0.0%	0.0%	0.0%	0.0%	0.0%
327390	0.0%	0.0%	0.0%	0.0%	0.0%
423320	0.0%	0.0%	0.0%	0.0%	1.5%
423860	0.0%	0.0%	0.0%	0.0%	100.0%
484110	41.0%	0.0%	0.0%	0.6%	58.4%
484220	20.0%	7.1%	0.0%	0.1%	56.2%
541330	0.1%	0.5%	0.9%	0.0%	4.5%
561730	6.7%	0.0%	0.1%	12.1%	64.2%
Total	0.8%	0.1%	0.0%	1.0%	4.7%

Source: CHA analysis of NCDOT data

Table 9d: Distribution of Federal-Aid Contract Dollars by MBE, M/WBE and Non-M/WBE (%)

NAICS	MBE	M/WBE	Non-M/WBE	Total
237110	1.0%	3.1%	96.9%	100.0%
237310	2.5%	6.6%	93.4%	100.0%
237990	0.0%	0.0%	100.0%	100.0%
238110	0.0%	63.9%	36.1%	100.0%
238120	0.9%	95.6%	4.4%	100.0%
238210	0.0%	2.6%	97.4%	100.0%
238910	1.3%	2.6%	97.4%	100.0%
238990	0.7%	25.7%	74.3%	100.0%
327320	0.0%	0.0%	100.0%	100.0%
327390	0.0%	0.0%	100.0%	100.0%
423320	0.0%	1.5%	98.5%	100.0%
423860	0.0%	100.0%	0.0%	100.0%
484110	41.6%	100.0%	0.0%	100.0%
484220	27.2%	83.4%	16.6%	100.0%
541330	1.5%	6.0%	94.0%	100.0%
561730	18.9%	83.1%	16.9%	100.0%
Total	1.9%	6.7%	93.3%	100.0%

Source: CHA analysis of NCDOT data

Table 10a: Distribution of State-Funded Contract Dollars by Race and Gender

NAICS	Black	Hispanic	Asian	Native Americans	White Women
236220	\$485,507	\$637,008	\$70,792	\$0	\$0
237110	\$0	\$0	\$0	\$0	\$99,905
237310	\$2,715,847	\$434,539	\$0	\$4,803,901	\$14,976,226
237990	\$0	\$0	\$0	\$0	\$0
238110	\$822,153	\$0	\$0	\$17,780	\$956,928
238210	\$0	\$0	\$0	\$0	\$55,140
238990	\$0	\$42,127	\$0	\$0	\$1,948,163
423810	\$0	\$0	\$0	\$0	\$0
423830	\$0	\$0	\$0	\$0	\$0
484110	\$2,711,530	\$35,005	\$0	\$68,876	\$4,629,073
484220	\$10,627,618	\$768,609	\$0	\$219,610	\$6,480,826
518210	\$0	\$0	\$0	\$0	\$0
532299	\$0	\$0	\$0	\$0	\$0
541330	\$558,104	\$0	\$56,152	\$0	\$3,062,432
561730	\$298,936	\$992,304	\$18,863	\$183,745	\$2,699,443
811310	\$0	\$0	\$0	\$0	\$0
Total	\$18,219,694	\$2,909,591	\$145,806	\$5,293,911	\$34,908,137

Source: CHA analysis of NCDOT data

Table 10b: Distribution of State-Funded Contract Dollars by MBE, M/WBE and Non-M/WBE

NAICS	MBE	M/WBE	Non-M/WBE	Total
236220	\$1,193,307	\$1,193,307	\$1,433,499	\$2,626,806
237110	\$0	\$99,905	\$4,677,677	\$4,777,582
237310	\$7,954,287	\$22,930,513	\$445,813,872	\$468,744,385
237990	\$0	\$0	\$8,510,085	\$8,510,085
238110	\$839,933	\$1,796,861	\$2,866,155	\$4,663,015
238210	\$0	\$55,140	\$3,129,331	\$3,184,471
238990	\$42,127	\$1,990,290	\$11,281,351	\$13,271,642
423810	\$0	\$0	\$10,988,312	\$10,988,312
423830	\$0	\$0	\$33,411,119	\$33,411,119
484110	\$2,815,411	\$7,444,484	\$160,650	\$7,605,133
484220	\$11,615,837	\$18,096,663	\$4,096,483	\$22,193,146
518210	\$0	\$0	\$28,706,522	\$28,706,522
532299	\$0	\$0	\$10,878,612	\$10,878,612
541330	\$614,256	\$3,676,688	\$10,480,198	\$14,156,885
561730	\$1,493,848	\$4,193,291	\$793,132	\$4,986,422
811310	\$0	\$0	\$8,873,805	\$8,873,805
Total	\$26,569,002	\$61,477,139	\$586,100,802	\$647,577,941

Source: CHA analysis of NCDOT data

Table 10c: Distribution of State-Funded Contract Dollars by Race and Gender (%)

NAICS	Black	Hispanic	Asian	Native Americans	White Women
236220	18.5%	24.3%	2.7%	0.0%	0.0%
237110	0.0%	0.0%	0.0%	0.0%	2.1%
237310	0.6%	0.1%	0.0%	1.0%	3.2%
237990	0.0%	0.0%	0.0%	0.0%	0.0%
238110	17.6%	0.0%	0.0%	0.4%	20.5%
238210	0.0%	0.0%	0.0%	0.0%	1.7%
238990	0.0%	0.3%	0.0%	0.0%	14.7%
423810	0.0%	0.0%	0.0%	0.0%	0.0%
423830	0.0%	0.0%	0.0%	0.0%	0.0%
484110	35.7%	0.5%	0.0%	0.9%	60.9%
484220	47.9%	3.5%	0.0%	1.0%	29.2%
518210	0.0%	0.0%	0.0%	0.0%	0.0%
532299	0.0%	0.0%	0.0%	0.0%	0.0%
541330	3.9%	0.0%	0.4%	0.0%	21.6%
561730	6.0%	19.9%	0.4%	3.7%	54.1%
811310	0.0%	0.0%	0.0%	0.0%	0.0%
Total	2.8%	0.4%	0.0%	0.8%	5.4%

Source: CHA analysis of NCDOT data

Table 10d: Distribution of State-Funded Contract Dollars by MBE, M/WBE and Non-M/WBE (%)

NAICS	MBE	M/WBE	Non-M/WBE	Total
236220	45.4%	45.4%	54.6%	100.0%
237110	0.0%	2.1%	97.9%	100.0%
237310	1.7%	4.9%	95.1%	100.0%
237990	0.0%	0.0%	100.0%	100.0%
238110	18.0%	38.5%	61.5%	100.0%
238210	0.0%	1.7%	98.3%	100.0%
238990	0.3%	15.0%	85.0%	100.0%
423810	0.0%	0.0%	100.0%	100.0%
423830	0.0%	0.0%	100.0%	100.0%
484110	37.0%	97.9%	2.1%	100.0%
484220	52.3%	81.5%	18.5%	100.0%
518210	0.0%	0.0%	100.0%	100.0%
532299	0.0%	0.0%	100.0%	100.0%
541330	4.3%	26.0%	74.0%	100.0%
561730	30.0%	84.1%	15.9%	100.0%
811310	0.0%	0.0%	100.0%	100.0%
Total	4.1%	9.5%	90.5%	100.0%

Source: CHA analysis of NCDOT data

D. The Availability of Minority- and Women-Owned Business Enterprises in the North Carolina Department of Transportation’s Markets

1. Methodological Framework

Estimates of the availability of minority- and women-owned firms in NCDOT’s market area are a critical component of the analysis of possible barriers to equal opportunities to participate in the Department’s contracting activities. These availability estimates are compared to the percentage of dollars received by Minority- and Women-Owned Business Enterprises (“M/WBEs”)– “utilization”– to examine whether M/WBEs receive parity. Availability estimates are also crucial for the Department to set overall, annual goals for DBE participation in federal-aid and state-funded contracts, and for setting narrowly tailored contact goals.

For our analysis, the term “M/WBE” includes firms that are certified as Disadvantaged Business Enterprises (“DBEs”) by the North Carolina Unified Certification Program. We use this broader designation for several reasons. First, firms enter and exit the DBE program based on changes in their size, the personal net worth of the owner, adherence to submission requirements and other factors. This group is therefore a less stable population than that comprised of firms owned by minorities or females. Next, DBE is a term defined by regulation,²⁰³ for which

²⁰³ 49 C.F.R. § 26.67.

there are no comparable regulatory criteria for White male-owned firms. To compare certified DBEs to non-certified firms would be an “apples to oranges” comparison of a defined group to an undefined group. Third, the vast majority of minority-owned firms would meet the size and personal net worth restrictions of the DBE program.²⁰⁴ Finally, and perhaps most importantly, as discussed in Chapter II, the inclusion of all M/WBEs in the pool casts the broad net approved by the courts that supports the remedial nature of the programs.²⁰⁵

Further, this approach reflects the official guidance from USDOT regarding estimating availability pursuant to the DBE program regulations. “If you have data about the number of minority and women-owned businesses (regardless of whether they are certified as DBEs) in your market area, or DBEs in your market area that are in other recipients’ Directories but not yours, you can supplement your Directory data with this information. Doing so may provide a more complete picture of the availability of firms to work on your contracts than the data in your Directory alone.”²⁰⁶

We applied the true “custom census” approach for this Study that embodies these principles. As recognized by the National Model Disparity Study Guidelines,²⁰⁷ this methodology is superior to the other methods allowable under 49 C.F.R. § 26.45 for at least four reasons. First, it provides an internally consistent and rigorous “apples to apples” comparison between firms in the availability numerator and those in the denominator. Second, by “casts[ing] a broader net” it comports with the remedial nature of the DBE Program. Third, a custom census is less likely to be tainted by the effects of past and present discrimination than the other methods. Finally, it has been upheld by every court that has reviewed it. The Tenth Circuit found the custom census approach to be “a more sophisticated method to calculate availability than the earlier studies.”²⁰⁸ Likewise, this method was successful in the defense of the

²⁰⁴ According to the U.S. Census Bureau, in 2011 (the most recent available data) 16.9 percent of non-Hispanic White households had a net worth of more than \$500,000 compared to 3.3 percent of Black households and 3.9 percent of Hispanic households. Similarly, the median net worth for non-Hispanic White households was \$110,500 compared to \$6,314 for Black households and \$7,683 for Hispanic households. <http://www.census.gov/people/wealth>.

²⁰⁵ *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715, 723 (7th Cir. 2007) (The “remedial nature of the federal scheme militates in favor of a method of DBE availability calculation that casts a broader net.”).

²⁰⁶ <http://www.osdbu.dot.gov/dbeprogram/hottips.cfm>.

²⁰⁷ National Disparity Study Guidelines, pp.57-58.

²⁰⁸ *Concrete Works of Colorado, Inc. v. City and County of Denver*, 321 F.3d 950, 966 (10th Cir. 2003), cert. denied, 540 U.S. 1027 (2003).

DBE programs for Minnesota DOT²⁰⁹ and Illinois DOT,²¹⁰ as well as the M/WBE construction program for the City of Chicago.²¹¹

This approach is less impacted by variables affected by discrimination. Factors such as firm age, size, qualifications and experience are all elements of business success where discrimination would be manifested. Most courts have properly refused to make the results of discrimination the benchmark for non-discrimination and recognized that. They have acknowledged that M/WBEs may be smaller, newer, and otherwise less competitive than non-M/WBEs because of the very discrimination sought to be remedied by race-conscious contracting programs.²¹² Racial and gender differences in these “capacity” factors are the *outcomes* of discrimination and it is therefore inappropriate as a matter of economics and statistics to use them as “control” variables in a disparity study.²¹³

2. Estimation of M/WBE Availability

To conduct the custom census for NCDOT, we took the following steps:

- Created a database of representative, recent, and complete Department contracts;
- Identified the Department’s relevant geographic market by counties;
- Identified the Department’s relevant product market by 6-digit NAICS codes;
- Counted all businesses in the relevant markets using Dun & Bradstreet/Hoovers databases;
- Identified listed minority-owned and women-owned businesses in the relevant markets;
- Assigned ownership status to all other firms in the relevant markets.

As described in sections B and C of this Chapter, we first determined the Department’s market area and its utilization of firms by 6-digit NAICS codes, aggregated industries and total dollars spent. Based on these results, the share of total dollars spent in each NAICS code for firms in the market area was used to create the overall M/WBE availability estimate for each NAICS code, the availability

²⁰⁹ *Sherbrooke Turf, Inc. v. Minnesota Department of Transportation*, 345 F.3d 964 (8th Cir. 2003), cert. denied, 541 U.S. 1041 (2004).

²¹⁰ *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715 (7th Cir. 2007).

²¹¹ *Builders Association of Greater Chicago v. City of Chicago*, 298 F. Supp.2d 725 (N.D. Ill. 2003).

²¹² *Concrete Works*, 321 F.3d at 981 (“M/WBE construction firms are generally smaller and less experienced *because* of discrimination.... Additionally, we do not read *Croson* to require disparity studies that measure whether construction firms are able to perform a *particular contract*.”) (emphasis in the original).

²¹³ For a detailed discussion of the role of capacity in disparity studies, see the National Disparity Study Guidelines, Appendix B, “Understanding Capacity.”

estimates for each aggregated industries and the availability estimates for all industries.

First, we purchased the firm information from Hoovers for the firms in the 17 NAICS codes located in the State's market area. Hoovers, a Dun & Bradstreet company, maintains a comprehensive, extensive and regularly updated listing of all firms conducting business; the database includes a vast amount of information on each firm, including location and detailed industry codes, and is the broadest publicly available data source for firm information.

In past years, the data from Hoovers (then Dun & Bradstreet) contained detailed information on the racial identity of the owner of firm. However, recently Hoovers changed its practice and currently, the data simply identify a firm as being minority-owned.²¹⁴ This change required us to revise our approach to determining the racial identity of firms' ownership so as to provide narrowly tailored and accurate analyses concerning possible disparity in an agency's contracting practices.

To provide race detail and improve the accuracy of the race and sex assignments, we created a Master M/WBE Directory that combined the results of an exhaustive search for directories and other lists containing information about minority and women-owned businesses. This included the North Carolina Unified Certification Program; the State of North Carolina Historically Underutilized Business certification list; lists from local government such as the city of Charlotte, the city and the County of Durham; and many others. In total, we contacted 132 organizations for this Study. The resulting list of minority businesses is comprehensive and, from the perspective of the question at hand of supplementing the Hoovers data base, provides data to supplement the Hoovers data base by disaggregating the broad category of "minority-owned" into specific racial groupings. The list of these groups is provided in Appendix A.

We therefore used information from the Master Directory to estimate the specific racial identity of firms in the Hoovers database that are listed as minority-owned. The process involved the following steps:

1. Sort Hoovers by the 6-digit NAICS codes that comprise the NCDOT product market area;
2. Identify the number of minority-owned firms in these NAICS codes;
3. Sort the Master Directory by each 6-digit NAICS code in the NCDOT product market area;
4. Determine the number of firms in each NAICS code that are minority owned (some firms in the Master Directory are woman-owned firms);
5. Determine the percentage of the minority-owned firms that are owned by:
 - a. Blacks
 - b. Hispanics

²¹⁴ The variable is labeled: "Is Minority Owned" and values for the variable can be either "yes" or "no".

- c. Asians
 - d. Native Americans; and
6. Apply these percentages to the number of minority-owned firms in Hoovers.

The resulting numbers represent the number of Blacks, Hispanics, Asians, and Native Americans in the Hoovers database.

Below is an example of how this process works after Hoovers and the Master Directory have been sorted and the number of minority-owned firms in each NAICS code has been identified in Hoovers:

1. Hoovers data base (basic counts in original)

NAICS	Is Minority Owned	Total (Overall)
99999	200	2000

2. Master Directory (basic count in original)

NAICS	Black	Hispanic	Asian	Native American	Total
99999	40	20	4	16	80

3. Master Directory (percentages)

NAICS	Black	Hispanic	Asian	Native American	Total
99999	50%	25%	5%	20%	100%

4. Hoovers data base (with Master Directory percentages applied)

NAICS	Black	Hispanic	Asian	Native American	Is Minority-Owned	Total (Overall)
99999	100	50	10	40	200	2000

Based upon the results of these classifications and further assignments, we next estimated the availability of M/WBEs as a percentage of total firms. M/WBE unweighted availability is defined as the number of M/WBEs divided by the total number of firms in NCDOT's market area. Table 11 provides the unweighted availability estimate for each of the 17 NAICS codes that comprise the product market for all funding sources.

Table 11: Unweighted Availability – All Funding Sources

NAICS Code	Black	Hispanic	Asian	Native American	White Women	MBE	M/WBE	Non-M/WBE
237110	4.18%	0.46%	0.70%	2.09%	14.29%	7.43%	21.72%	78.28%
237310	9.95%	0.95%	0.42%	1.06%	11.37%	12.39%	23.76%	76.24%
237990	3.51%	0.70%	1.40%	0.70%	13.95%	6.31%	20.27%	79.73%
238110	4.69%	2.93%	0.00%	1.46%	6.05%	9.08%	15.14%	84.86%
238120	10.04%	3.35%	0.00%	0.00%	24.11%	13.39%	37.50%	62.50%
238210	3.14%	0.73%	0.41%	0.91%	5.55%	5.19%	10.74%	89.26%
238910	6.21%	0.00%	0.18%	0.89%	11.62%	7.27%	18.89%	81.11%
238990	2.78%	0.64%	0.14%	0.79%	6.60%	4.35%	10.95%	89.05%
327320	4.55%	0.00%	0.00%	0.00%	6.82%	4.55%	11.36%	88.64%
327390	3.52%	0.00%	0.00%	1.17%	11.41%	4.70%	16.11%	83.89%
423830	1.77%	0.59%	0.00%	0.59%	5.63%	2.95%	8.57%	91.43%
423860	3.85%	3.08%	3.85%	0.77%	10.40%	11.56%	21.97%	78.03%
484110	7.05%	0.49%	0.06%	0.85%	4.82%	8.44%	13.26%	86.74%
484220	30.45%	3.49%	0.00%	1.50%	12.26%	35.44%	47.70%	52.30%
518210	7.73%	0.89%	3.86%	1.49%	14.48%	13.97%	28.45%	71.55%
541330	3.77%	1.66%	3.24%	0.96%	8.67%	9.64%	18.31%	81.69%
561730	3.03%	0.48%	0.00%	0.77%	4.46%	4.28%	8.75%	91.25%
Total	4.98%	0.81%	0.59%	0.86%	6.96%	7.24%	14.2%	85.80%

Source: CHA analysis of Hoovers data

Table 12 provides the unweighted availability estimate for each of the 16 NAICS codes that comprise the product market for federally-funded contracts.

Table 12: Unweighted Availability – Federally-funded Contracts

NAICS Code	Black	Hispanic	Asian	Native American	White Women	MBE	M/WBE	Non-M/WBE
237110	4.18%	0.46%	0.70%	2.09%	14.29%	7.43%	21.72%	78.28%
237310	9.95%	0.95%	0.42%	1.06%	11.37%	12.39%	23.76%	76.24%
237990	3.51%	0.70%	1.40%	0.70%	13.95%	6.31%	20.27%	79.73%
238110	4.69%	2.93%	0.00%	1.46%	6.05%	9.08%	15.14%	84.86%
238120	10.04%	3.35%	0.00%	0.00%	24.11%	13.39%	37.50%	62.50%
238210	3.14%	0.73%	0.41%	0.91%	5.55%	5.19%	10.74%	89.26%
238910	6.21%	0.00%	0.18%	0.89%	11.62%	7.27%	18.89%	81.11%
238990	2.78%	0.64%	0.14%	0.79%	6.60%	4.35%	10.95%	89.05%
327320	4.55%	0.00%	0.00%	0.00%	6.82%	4.55%	11.36%	88.64%
327390	3.52%	0.00%	0.00%	1.17%	11.41%	4.70%	16.11%	83.89%
423320	1.81%	0.60%	0.00%	0.00%	6.21%	2.41%	8.62%	91.38%
423860	3.85%	3.08%	3.85%	0.77%	10.40%	11.56%	21.97%	78.03%
484110	7.05%	0.49%	0.06%	0.85%	4.82%	8.44%	13.26%	86.74%
484220	30.45%	3.49%	0.00%	1.50%	12.26%	35.44%	47.70%	52.30%
541330	3.77%	1.66%	3.24%	0.96%	8.67%	9.64%	18.31%	81.69%
561730	3.03%	0.48%	0.00%	0.77%	4.46%	4.28%	8.75%	91.25%
Total	5.02%	0.83%	0.51%	0.85%	6.84%	7.22%	14.1%	85.94%

Source: CHA analysis of Hoovers data

Table 13 provides the unweighted availability estimate for each of the 16 NAICS codes that comprise the product market for State-funded contracts.

Table 13: Unweighted Availability – State-Funded Contracts

NAICS Code	Black	Hispanic	Asian	Native American	White Women	MBE	M/WBE	Non-M/WBE
236220	8.14%	1.59%	1.59%	3.59%	10.48%	14.90%	25.38%	74.62%
237110	4.18%	0.46%	0.70%	2.09%	14.29%	7.43%	21.72%	78.28%
237310	9.95%	0.95%	0.42%	1.06%	11.37%	12.39%	23.76%	76.24%
237990	3.51%	0.70%	1.40%	0.70%	13.95%	6.31%	20.27%	79.73%
238110	4.69%	2.93%	0.00%	1.46%	6.05%	9.08%	15.14%	84.86%
238210	3.14%	0.73%	0.41%	0.91%	5.55%	5.19%	10.74%	89.26%
238990	2.78%	0.64%	0.14%	0.79%	6.60%	4.35%	10.95%	89.05%
423810	2.24%	1.12%	0.00%	1.12%	1.99%	4.48%	6.47%	93.53%
423830	1.77%	0.59%	0.00%	0.59%	5.63%	2.95%	8.57%	91.43%
484110	7.05%	0.49%	0.06%	0.85%	4.82%	8.44%	13.26%	86.74%
484220	30.45%	3.49%	0.00%	1.50%	12.26%	35.44%	47.70%	52.30%
518210	7.73%	0.89%	3.86%	1.49%	14.48%	13.97%	28.45%	71.55%
532299	0.00%	0.00%	0.00%	0.88%	11.99%	0.88%	12.87%	87.13%
541330	3.77%	1.66%	3.24%	0.96%	8.67%	9.64%	18.31%	81.69%
561730	3.03%	0.48%	0.00%	0.77%	4.46%	4.28%	8.75%	91.25%
811310	0.00%	0.40%	0.40%	0.79%	5.64%	1.58%	7.22%	92.78%
Total	4.84%	0.83%	0.62%	1.02%	6.88%	7.32%	14.2%	85.80%

Source: CHA analysis of Hoovers data

To further meet the constitutional requirement that the availability estimates be narrowly tailored, we then weighted the availability estimate for each of the aggregated industries in the NAICS codes by the Department’s spending patterns as reflected in the dollars spent in each code.

The final estimates in Table 14 are the weighted averages of all the individual 6-digit level availability estimates in NCDOT’s market area, with the weights being the percentage share of dollars spent.

Table 14: Aggregated Weighted Availability for All Industries

Funding Source	Black	Hispanic	Asian	Native American	White Women	MBE	M/WBE	Non-M/WBE
FEDERAL	4.48%	1.82%	0.62%	1.08%	9.27%	8.00%	17.27%	81.97%
STATE	5.63%	2.46%	0.23%	1.33%	6.75%	9.65%	16.40%	82.83%

Source: CHA analysis of NCDOT and Hoovers data

E. Analysis of Race and Gender Disparities in the North Carolina Department of Transportation’s Utilization of Minority- and Women-Owned Business Enterprises

To meet the strict scrutiny requirement that the State consider evidence of disparities to establish its compelling interest in remedying discrimination in the market for its state-funded contracts, we next calculated disparity ratios for total weighted M/WBE utilization compared to the total weighted availability of M/WBEs, measured in dollars paid. Table 15 provides the results of our analysis.²¹⁵ A “large” or “substantively significant” disparity is commonly defined by courts as utilization that is equal to or less than 80 percent of the availability measure. A significant disparity supports the inference that the result may be caused by discrimination.²¹⁶

Table 15: Disparity Ratios by Demographic Group for State-Funded Contracts

Demographic Group	Disparity Ratio
Black	49.94%
Hispanic	18.25%
Asian	9.98%
Native American	61.41%
White Women	79.87%
MBE	42.50%*
M/WBE	57.88%**

* Indicates statistical significance at the 0.05 level

** Indicates statistical significance at the 0.01 level

Source: CHA analysis of NCDOT and Hoovers data

The disparity indices for Blacks, Hispanics, Asians, Native Americans and White women, for MBEs combined and for M/WBEs combined, were substantively significant. In addition, the ratios for MBEs and for M/WBEs combined were statistically significant,²¹⁷ as was the ratio for Non-M/WBEs. The results were true even with the use of contract goals on State jobs.

²¹⁵ As discussed in Chapter II, Congress has determined that there is a strong basis in evidence for the use of race- and gender-conscious measures to remedy disparities in DBE utilization on federal-aid contracts.

²¹⁶ See U.S. Equal Opportunity Employment Commission regulation, 29 C.F.R. § 1607.4(D) (“A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact.”).

²¹⁷ See Appendix D for a further discussion of statistical significance.

V. Analysis of Race and Gender Barriers in the North Carolina Economy

Nobel Laureate Kenneth Arrow, in his seminal paper on the economic analysis of discrimination, observed:

Racial discrimination pervades every aspect of a society in which it is found. It is found above all in attitudes of both races, but also in social relations, in intermarriage, in residential location, and frequently in legal barriers. It is also found in levels of economic accomplishment; this is income, wages, prices paid and credit extended.²¹⁸

This Chapter explores the data and literature relevant to how discrimination in NCDOT's market and throughout the wider economy affects the ability of minorities and women to fairly and fully engage in the Department's contract opportunities. First, we analyzed the rates at which M/WBEs in North Carolina form firms and their earnings from those firms. Next, we summarize the literature on barriers to equal access to commercial credit. Finally, we summarize the literature on barriers to equal access to human capital. All three types of evidence have been found by the courts to be relevant and probative of whether a government will be a passive participant in discrimination without some type of affirmative interventions.

A. Disparities in Business Performance

A key element to determine the need for government intervention in the sectors of the economy where the Department procures goods and services is an analysis of the extent of disparities in those sectors independent of NCDOT's intervention through its contracting affirmative action programs. The courts have repeatedly held that analysis of disparities in the rates at which M/WBEs in the government's markets form businesses compared to similar non-M/WBEs, and their earnings from such businesses, are highly relevant to the determination whether the market functions properly for all firms regardless of the race or gender of their ownership.²¹⁹

To conduct this type of court-approved economy-wide analysis, we utilized U.S. Bureau of the Census datasets to address the central question whether firms owned by non-Whites and White women face disparate treatment in the

²¹⁸ Arrow, Kenneth J., "What Has Economics to say about racial discrimination?", *Journal of Economic Perspectives*, (1998), 12(2), pp. 91-100.

²¹⁹ See the discussion in Chapter II of the legal standards applicable to contracting affirmative action programs.

State's marketplace.²²⁰ In particular, we focused on the two sectors covered by this Study: Construction and Construction-related Services

We explored the existence of any disparities by analyzing two datasets, each of which permits examination of the issue from a unique vantage point.

- The Census Bureau's *Survey of Business Owners* allows us to examine disparities using individual firms as the basic unit of analysis.
- The Census Bureau's *American Community Survey* allows us to examine disparities using individual entrepreneurs as the basic unit of analysis.²²¹

Using both data sets, we found disparities for minorities and women in the two sectors that we studied in the State of North Carolina's marketplace. Overall, the results of our analyses of the North Carolina economy demonstrate that minorities and White women continue to face race- and gender-based barriers to equal opportunities as firm owners, and to equal opportunities to earn wages and salaries that impact their ability to form firms and to earn income from those firms. While not dispositive, this suggests that absent some affirmative intervention in the current operations of the Department's marketplace, NCDOT will function as a passive participant in these potentially discriminatory outcomes.²²²

1. Disparities in Firm Sales and Payroll

One way to measure equity is to examine the share of total sales and/or payroll a group has relative to its share of total firms. Parity would be represented by the ratio of sales or payroll share over the share of total firms equaling 100% (*i.e.*, a group has 10% of total sales and comprises 10% of all firms.) A ratio that is less than 100% indicates an underutilization of a demographic group, and a ratio of more than 100% indicates an overutilization of a demographic group.

Every five years, the Census Bureau administers the *Survey of Business Owners* ("SBO") to collect data on particular characteristics of businesses that

²²⁰ While this is often described as a "private sector analysis," a more accurate description is an "economy-wide" analysis because expenditures by the public sector are included in the Census databases.

²²¹ Data from 2008-2012 American Community Survey are the most recent for a five year period.

²²² Various appendices to this Chapter contain additional data and methodological explanations. Appendix A provides a list of entities that were contacted to help develop the "Master M/WBE Directory". Appendix B provides "Further Explanation of the Multiple Regression Analysis." Appendix C provides a "Further Explanation of Probit Regression Analysis." Appendix D discusses the meaning and role of "Significance Levels." Appendix E provides detailed "Additional Data from the Analysis of the Survey of Business Owners." Appendix F provides "Additional Data from the Analysis of American Community Survey."

report to the Internal Revenue Service receipts of \$1,000 or more.²²³ The 2007 SBO was released on August 16, 2012, so our analysis reflects the most current data available. The SBO collects demographic data on business owners disaggregated into the following groups:^{224, 225}

- Non-Hispanic Blacks
- Hispanics
- Non-Hispanic Native Americans
- Non-Hispanic Asians
- Non-Hispanic White Women
- Non-Hispanic White Men
- Firms Equally Owned by Non-Whites and Whites
- Firms Equally Owned by Men and Women
- Firms where the ownership could not be classified
- Publicly-Owned Firms

As stated earlier, we are interested in two key sectors where NCDOT purchases: Construction and Construction-related Services. The nature of the SBO data— a sample of all businesses, not the entire universe of all businesses— required some adjustments. In particular, we had to define the sectors of interest at the 2-digit North American Industry Classification System (“NAICS”) code level and therefore our sector definitions do not exactly correspond to the definitions used to analyze the State’s contract data in Chapter IV. With the State’s contract data we are able to determine sectors at the 6-digit NAICS code level. At a more detailed level, the number of firms sampled in particular demographic and sector cells may be so small that the Census Bureau does not report the information, either to avoid disclosing data on businesses that can be identified or because the small sample size generates unreliable estimates of the universe. We therefore measure firm performance in Construction using NAICS code 23 and firm performance in Construction-related Services using NAICS code 54. This latter category is labeled, Professional, Scientific, and Technical Services; this is the label employed throughout the discussion of SBO data.

Table 16 presents data from the Census Bureau’s Survey of Business Owners that indicate very large disparities in utilization between non-White owned firms and White male and White female owned firms in construction, when examining the sales of all firms, the sales of employer firms (firms that employ at least one worker), or the payroll of employer firms. For all four non-

²²³ See <http://www.census.gov/econ/sbo/about.html> for more information on the Survey.

²²⁴ Race and gender labels reflect the categories used by the Census Bureau.

²²⁵ For expository purposes, the adjective “Non-Hispanic” will not be used in this Chapter; any racial group referenced does not include members of that group who identify ethnically as Hispanic.

White groups, the disparity ratio in each measure was under 65%. In contrast, disparity ratios for White male and White female firms were exceeded 84%.²²⁶
²²⁷ It is important to note the disparity ratios for “Firms Not Classifiable”.
 These are publicly traded firms and their share of sales and payroll most often far exceeds their share to the total number of firms.²²⁸

**Table 16: Disparity Ratios of Firm Performance Measures
 Construction, Survey of Business Owners, 2007**

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
Panel A: Disparity Ratios for Non-White Firms			
Black	13.83%	27.33%	29.91%
Latino	33.45%	39.69%	46.82%
Native American	32.60%	41.33%	57.35%
Asian	52.16%	47.59%	31.18%
Panel B: Disparity Ratios for All Firms			
Non-White	23.71%	35.20%	42.44%
White Women	84.48%	94.90%	110.10%
White Men	96.75%	99.96%	100.97%
Equally Non-White & White	-----	-----	-----
Equally Women & Men	79.77%	51.31%	48.91%
Firms Not Classifiable	957.21%	284.45%	261.62%
All Firms²²⁹	100.0%	100.0%	100.0%

Source: CHA calculations from the Survey of Business Owners

For the most part, this pattern was repeated when examining the Professional, Scientific, and Technical Services sector. Table 17 indicates that Blacks, Hispanics, and Native Americans were under-utilized as

²²⁶ The Survey of Business Owners data available via American Fact Finder do not permit the use of regression analysis on these results.

²²⁷ 29 C.F.R. § 1607.4(D) (“A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact.”).

²²⁸ Appendix E presents the data underlying these disparity ratios.

²²⁹ In Tables 16-19, “All Firms” includes firms whose ownership could not be classified.

measured by the three performance metrics. This under-utilization was seen in the performance of White women firms in the sector. For these groups, disparity ratios were less than 38%. For Asian- and White male-owned firms, disparity ratios exceeded 52%. Once again, firms without any ownership classification received shares of sales and payrolls far exceeding their share of firms.

**Table 17: Disparity Ratios of Firm Performance Measures
Professional, Scientific, and Technical Services, Survey of Business
Owners, 2007**

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
Panel A: Disparity Ratios for Non-White Firms			
Black	17.15%	37.44%	25.83%
Latino	19.59%	36.91%	33.66%
Native American	22.42%	25.70%	17.54%
Asian	74.43%	65.95%	52.12%
Panel B: Disparity Ratios for All Firms			
Non-White	24.80%	45.80%	37.73%
White Women	29.47%	33.90%	30.36%
White Men	79.98%	66.12%	64.35%
Equally Non-White & White	-----	-----	-----
Equally Women & Men	36.13%	30.27%	26.40%
Firms Not Classifiable	2148.40%	625.46%	656.64%
All Firms	100.0%	100.0%	100.0%

Source: CHA calculations from the Survey of Business Owners

Tables 18 and 19 present similar data in a slightly different fashion. Because the central issue is the possible disparate treatment of non-White and White women firms, these tables present data on a new category: Non-M/WBE. Within this category are firms owned by White men; firms that are equally non-White and White owned; firms that are equally woman- and male- owned; and firms not classifiable. We then present the three measures of disparity for each group.

Table 18: Disparity Ratios of Firm Performance Measures

Construction, Survey of Business Owners, 2007

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
Panel A: Disparity Ratios for Non-White Firms			
Black	13.83%	27.33%	29.91%
Latino	33.45%	39.69%	46.82%
Native American	32.60%	41.33%	57.35%
Asian	52.16%	47.59%	31.18%
Panel B: Disparity Ratios for All Firms			
Non-Whites	23.71%	35.20%	42.44%
White Women	84.48%	94.90%	110.10%
Non-M/WBE	113.90%	104.16%	102.63%
All Firms	100.0%	100.0%	100.0%

Source: CHA calculations from the Survey of Business Owners

Table 19: Disparity Ratios of Firm Performance Measures Professional, Scientific, and Technical Services, Survey of Business Owners, 2007

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
Panel A: Disparity Ratios for Non-White Firms			
Black	17.15%	37.44%	25.83%
Latino	19.59%	36.91%	33.66%
Native American	22.42%	25.70%	17.54%
Asian	74.43%	65.95%	52.12%
Panel B: Disparity Ratios for All Firms			
Non-Whites	24.80%	45.80%	37.73%
White Women	29.47%	33.90%	30.36%
Non-M/WBE	142.04%	119.18%	120.54%
All Firms	100.0%	100.0%	100.0%

Source: CHA calculations from the Survey of Business Owners

2. Disparities in Wages and Business Earnings

As discussed in the beginning of this Chapter, the key question is whether firms owned by non-Whites and White women face disparate treatment in the marketplace without the intervention of the State's Business Enterprise Program.

In the previous section, we explored this question using SBO data. In this section, we use the Census Bureau's *American Community Survey* data to address other aspects of this question. One element asks if there exist

demographic differences in the wage and salary income received by private sector workers. Beyond the issue of bias in the incomes generated in the private sector, this exploration is important for the issue of possible variations in the rate of business formation by different demographic groups. One of the determinants of business formation is the pool of financial capital at the disposal of the prospective entrepreneur. The size of this pool is related to the income level of the individual either because the income level impacts the amount of personal savings that can be used for start-up capital or the income level affects one's ability to borrow funds. If particular demographic groups receive lower wages and salaries then they would have access to a smaller pool of financial capital, and thus reduce the likelihood of business formation.²³⁰

The *American Community Survey* ("ACS") *Public Use Microdata Sample* ("PUMS") is useful in addressing these issues. The ACS is an annual survey of 1% of the population and the PUMS provides detailed information at the individual level. In order to obtain robust results from our analysis, we use the file that combines data for 2008 through 2012, the most recent available.²³¹ With this rich data set, our analysis can establish with greater certainty any causal links between race, gender and economic outcomes.

Often, the general public sees clear associations between race, gender, and economic outcomes and assumes this association reflects a tight causal connection. However, economic outcomes are determined by a broad set of factors, including, but extending beyond, race and gender. To provide a simple example, two people who differ by race or gender may receive different wages. This difference may simply reflect that the individuals work in different industries. If this underlying difference is not known, one might assert the wage differential is the result of the race or gender difference. To better understand the impact of race or gender on wages, it is important to compare individuals of different races or genders who work in the same industry. Of course, wages are determined by a broad set of factors beyond race, gender, and industry. With the ACS PUMS, we have the ability to include a wide range of additional variables such as age, education, occupation, and state of residence.

We employ a multiple regression statistical technique to process this data. This methodology allows us to perform two analyses: an estimation of how variations in certain characteristics (called independent variables) will impact the level of some particular outcome (called a dependent variable); and a

²³⁰ For a discussion about the academic literature and findings regarding self-employment and race, see, e.g., Fairlie, R. W., "Entrepreneurship among Disadvantaged Groups: An Analysis of the Dynamics of Self-Employment by Gender, Race and Education," *Handbook of Entrepreneurship*, Volume 2 (2006); Fairlie R. W. and Meyer, B. D., "Ethnic and Racial Self-Employment Differences and Possible Explanations," *Journal of Human Resources*, (1996).

²³¹ For more information about the ACS PUMS, please see <http://www.census.gov/acs/>.

determination of how confident we are that the estimated variation is statistically different from zero. We have provided more detail on this technique in Appendix B.

With respect to the first result of regression analysis, we will examine how variations in the race, gender, and industry of individuals impact the wages and other economic outcomes received by individuals. The technique allows us to determine the effect of changes in one variable, assuming that the other determining variables are the same. That is, we compare individuals of different races, but of the same gender and in the same industry; or we compare individuals of different genders, but of the same race and the same industry; or we compare individuals in different industries, but of the same race and gender. We are determining the impact of changes in one variable (e.g., race, gender or industry) on another variable (wages), “controlling for” the movement of any other independent variables. For example, if a table indicates that a wage coefficient for one group (e.g., White women) is 0.000, this indicates that there is no difference in wages for White women compared to similarly situated (*i.e.*, same education, age, occupation, etc.) White men. If a wage coefficient is – 0.035 for a group, this means wages for that group are 3.5% less than similarly situated White men.

With respect to the second result of regression analysis, this technique also allows us to determine the statistical significance of the relationship between the dependent variable and independent variable. For example, the relationship between gender and wages might exist but we find that it is not statistically different from zero. In this case, we are not confident that there is not any relationship between the two variables. If the relationship is not statistically different from zero, then a variation in the independent variable has no impact on the dependent variable. The regression analysis allows us to say with varying degrees of statistical confidence that a relationship is different from zero. If the estimated relationship is statistically significant at the 0.05 level, that indicates we are 95% confident that the relationship is different from zero; if the estimated relationship is statistically significant at the 0.01 level, that indicates we are 99% confident that the relationship is different from zero; if the estimated relationship is statistically significant at the 0.001 level, that indicates we are 99.9% confident that the relationship is different from zero.²³²

We report data on the Construction and Construction-Related Services sectors. The balance of this section reports data on the differences in wages received by a demographic group relative to White men (wage differentials) and the differences in business earnings received by a demographic group relative to White men (business earnings differentials). The next section

²³² Most social scientists do not endorse utilizing a confidence level of less than 95%. Appendix D explains more about statistical significance.

reports data on the share of a demographic group that forms a business (business formation rates) and the probabilities that a demographic group will form a business relative to White men (business formation probabilities).

Table 20 presents the findings from the wage and salary income regression analysis examining the construction industry in North Carolina. This indicates the wage differential for selected demographic groups in North Carolina relative to White men.

Table 20: Wage Differentials for Selected Groups Relative to White Men, Construction, American Community Survey, 2008-2012

Demographic Group	Earnings Relative to White Men (% Change)
Black	-0.258***
Hispanic	-0.028***
Native American	-0.366**
Asian/Pacific Islander	-0.3128**
Other	0.406**
White Women	-0.2962**

Source: CHA calculations from the American Community Survey

Holding constant factors such as education, age, occupation, and industry, Blacks, Hispanics, White women, and Asian/Pacific Islanders in North Carolina earn less than White men in the construction industry. The differential ranges between 3% less and 37% less. Estimates of the coefficients for Black, and Hispanic are statistically significant at the 0.001 level. Estimates of the coefficients for Native American, Asian/Pacific Islander, and White Women are statistically significant at the 0.01 level.

The same approach was used to investigate if there were differences in business earnings received by Non-White male entrepreneurs and White male entrepreneurs. Using the PUMS, we limited the sample to the self-employed and examined how their business income varied in response to factors such as race, gender, age, education, and industry. Table 21 presents these findings.

Table 21: Business Earnings Differentials for Selected Groups Relative to White Men, Construction, American Community Survey, 2008-2012

Demographic Group	Earnings Relative to White Men (% Change)
Black	-0.683**

Hispanic	0.103*
Native American	0.203***
Asian/Pacific Islander	-0.154***
Other	-0.1971
White Women	-0.754*

Source: CHA calculations from the American Community Survey

The estimates of the coefficients for these variables were found to be statistically significant at the 0.001, 0.01, or 0.05 levels. Business earnings for Asian/Pacific Islanders were 15.4% less than White men and the coefficient was significant at the 0.001 level. Business earnings for Blacks were 68% less than White men and the coefficient was significant at the 0.01 level. The coefficients for Hispanics and White women were significant at the 0.05 level; business earnings for Hispanics were found to be 10.3% more than similarly situated White men, while White women had business earnings that were 75.4% less than White men. Business earnings for Native Americans were found to exceed similarly situated White men by 20.3% and the coefficient was significant at the 0.001 level. For the estimated coefficient for Other, the results were not found to be significantly statistically different from zero.

Table 22 presents the findings from the wage and salary income regression analysis examining the construction-related services industry in North Carolina.

Table 22: Wage Differentials for Selected Groups Relative to White Men, Construction-related Services, American Community Survey, 2008-2012

Demographic Group	Earnings Relative to White Men (% Change)
Black	-0.258***
Hispanic	-0.028***
Native American	-0.366**
Asian/Pacific Islander	-0.3128**
Other	0.406**
White Women	-0.2962**

Source: CHA calculations from the American Community Survey

Blacks, Hispanics, White women, Native American and Asian/Pacific Islanders in North Carolina earn less than White men in the construction-related services industry. The differential ranges between 2.8% less and 36.6% less. Estimates of the coefficients for Blacks and Hispanics were significant at the 0.001 level; estimates for the coefficients for Native American, Asian/Pacific Islander, and White Women are statistically

significant at the 0.01 level. Wages for Others were 40.6% higher than White men and the coefficient was significant at the 0.01 level.

Business earnings differentials in the Construction-related Services industry are presented in Table 23. Here, we find none of the coefficients were significantly different than zero except for the coefficient for Asian/Pacific Islanders whose business earnings were 28.8% less than White men. The estimate was that Asian/Pacific Islanders receive business earnings less than White men by 28.8%.

Table 23: Business Earnings Differentials for Selected Groups Relative to White Men, Construction-related Services, American Community Survey, 2008-2012

Demographic Group	Earnings Relative to White Men (% Change)
Black	0.331
Hispanic	-0.2822
Native American	-0.635
Asian/Pacific Islander	-0.288**
Other	-0.624
White Women	-1.089

Source: CHA calculations from the American Community Survey

3. Disparities in Business Formation

A third method of exploring differences in economic outcomes is to examine the rate at which different demographic groups form businesses. We developed these business formation rates using data from the Census Bureau’s American Community Survey. Tables 24 and 26 present these results. The Table indicates that White men have higher business formation rates compared to non-Whites and White women. A subsequent question asks if any differences in business formation rate would still appear if key explanatory variables are taken into account. We use a probit regression technique to answer this question and present the results in Tables 25 and 27. Probit regression analysis is similar to the multiple regression technique used above but now the dependent variable is the probability that an event occurs— in this case, the probability of forming a business. Now the coefficient for a particular variable represents the probability of an event occurring that is associated with that variable compared to the probability the event occurs for some control variable. For instance, in Table 25, the coefficient for Blacks is -0.0829; this indicates that Blacks have an 8.29% lower probability of forming a business compared to White men.²³³

²³³ Appendix C provides information on probit regression analysis.

Table 24 presents business formation rates in the North Carolina construction industry. White males have a higher business formation rate for all other demographic groups but Other.

Table 24: Business Formation Rates, Construction, American Community Survey, 2008-2012

Demographic Group	Business Formation Rates
Black	19.16%
Hispanic	10.77%
Native American	27.30%
Asian/Pacific Islander	25.88%
Other	33.33%
MBE	15.32%
White Women	20.92%
MWBE	16.67%
White Male	32.93%

Source: CHA calculations from the American Community Survey

The next question asks if these differences— as with the issue of income and earnings differences— could be attributed to factors aside from race and/or gender. Table 25 presents the results of the probit analysis exploring this question. Each demographic group has a lower probability of forming a business relative to White males ranging from 10.25% for Native American to 0.64% for Other. Each coefficient was significant at the 0.001 level.

Table 25: Business Formation Probabilities Relative to White Males, Construction, American Community Survey, 2008-2012

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-0.0829***
Hispanic	-0.0578***
Native American	-0.1025***
Asian/Pacific Islander	-0.0098***
Other	-0.0064***
White Women	-0.0211***

Source: CHA calculations from the American Community Survey

Table 26 presents business formation rates in the construction-related services industry in North Carolina for selected demographic groups. As in the construction industry, White males have a higher business formation rate relative to all other groups except for Other.

Table 26: Business Formation Rates, Construction-related Services, American Community Survey, 2008-2012

Demographic Group	Business Formation Rates
Black	5.74%
Hispanic	6.38%
Native American	0.00%
Asian/Pacific Islander	1.89%
Other	50.00%
MBE	5.22%
White Women	11.29%
MWBE	9.21%
White Male	15.74%

Source: CHA calculations from the American Community Survey

Table 27 presents the results of the probit analysis for the construction-related services industry in North Carolina. Each demographic group has a lower probability of forming a business relative to White males except for Native American. These coefficients ranged from 5.82% for Other to 0.29% for White women. Native American had a 1.4% greater probability of forming a business relative to White males. All coefficients were significant at the 0.001 level.

Table 27: Business Formation Probabilities Relative to White Males, Construction-related Services, American Community Survey, 2008-2012

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-0.0519***
Hispanic	-0.0084***
Native American	0.0140***
Asian/Pacific Islander	-0.0499***
Other	-0.0582***
White Women	-0.0029***

Source: CHA calculations from the American Community Survey

B. Evidence of Disparities in Access to Business Capital

Capital is the lifeblood of any business. The interviews with business owners conducted as part of this Study confirmed that small firms, especially minority- and women-owned firms, had difficulties obtaining needed working capital to perform on NCDOT’s contracts and subcontracts, as well as expand the capacities of their firms. As discussed above, discrimination may even prevent firms from forming in the first place.

There is an extensive body of scholarly work on the relationship between personal wealth and successful entrepreneurship. There is a general consensus that disparities in personal wealth translate into disparities in business creation and ownership.²³⁴

The Federal Reserve Board and the U.S. Small Business Administration have conducted surveys of discrimination in the small business credit market for 1993, 1998 and 2003. These Surveys of Small Business Finances (“SSBF”) are based on a large representative sample of firms with fewer than 500 employees. The main finding from these Surveys is that MBEs experience higher loan denial probabilities and pay higher interest rates than white-owned businesses, even after controlling for differences in credit worthiness and other factors. Blacks, Hispanics and Asians were more likely to be denied credit than Whites, even after controlling for firm characteristics like credit

²³⁴ See, e.g., Evans, David S. and Jovanovic, Boyan, “An Estimated Model of Entrepreneurial Choice under Liquidity Constraints,” *Journal of Political Economy*, (1989); Evans, D. and Leighton, Linda “Some empirical aspects of entrepreneurship,” *American Economic Review*, (1989).

history, credit score and wealth. Blacks and Hispanics were also more likely to pay higher interest rates on the loans they did receive.²³⁵

A recent report to the U.S. Department of Commerce summarizes these Surveys, results from the Kauffman Firm Survey,²³⁶ data from the U.S. Small Business Administration's Certified Development Company/504 Guaranteed Loan Program²³⁷ and additional extensive research on the effects of discrimination on opportunities for MBEs. "Disparities in Capital Access Between Minority and Non-Minority-Owned Businesses: The Troubling Reality of Capital Limitations Faced by MBEs," found that

Low levels of wealth and liquidity constraints create a substantial barrier to entry for minority entrepreneurs because the owner's wealth can be invested directly in the business, used as collateral to obtain business loans or use to acquire other businesses.... [T]he largest single actor explaining racial disparities in business creation rates are differences in asset levels."²³⁸

Some of the key findings of the Report include:

- Minority-owned firms are less likely to receive loans than non-minority owned firms regardless of firm size. According to an analysis of data from the Survey of Small Business Finances, for firms with gross receipts over \$500,000, 52 percent of non-minority-owned firms received loans compared to 41 percent of minority-owned firms.
- When minority-owned firms do receive financing, it is for less money and at a higher interest rate than non-minority-owned firms regardless of the size of the firm. Minority-owned firms paid an average of 7.8 percent in interest rates for loans compared to 6.4 percent for non-minority-owned firms. Among firms with gross receipts under \$500,000, minority-owned firms paid an average of 9.1 percent in interest rates compared to 6.9 percent for non-minority-owned firms.

²³⁵ See Blanchflower, D. G., Levine, P. and Zimmerman, D., "Discrimination In The Small Business Credit Market," Review of Economics and Statistics, (2003); Cavalluzzo, K. S. and Cavalluzzo, L. C. ("Market structure and discrimination, the case of small businesses," Journal of Money, Credit, and Banking, (1998),

²³⁶ http://www.kauffman.org/~media/kauffman_org/research%20reports%20and%20covers/2013/06/kauffmanfirmsurvey2013.pdf.

²³⁷ <http://www.sba.gov/category/navigation-structure/loans-grants/small-business-loans/sba-loan-programs/real-estate-and-eq>.

²³⁸ Fairlie, R. W. and Robb, A., "Disparities in Capital Access Between Minority and Non-Minority-Owned Businesses: The Troubling Reality of Capital Limitations Faced by MBEs," U.S. Department of Commerce, Minority Business Development Agency, 2010, pp. 22-23.

- Minority owned firms are more likely to be denied loans. Among firms with gross receipts under \$500,000, loan denial rates for minority firms were about three times higher, at 42 percent, compared to those of non-minority-owned firm, at 16 percent. For high sales firms, the rates of loan denial were almost twice as high for MBEs as for non-MBEs.
- MBEs pay higher interest rates for business loans. For all firms, MBEs paid 7.8 percent on average for loans compared with 6.4 percent for non-MBEs. The difference was smaller, but still high, between MBEs and non-MBEs with high sales.
- Minority-owned firms receive smaller equity investments than non-minority owned firms even when controlling for detailed business and owner characteristics. The differences are large and statistically significant. The average amount of new equity investments in minority-owned firms receiving equity is 43 percent of the average of new equity investments in non-minority-owned firms. The differences were even larger for loans received by high sales firms. Yet, venture capital funds focusing on investing in minority firms provide returns that are comparable to mainstream venture capital firms.²³⁹
- Disparities in total investments in minority-owned firms compared to those in non-minority owned firms grew after the first year of business operations. According to the analysis of the data from the Kauffman Firm Survey, minority-owned firms investments into their firms were about 18 percent lower in the first year of operations compared to those of non-minority-owned firms. This disparity grew in the subsequent three years of operations, where minorities' investments into their firms were about 36 percent lower compared to those of non-minority-owned firms.

Minority entrepreneurs face challenges (including lower family wealth and difficulty penetrating financial markets and networks) directly related to race that limit their ability to secure financing for their businesses.²⁴⁰

C. Evidence of Disparities in Access to Human Capital

There is a strong intergenerational correlation with business ownership. The probability of self-employment is significantly higher among the children of the self-employed. This was evident in the large number of non-M/WBEs in our interview groups who were second, third or even higher generation firms doing business for NCDOT. This disadvantages minorities, whose earlier

²³⁹ See Bates, T., "Venture Capital Investment in Minority Business," *Journal of Money Credit and Banking* 40, 2-3 (2008).

²⁴⁰ Fairlie, R.W.. and Robb, A., *Race and Entrepreneurial Success: Black-, Asian- and White-Owned Businesses in the United States*, (Cambridge: MIT Press, 2008).

generations were denied business ownership through either de jure segregation or *de facto* exclusion.

There is evidence that current racial patterns of self-employment are in part determined by racial patterns of self-employment in the previous generation.²⁴¹ Black men have been found to face a “triple disadvantage”: they are less likely than White men to: 1. Have self-employed fathers; 2. Become self-employed if their fathers were not self-employed; and 3. To follow their fathers into self-employment.²⁴²

Intergenerational links are also critical to the success of the businesses that do form.²⁴³ Working in a family business leads to more successful firms by new owners. One study found that only 12.6 percent of Black business owners had prior work experiences in a family business as compared to 23.3 percent of White business owners.²⁴⁴ This creates a cycle of low rates of minority ownership and worse outcomes being passed from one generation to the next, with the corresponding perpetuation of advantages to White-owned firms.

Similarly, unequal access to business networks reinforces exclusionary patterns. The composition and size of business networks are associated with self-employment rates.²⁴⁵ The U. S. Department of Commerce has reported that the ability to form strategic alliances with other firms is important for success.²⁴⁶ MBEs in our interviews reported that they felt excluded from the networks that help to create success in the highway construction industry.

D. Conclusion

Based upon the results of the analysis of the Census data sets, and the extensive academic literature on race-based barriers to access to business capital and human capital formation, we find that this economy-wide evidence of barriers to full and fair opportunities for firms to compete for NCDOT’s contracts is the type and quality that courts have looked to determine whether a compelling interest in remedying discrimination exists.

²⁴¹ Fairlie, R. W., “The Absence of the African American Owned Business, An Analysis of the Dynamics of Self-Employment,” *Journal of Labor Economics*, (1999).

²⁴² Hout, M. and Rosen, H. S., “Self-employment, Family Background, and Race,” *Journal of Human Resources* 35, no.4 (2000).

²⁴³ Fairlie, R.W. and Robb, A., “Why are black-owned businesses less successful than White-owned businesses? The role of families, inheritances, and business human capital,” *Journal of Labor Economics*, (2007).

²⁴⁴ *Id.*

²⁴⁵ Allen, W. D., “Social Networks and Self-Employment,” *Journal of Socio-Economics* 29, no.5 (2000).

²⁴⁶ Increasing MBE Competitiveness through strategic Alliances (Minority Business Development Agency, 2008).

VI. Qualitative Evidence of Race and Gender Disparities in the North Carolina Economy

To explore anecdotal evidence of possible discrimination against minorities and women in the Department's market area, we conducted 13 group interviews and two public meetings, totaling 179 participants. We met with business owners from a broad cross section of the industries from which the Department purchases. Firms ranged in size from large national businesses to decades-old family-owned firms to new start-ups. Owners' backgrounds included individuals with decades of experience in their fields and entrepreneurs beginning their careers. We sought to explore their experiences in seeking and performing public and private sector construction prime contracts and subcontracts, both with NCDOT and in the private sector. We also elicited recommendations for improvements to NCDOT's current DBE and M/WBE programs and race- and gender-neutral procurement policies.

The following are summaries of the issues discussed. Quotations are indented, and have been edited for readability. They are representative of the views expressed over the many sessions by participants.

A. Discriminatory Attitudes and Negative Perceptions of Competence

Many minority and women owners reported that while some progress has been made in integrating their firms into public and private sector contracting activities in NCDOT's market area through affirmative action contracting programs, many barriers remain. Perhaps the most subtle and difficult to address is that of perceptions and stereotypes. Minorities and women repeatedly discussed their struggles with negative perceptions of and attitudes about their capabilities, especially in the construction industry.

Black men reported disrespectful attitudes and comments.

A year ago ... [I was] talking to the contractors about, okay, this is what we need to do. And I remember the G[eneral] C[ontractor] coming in and saying, who's the engineer? And someone said, he's been talking for the last 20 minutes. He's the engineer. He said, oh. Oh, okay. What did you say?

[When I was the government client I heard a consultant say] there must be some kind of Afro engineering out here.... I guess he thought that was funny.

We showed up at the presentation to the board and one firm flat told me, [name], let's be blunt. I want you because you're Black. I don't know what we're going to get you to do on this thing but I need you on the team.

Women related the continuing effects of stereotypes about gender roles and sexist behavior from male colleagues and clients.

One gentleman right on my face told me, “You don’t need to be in the recycling business because it’s a man’s world.”

I’ve had ... a very sizable firm that gets a lot of DOT work ... say to me personally and say to me in groups where I’ve been networking, “I’ve never met a woman who’s capable of doing any decent design work.”

I had a contractor that had asked me ... “Well, little miss, have you ever seen a rock quarry before?” I was like, my office is inside a rock quarry. Yes, I know what a rock quarry is. But I think once they get that opportunity and they know you know what you’re talking about. And they see you. That is such a big thing for you to be out there and you’re talking to them and seeing what you can do, visiting the job sites. That hasn’t been a barrier that I’ve had ever since then. But in the beginning it was.

Paternalistic attitudes were reported by some minority business persons.

[NC]DOT acts like ... they’re the grandparents, and the parents are the primes, and the subs are kids.

Being certified can create its own stigma.

When you’re listed in the program sometimes I think contractors or primes will say, well here’s the list of people who need to work small, who don’t have any assets, who can’t really do their job. They’re going to need somebody to hold their hand. So, it’s almost like a blacklist, like a strike against you if you’re on a DBE list.

Having operated in the government [as a staff person], trying to get minorities work and hearing what folks say when the firms are out of the room, I knew there was no sense in me wasting my energy selling myself as, hey, I’m the Black firm.... I knew if I wanted to eat ... I had to go ahead and just put the whole alphabet soup out of my mind. Now, in recent history because of recessions and other things, I determined I guess I need to break out and let folks know I’ve got some pigment and, if that matters to anybody, and sell my firm.

Some DBEs felt that sometimes non-DBEs were resentful about what was perceived as others taking “their” work.

The same three [non-DBE] firms are getting all the work. How did that feel to the rest of [us]? If other small firms are allowed to be in that position with their competitors, the prices will drop.

B. Exclusion from Industry and Information Networks

Many minorities and women recounted their exclusion from the industry networks necessary for success. Relationships are key to obtaining work as subcontractors.

I didn’t even call it racism. The firms have their relationships with other subconsultants they feel comfortable with.

Clients like to continue working with people that they have worked with before and that they feel comfortable with.

Why you need the program is ... when opportunity meets preparation.... Part of what the DBE and the WBE does is make it at least feasible for them to pick up the phone and call you.

It can difficult for DBEs to access important decision makers.

We have a problem getting to the people that can make a decision.

Women in particular reported that the “good ole boy” network remains a barrier to their opportunities.

If the general contractor didn't have to do these goals [then] they may reach out to their male counterpart that they feel more of a relationship towards, more of a networking. Just like as women we feel more of a relationship to one another.... The good old boy network is still prevalent. And especially in the construction field.... If the [bidding price] numbers were the same I think that relationship that they have would override a woman doing the job.

I've sat in a room with a bunch of men and they were all talking about their Army experiences, and out in the field experiences, and you know, there's nothing I can contribute to that.

I'm not going to say they treat me unfairly. It's just that if a guy was running my business they'd be more comfortable.

I know a lot of women-owned businesses in construction. But they don't get the contracts. And they are more than qualified to do the work. So, there is something definitely underlying there that's wrong, in terms of why. They're bonded. They have the capacity. They're professional. It's a good old boy network.

That's exactly right.

Yeah, it is.

Some White women had not experienced exclusion because of their sex.

This is not DOT related, but the majority of the meetings that I go to are male meetings. Just because of the private industry. Most engineers are males and most construction people are males. And, the only time that I really deal with more women is the regulatory folks. But I haven't seen a problem with that.

I'm the majority owner of the firm so I'm often the one making those marketing and sales calls. And I don't really feel like I'm looked at negatively by the fact that I'm a woman. I mean occasionally you'll run into that, maybe you can kind of sense that attitude, but it's usually somebody you don't really care to work for anyway.

C. Obtaining Public Sector Work on an Equal Basis

Most minority and women owners agreed that the DBE and M/WBE Programs remain necessary to reduce barriers to equal contracting opportunities.

[The program creates] some willingness for them to let us in their door, to talk to us, just by the fact that we're a woman and from there we have to sell ourselves beyond that.

They're not going to [use minority firms without goals].

I still think it's needed, too. I get a lot of work from the program.

We all like to do work with people we know and trust. That's the human factor. And that may not have anything to do with my gender or race. It may just have to do with, I know you, I like you. I've worked with you before. I can trust you. But if I don't get a chance to get in and develop that same relationship with you for you to know me, like me, and trust me, then how do we grow in competition to those people who already have that relationship? To me that's the real foundation of the DBE program.

The majority of the contractors that we work in in highway work have blanketed everything that has to do with that work. Other words, if we didn't have this program, they would be doing that job themselves because they would have that money in their pocket.... There's nobody that can up and come because they can't get built up in the industry that far enough to even do that.

If I didn't have that DBE status or something behind [firm] name, I wouldn't get that job.

Native-American firms reported that when they were no longer eligible for goal credit for State-funded contracts, their opportunities quickly dried up.

If we didn't have what we have now [within the DBE program] I would have to move to a different area or change work. Over half of my work was gone.... I thought I had built up a relationship, that I gave a good quality of service and helped make them money. But then when that was gone, I don't know if it's the economy or not, the prime contractors started doing everything their self.

Since the Native American is not a minority, my gross has dropped by half.... I have half the employees. And at the same time, I went early to the meetings about the Native Americans. There was a lot of people there that were small family-owned business. They didn't know how to get through this, how to work through the process. And it worries me because these people are out of business. I would love to grow and be a larger subcontractor for [the primes]. But since the goals have been cut, the amount of work I'm getting is so small that I'm just downsizing.

In a lot of the rural areas, most of the contracts are state funded. So, the smaller ones [Native-American owned firms] could manage aren't there anymore.

Minorities reported they are adversely impacted by the slow cycles of government work. Race amplifies barriers.

You have to have the capital to start a company and I could not have done it if I were doing it all on government work. Because you have to pay the bills. And government work, you got to chase it... For those of us that are in professional services, you know that when you see the advertisement it's already gone. So that means you have to go talk to the people and have lunch with them and do all of the things the big guys do and find out that it's coming out a year before it comes out. The one we're doing in Virginia I chased it for three years before I got it. Now most small firms can't afford to function like that. And so then when you start talking about race and all that, because African Americans, Hispanics, minorities don't have those kinds of financial resources to chase a job for three years, then you do see race reflected in the results that you're talking about. But I don't think it's directly where we just don't want to deal with minorities. It's just that who can afford to chase a job for three years? And run on cash?

Amen what he said.

D. Obtaining Private Sector Work or “No Goals” Work on an Equal Basis

Some firms outside construction reported that they were much more successful in obtaining private sector work than government contracts.

I would say no [race is not the problem], and the reason why is because in the private sector we kill it... When you get into government, because they don't have to consider fee and they don't have to look at those other things, it's more about who you know and all these other [issues].

More specialized firms, in some instances, stated that they do obtain private sector work.

We have a lot of private sector clients, too. There would just be less work overall [if there were no M/WBE program].

They will call me to be on their team even though there's no goal. But we've worked for them in the past. I've worked on six design-build projects for [firm] and I've established a good relationship with them. But, initially, it was me selling myself to them.... We have a very good working relationship with them.... I was with the Department and I established a good relationship and a good rapport, good reputation, with DOT.... My situation is unique in that when I started my firm, within two months, I was able to get a contract with the Department because I design bridges.

E. Conclusion

Consistent with other evidence reported in this Study, anecdotal interview information strongly suggests that minorities and women continue to suffer discriminatory barriers to full and fair access to NCDOT and private sector contracts and subcontracts. While not definitive proof that the Department needs to continue to implement race- and gender-conscious remedies for these impediments, the results of the personal interviews and the public meetings are the types of evidence that, especially when considered alongside the numerous pieces of statistical evidence assembled, the courts have found to be highly probative of whether NCDOT would be a passive participant in a discriminatory market area without affirmative interventions and whether race-conscious remedies are necessary to address that discrimination.

VII. Recommendations for the North Carolina Department of Transportation's Disadvantaged Business Enterprise and Minority- and Women-Owned Business Enterprise Programs

The quantitative and qualitative data in this Disparity Study for NCDOT provide a thorough examination of the evidence regarding the experiences of minority- and women-owned firms in the Department's geographic and industry markets. As required by strict scrutiny, we analyzed evidence of such firms' utilization by the Department as measured by dollars spent, as well as M/WBEs' experiences in obtaining contracts in the public and private sectors. We gathered statistical and anecdotal data to provide NCDOT with the evidence necessary to narrowly tailor its Disadvantaged Business Enterprise (DBE) Program for federal-aid contracts, as required by 49 C.F.R. Part 26. We have also provided evidence relevant to whether NCDOT has a compelling interest in remedying identified discrimination in its state-funded contracts. Based upon the results, we make the following recommendations.

A. Augment Race- and Gender-Neutral Initiatives

The courts and the DBE Program regulations require that NCDOT use race-neutral²⁴⁷ approaches to the maximum feasible extent to meet the annual DBE goal. This is a critical element of narrowly tailoring the Program, so that the burden on non-DBEs is no more than necessary to achieve the Department's remedial purposes. Increased participation by D/M/WBEs through race-neutral measures will also reduce the need to set DBE and M/WBE contract goals. We therefore suggest the following enhancements of NCDOT's current efforts, based on the business owner interviews, the input of Department staff, and national best practices for D/M/WBE programs.

1. Increase Vendor Communication and Outreach to Small Firms

Increased communication with the contracting community is critical. Owners of small firms reported difficulties in accessing information about policies and procedures as well as for particular solicitations. The Department has made significant strides towards using the Internet to provide access to information, and those efforts should be augmented, perhaps with more targeted information.

More meetings should be held with the small business community to provide information and address questions regarding upcoming opportunities. "Match making" sessions between prime contractors and subcontractors, subconsultants, suppliers and truckers (collectively "subcontractors") were also requested to increase familiarity and comfort levels between the firms. Some focus group participants suggested semi-monthly meetings with NCDOT staff and large contractors to introduce themselves and network about upcoming opportunities.

²⁴⁷ The term race-neutral as used here includes gender-neutral.

To increase the pool of firms that can be used to meet contract goals, NCDOT should conduct additional outreach to uncertified minority- and women-owned firms. The Study identified many businesses owned by minorities and women that are not DBE or M/WBE certified. The Department should aggressively pursue firms certified with other governments (cities, counties, etc.), as well as those identified through the Study, to encourage applications.

2. Increase Contract “Unbundling”

NCDOT has recognized that the size and complexity of the Department’s contracts are major impediments to D/M/WBEs and other small firms in obtaining work as prime contractors. “Unbundling” contracts into smaller segments was endorsed by several firm owners as one method to provide fair access to NCDOT’s projects. In conjunction with reduced insurance and bonding requirements where possible, smaller contracts should permit smaller firms to move from quoting solely as subcontractors to bidding as prime contractors, as well as enhance their subcontracting opportunities. Unbundling must be conducted, however, within the constraints of the need to ensure efficiency and limit costs to taxpayers. The Department should consider adding unbundling as a component in the small business elements of its DBE Program Plan.

3. Review Surety Bonding, Experience Requirements and Bidding Procedures

NCDOT should review surety bonding, insurance and experience requirements so they are no greater than necessary to protect the Department’s interests. This might include reducing or eliminating insurance requirements on smaller contracts and removing the cost of the surety bonds from the calculation of the “as read” low bidder on appropriate solicitations.

NCDOT should review qualification requirements for consultant selection, including prequalification criteria, to ensure that Small Professional Services Firms (“SPSFs”) are not unfairly disadvantaged and that there is adequate competition for Department work. For example, equivalent experience, especially that gained by working for other government agencies, should be permitted to increase access for small firms and guard against unfair incumbent advantages. Similarly, the Department could reduce the points awarded for a team that has previously worked together, as this tends to exclude new SPSFs.

4. Lengthen Solicitation Times

Lengthening the time that bidders have to prepare solicitations was recommended by many participants. Several prime contractors stated that the two-week minimum that bids must be advertised was often a very short window during which to seek DBE or M/WBE participation.

5. Adopt “Quick Pay” Policies

While the Department implements statutorily mandated prompt payment policies that require prime contractors to pay their subcontractors within 7 days of receipt of payment by NCDOT,²⁴⁸ many firms stated that cash flow needs impede the ability of DBEs to perform as prime firms. NCDOT paying prime firms more frequently—perhaps every two weeks— would assist small prime contractors and subcontractors to be more successful. As a pilot effort, the Department could implement quick pay to subcontractors as part of the SBE program.

6. Ensure Bidder Non-Discrimination and Fairly Priced Subcontractor Quotations

Some DBEs voiced concerns that prime contractors may not be soliciting their subcontractor quotes in good faith on Department projects, and failed to solicit them at all on non-goals projects. Many prime contractors reported that using certified firms increases their costs and risks. To investigate these claims, NCDOT could require bidders to maintain all subcontractor quotes received on larger projects. The prices and scopes can then be compared to evaluate whether bidders are in fact soliciting and contracting with subcontractors on a non-discriminatory basis and if DBEs cost more than White-male owned firms.²⁴⁹

Another approach would be to provide with the invitation for bid or request for proposal the scopes of work used by NCDOT to set the contract goal. This would provide guidance to prime firms on specialties on which to concentrate for making good faith efforts, as well as increase transparency about how the DBE program functions. It will be necessary to stress that firms may meet the goal using firms outside these industries and that only soliciting firm in these industries does not *per se* constitute making good faith efforts to meet the goal.

7. Continue and Enhance Supportive Services and Business Development Programs

The Department’s current supportive services and technical assistance programs were widely praised, and in our experience, are among the best in the nation. We recommend the Department continue the programs’ current elements and delivery systems. Possible enhancements could include expanding Project Legacy to more firms and to professional services firms; conducting another DBE Boot Camps; providing services to a wider range of locations; targeting African-American

²⁴⁸ N.C. Gen. Stat. § 143-134.1.

²⁴⁹ A similar program element was part of the court-approved DBE plan for the Illinois Department of Transportation. *Northern Contracting, Inc. v. Illinois Department of Transportation*, 2005 U.S. Dist. LEXIS 19868, at * 87 (Sept. 8, 2005) (“IDOT requires contractors seeking prequalification to maintain and produce solicitation records on all projects... Such evidence will assist IDOT in investigating and evaluating discrimination complaints.”).

contractors in particular to expand their industries beyond trucking and hauling; and an increased focus specifically on creating more prime contractors.

The utilization data indicate that M/WBEs are highly utilized in certain NAICS codes. These codes, however, constitute a small fraction of the Department's overall spend and are the low entry threshold but less profitable aspects of the highway construction industry. NCDOT should therefore place special focus on increasing efforts to conduct outreach and provide supportive services to expand the types of work performed by D/M/WBEs.

Finally, it would be useful to research the rates at which certified firms submit bids; their success in receiving contracts; and any barriers to their participation in the Program or on Department contracts. Perhaps a survey of firms certified by the North Carolina Unified Certification Program could be used to elicit feedback and suggestions for Program enhancements.

8. Provide Training to Bidders Regarding Program Compliance

NCDOT staff persons and prime contractors suggested regular training sessions on how to comply with the requirements of the various programs, especially those governing making good faith efforts. Many general contractors stated that the standards for establishing good faith efforts, such as how to make the contact (by fax, email, "snail" mail, certified mail) varied depending on who they asked at NCDOT. Uniformity of approach is essential to ensure fairness and support program administration.

9. Expand the Small Business Enterprise Program

The SBE Program has achieved good results. Many small firms, both DBEs and non-DBEs, praised this approach for creating opportunities to work directly with the Department. However, the limited nature of the eligible contracts, as well as the relatively low dollar limit of \$500,000, reduces the utility of this remedy to support and grow prime contractors. The Department should expand the types of contracts set aside to those that have multiple scopes and advocate for raising the limit, which is set by State statute. Further, the very low size limit for SBE eligibility should be raised perhaps to that of the DBE program— so that firms have a chance to use the program to grow beyond the "micro" stage.

NCDOT should consider adding the SBE program as an element to its DBE Program Plan to comply with the mandate of 49 C.F.R. § 26.39, which requires small business elements in the DBE program.

10. Expand the Small Professional Services Firm Program

Many SPSFs recommended that the program be expanded to implement a targeted market approach for smaller design projects, similar to that of the SBE program for construction contractors. In 2013, legislation was approved to allow proposals on

specific projects for professional services contracts of less than \$250,000 to be limited to SPSFs.²⁵⁰ We urge the Department to use this remedy to the greatest possible extent and track the participation by DBEs to evaluate its effectiveness in reducing barriers to their opportunities for these types of contracts. This approach should also be added to the DBE Program Plan under 49 C.F.R § 26.39.

11. Consider a Bonding and Financing Program for SBEs

Access to bonding and working capital are among the two largest barriers to the development and success of DBEs and small firms. Traditional underwriting standards have often excluded DBEs and small firms. One approach that has proven to be effective for some agencies is to develop a Department-sponsored bonding and financing assistance program for DBEs and certified SBEs. This goes beyond the Department's current provision of information about outside bonding resources to provide actual assistance to firms through a program consultant; it is not, however, a bonding guarantee program that places the state's credit at risk or provides direct subsidies to participants. Rather, this concept brings the commitment of a surety to provide a bond for firms that have successfully completed the program.

12. Consider Adopting a Mentor-Protégé Program

The Department should consider implementing a Mentor-Protégé Program, in conformance with 49 C.F.R. § 26.35 and the Guidelines of Appendix D to Part 26. This approach was welcomed by DBEs and several large prime contractors as a way to increase DBEs' capacities by assisting DBEs to move into non-traditional areas of work and/or compete in the marketplace outside the DBE program, through the provision of training and assistance from other firms. Interview participants cited skill sets such as estimating, understanding of and adherence to specifications, billing and scheduling as areas in need of focus. Elements should include:

- Formal program guidelines.
- A Department-approved written development plan, which clearly sets forth the objectives of the parties and their respective roles, the duration of the arrangement, a schedule for meetings and development of plans, and the services and resources to be provided by the mentor to the protégé. The development targets should be quantifiable and verifiable, and reflect objectives to increase the protégé's capacities and expand its business areas and expertise. Targets for improvement must be specified, such as increased bonding capacity, increased sales, increased areas of work specialty, etc.
- A long term and specific commitment between the parties, *e.g.*, 12 to 36 months.
- Extra credit for the mentor's use of the protégé to meet a contract goal (*e.g.*, 1.25 percent for each dollar spent).

²⁵⁰ General Assembly House Bill 200, Session Law 2011-145.

- A fee schedule to cover the direct and indirect cost for services provided by the mentor for specific training and assistance to the protégé.
- Regular review by the Department of compliance with the plan and progress towards meeting its objectives. Failure to adhere to the terms of the plan would be grounds for termination from the Program.

A Program for federally-assisted contracts will require approval by FHWA.

13. Appoint an Industry Committee for the Programs

There was support for a committee to serve as a forum and advisory group for the Department regarding the operations of the programs. Membership could be composed of Department representatives with responsibility for contracting and program implementation; representatives from highway industry groups such as the United Minority Contractors of North Carolina, the North Carolina Indian Economic Development Institute, the Hispanic Contractors Association of the Carolinas, the Association of General Contractors, and the Association of Consultant Engineers Council. Individual business owners that can provide a variety of points of view might also serve on the committee. Its charge could encompass issues such as contract goal setting, good faith efforts administration, contract performance monitoring and business development. While advisory in nature, the committee could be a valuable source of ideas and information and provide a regular channel for communication between various groups and between the industry and the Department regarding the programs. A quarterly meeting schedule was suggested, where Program issues and updates would be explained and discussed.

14. Implement Electronic Contracting Data Collection and Monitoring Systems

A critical element of this Study and a major challenge was data collection of full and complete prime contract and associated subcontractor records. As is very common, NCDOT did not have all the information needed for the inclusion of subcontractor payments in the analysis. In addition, because the Department is responsible for compliance with the DBE program by subrecipient agencies to which it passes through federal funds, it also needs to collect full records on the contracts and subcontracts awarded through its grants.

Based on our experience, we recommend the Department procure and implement an electronic data collection system. It should have at least the following functionality:

- Contract compliance for certified and non-certified subcontract payments for all tiers, with funding sources and codes; prompt payment status; task order management; complex contracts such as job order contracts, design/build, construction manager at risk, multi-phase, etc.; and subrecipient contract monitoring, including the use of all subcontractors regardless of certification status.

- Full contact information for all firms, including email addresses, NAICS codes, and race and gender ownership.
- Utilization plan capture for prime contractor's submission of subcontractor utilization plans, including real-time verification of certification status and certified work codes; bid tracking; and proposed utilization/goal validation.
- Contract/project-specific goal setting using the data from this Study.
- Certification application processing and directory management.
- An online application for DBE, M/WBE, SBE and SPSF certification that supports electronic and hardcopy supporting documents.
- Outreach tools for eBlasts and related communications and event management for tracking registration and attendance.
- Spend analysis of informal expenditures, such as those made with P-cards or on purchase orders, to determine DBE, M/WBE, SBE and SPSF utilization.
- An integrated email and fax notification and reminder engine to notify users of required actions.
- Access by authorized NCDOT staff, subrecipients, contractors, and applicants to perform all necessary activities.
- Import/export integration with existing systems to exchange contract, payment, and vendor data.

15. Increase Oversight of Subrecipients Agencies

As a condition of its receipts of federal funds, the Department is responsible for monitoring the performance of its subrecipients.²⁵¹ It became apparent during our efforts to collect contract data from NCDOT's subrecipients that many grantees were not properly collecting data or were only marginally aware of their responsibilities under Part 26. We suggest the Department conduct mandatory training for grantees about the regulations, including the development and administration of contract goals; proper good faith efforts documentation and waiver request criteria and processes; contract performance standards; reporting responsibilities and protocols; and outreach to DBEs. Not only is this needed for compliance with USDOT regulations, but also grantee contracts were often smaller and less complex than Department-let projects, and so may provide additional opportunities for DBEs to participate, especially as prime contractors.

B. Continue to Implement a Narrowly Tailored M/WBE Program

The Study's results support the determination that NCDOT has a strong basis in evidence to continue to implement its M/WBE Program for its state-funded contracts.²⁵² The record— both quantitative and anecdotal— establishes that M/WBEs

²⁵¹ 49 C.F.R. § 26.37.

²⁵² As discussed in Chapter II, the courts have held that Congress has determined that there is a compelling interest in remedying the effects of discrimination against minority- and women-owned firms in the market for federal-aid transportation contracts and therefore recipients of federal funds are not required to establish this prong of strict scrutiny.

in the Department's market area continue to experience significant disparities in their access to the Department's state-funded contracts and private sector contracts and to those factors necessary for business success. This was true for all racial and ethnic groups, including Native Americans and Asians, and White females, leading to the inference that discrimination is a significant factor in those disparities. We therefore recommend the continued implementation of the program and the inclusion of all groups for credit towards meeting contract goals.

Minorities and women also experienced large and statistically significant disparities in their access to opportunities in the overall construction economy. The analysis in Chapter V of economy-wide disparities barriers in NCDOT's market supports the inference that race and gender remain barriers to parity of minority- and women-owned firms, and that without intervention in the market, the Department may be a passive participant. Further, individuals recounted their experiences in Chapter VI with discriminatory barriers to their full and fair participation in NCDOT's contracting activities. The Study provides quantitative and qualitative evidence of discriminatory practices and attitudes that impede opportunities for minorities and women on all Department projects, regardless of the funding source.

Even with the use of contract goals, M/WBEs suffered substantively and statistically significant disparities on state-funded jobs. Without the use of contract goals to level the playing field, NCDOT might function as a "passive participant" in the "market failure" of discrimination.

This Study follows in the footsteps of two other disparity studies of the state of minority- and women-owned business in North Carolina, the results of which show that the issues discussed in the present Study are of long standing. Barriers to the proportionate participation of DBEs in North Carolina transportation work are stubborn, and race-conscious measures remain an essential ingredient of any strategy to combat the continuing effects of discrimination in the state's transportation marketplace.

C. Use the Study to Set the Overall Annual DBE Goal

49 C.F.R. Part 26 requires that NCDOT adopt an annual overall goal for DBE participation in its federally-funded projects covering a three year period. This Study's availability estimates in Chapter IV should be consulted to determine the Step 1 base figure for the relative availability of DBEs required by § 26.45(c). Our custom census is an alternative method permitted under § 26.45(c)(5), and is the only approach that has received repeated judicial approval.

The statistical disparities in Chapter V in the rates at which DBEs form businesses can serve as the basis for a Step 2 in § 26.45(d) adjustment to reflect the level of DBE availability that would be expected in the absence of discrimination. This is "demonstrable evidence that is logically and directly related to the effect for which the adjustment is sought."²⁵³

²⁵³ 49 CFR § 26.45(d)(3); see also §23.51.

If the Department desires to set an annual goal for state-funded contracts, it should adopt the federal DBE annual goal, disaggregated into a goal for MBEs and one for WBEs. While a single goal as in the DBE program is permissible, in view of the large variance in the disparity indices between those for Blacks, Hispanics, Asians and Native Americans, on the one hand, and those for White women, on the other hand, we suggest the use of two goals to focus efforts on the different situations of the various groups and help to promote equitable distribution of the dollars in the program.

D. Use the Study to Set DBE and MBE and WBE Contract Goals

As discussed in Chapter II of the Study, the Department's constitutional responsibility is to ensure that its implementation of 49 C.F.R. Part 26 and of its program for state-funded contracts is narrowly tailored to its geographic and procurement marketplace. The highly detailed availability estimates in the Study can serve as the starting point for contract goal setting. NCDOT can weigh the estimated scopes of the contract by the availability of D/M/WBEs in those scopes as estimated in the Study, and then adjust the result based on current market conditions.

In addition, we recommend the Department include professional services firms in its use of contract goals. While useful, the SPSF program has not eliminated disparities for minority- and women-owned firms. The FHWA-approved DBE program document does not state that professional services firms are excluded so this limitation has not been approved by FHWA, and most other USDOT recipients that employ race-conscious contract goals include these industries. The same contract award and contract monitoring standards and processes would be applied. Where there is insufficient DBE availability, or when DBE utilization reaches the overall goal, the current approach of not setting a contract goal but encouraging the use of SPSFs could be used. We recognize that small, White-male owned firms have benefitted from the program, so as discussed above, we suggest the use of race- and gender-neutral prime consultant targeted market contracts for certified firms.

We urge NCDOT to bid some contracts that it determines have significant opportunities for DBE or M/WBE participation without goals. These "control contracts" can illuminate whether certified firms are used or even solicited in the absence of goals, as suggested by the Study data. The development of some unremediated markets data will be probative of whether the programs remain needed to level the playing field for minorities and women.

The Department might consider adopting a flexible approach for its state-funded projects regarding whether to set a single goal, as it does for federal-aid jobs, or separate goals for MBEs and WBEs on particular contracts. This determination would be guided by the scopes of work, the location and the certified firms available to work on the contract. This may provide additional opportunities for DBEs to be used by prime contractors who otherwise would seek waivers of the separate goal.

E. Develop Performance Measures for Program Success

The Department should develop quantitative performance measures for certified firms and overall success of the programs to evaluate their effectiveness in reducing the systemic barriers identified by the Study. In addition to meeting the overall, annual goals, possible benchmarks might be:

- The number of bids or proposals and the dollar amount of the awards and the goal shortfall where the bidder submitted good faith efforts to meet the contract goal;
- The number and dollar amount of bids or proposals rejected as non-responsive for failure to make good faith efforts to meet the goal;
- The number, type and dollar amount of DBE substitutions during contract performance;
- Increased bidding by certified firms;
- Increased prime contract awards to certified firms;
- Increased “capacity” of certified firms as measured by bonding limits, size of jobs, profitability, etc.; and
- “Graduation” rates, and the experiences of firms that exit the programs.

F. Conduct Regular Program Reviews

To meet the requirements of strict constitutional scrutiny and ensure best practices in program administration are applied, NCDOT should continue to require that the evidentiary basis for the Program for state-funded contracts be reviewed approximately every five years, and that only if there is strong evidence of discrimination should it be reauthorized. The Program’s goals and operations must also be evaluated to ensure that they remain narrowly tailored to current evidence. Another sunset date for the M/WBE Program, when it will end unless reauthorized, should be adopted to meet the constitutional requirement of narrow tailoring that race-conscious measures be used only when necessary. A new disparity study or other applicable research should be commissioned in time to meet the sunset date.

Appendix A: Master M/W/DBE Directory

To supplement race and sex information in Dun & Bradstreet/Hoovers used to estimate M/W/DBE availability in NCDOT's market area, we contacted 132 organizations that might have lists of minority, women and disadvantaged firms. We included national entities and organizations from neighboring states because of the possibility that firms on these lists might be doing business with the Department. These lists were used to supplement data on the race and sex of firms' ownership to improve the accuracy and coverage of race and sex assignments to estimate M/WBE availability.

We obtained lists from the following entities:

- American Indian - Lumbee Tribe
- American Indian Chamber of Commerce of North Carolina
- Business Research Services
- Charlotte Chamber
- City of Charleston
- City of Clarksville
- City of Memphis
- City of Nashville
- Diversity Information Resources
- Hispanic Contractors Association of the Carolinas
- Kentucky DOT
- Memphis Shelby County Int. Airport
- Metropolitan Nashville Airport Authority
- National Association of Women in Construction
- North Carolina DOT
- North Carolina HUB
- North Carolina Indian Economic Development Initiative, Inc.
- Northern Virginia Black Chamber of Commerce
- Small Business Administration
- South Carolina DOT
- South Carolina Governor's Office
- Tennessee Black Pages
- Tennessee DOT
- Tennessee Governor's Office of Diversity Business
- United Indian Development Association NC
- Eastern Band of Cherokee Planning and Development Office
- Sequoyah Fund

The following entities had relevant lists of MWDBEs that were duplicates of the lists we obtained:

- American Indian Chamber of Commerce of South Carolina
- Chattanooga Airport
- City of Asheville
- City of Charlotte - Mecklenburg County
- City of Chattanooga
- City of Durham
- City of Fayetteville
- City of Greensboro
- City of Raleigh
- City of Richmond
- City of Shelbyville
- City of Wilmington
- City of Winston-Salem
- Duke University
- Guilford County Schools
- Japan America Society of Tennessee Inc.
- Mid-South Minority Business Council
- New Hanover County
- North Carolina State University
- Raleigh-Durham Int. Airport
- The North Carolina Commission of Indian Affairs
- University of Tennessee
- SBTDC at UNC Pembroke
- Robeson Community College Small Business Center

The following entities either did not have a list of MWDBEs or the list did not include race and gender information:

- Black Business Association of Memphis
- Charlotte Mecklenburg Black Chamber of Commerce
- Charlottesville Regional Chamber of Commerce
- City of Columbia
- City of Columbia
- City of Columbia Office of Business Opportunities
- City of Franklin
- City of Jackson
- City of Kingsport
- City of Norfolk
- City of Roanoke

Greater Memphis Black Chamber of Commerce
Greenville Chamber of Commerce
Hispanic Chamber of Commerce of East Tennessee
Insight Center for Community Economic Development
Memphis Area Minority Contractors
Nashville Minority Business Center
National Association of Minority Contractors
North Carolina Society of Hispanic Professionals
North Carolina WMBE Coordinators' Network
North Carolina Women United
South Carolina Hispanic Chamber of Commerce
Tennessee Business Roundtable
Tennessee Chinese Chamber of Commerce
Tennessee Department of Treasury Small and Minority Owned Business Assistance Program
Tennessee Multicultural Chamber of Commerce
The Kroger Co.
U.S. Women's Chamber of Commerce
Virginia DOT
Women Business Owners Network of Cary
Pembroke Chamber
Thomas Family Center for Entrepreneurship

We were unable to obtain lists from the following entities:

Access America Transport
Black Business Directory
Blue Cross Blue Shield of TN
Carolinas Minority Supplier Development Council
Center for Women's Business Research
City of Dyersburg
City of Greenville
City of Knoxville
City of Lebanon
City of Maryville
Council of American Minority Professionals
East Tennessee Chinese Association
Greater Memphis United Chinese Association
Jackson Madison County African American Chamber of Commerce
Latin American Chamber of Commerce Charlotte
Latin Business Association

Nashville Area Hispanic Chamber of Commerce
Nashville Black Chamber of Commerce
National Association of Asian American Professionals
National Association of Women Business Owners-Charlotte Chapter
National Association of Women Business Owners-Raleigh Chapter
National Association of Women Business Owners-Memphis Chapter
National Association of Women in Construction
New Carolina - SC's Council on Competitiveness
North Carolina Chinese Business Association
North Carolina Hispanic Chamber of Commerce
North Carolina Institute of Minority Economic Development
South Carolina Black Chamber of Commerce
Tennessee Latin American Chamber of Commerce
The Alliance for Women
The Metrolina Minority Contractors Association
United Minority Contractors of North Carolina
Virginia Asian Chamber of Commerce
Virginia Department of Minority Business Enterprise
Women's Business Enterprise National Council

The following entities declined to provide either their list or the race and gender information in their list:

American Business Women's Association
Beaufort County Black Chamber of Commerce
Carolinas Asian-American Chamber of Commerce
Greater Women's Business Council
National Women Business Owners Corporation
South Carolina Women in Business
Tennessee Minority Supplier Development Council, Inc.
University of North Carolina
Women in Business of Southeastern North Carolina

Appendix B: Further Explanation of the Multiple Regression Analysis

As discussed in the Study, multiple regression statistical techniques seek to explore the relationship between a set of independent variables and a dependent variable. The following equation is a way to visualize this relationship:

$$DV = f(D, I, O),$$

where DV is the dependent variable; D is a set of demographic variables; I is a set of industry & occupation variables; and O is a set of other independent variables.

The estimation process takes this equation and transforms it into:

$$DV = C + (\beta_1 * D) + (\beta_2 * I) + (\beta_3 * O) + \mu,$$

where C is the constant term; β_1 , β_2 and β_3 are coefficients, and μ is the random error term.

The statistical technique seeks to estimate the values of the constant term and the coefficients.

In order to complete the estimation, the set of independent variables must be operationalized. For demographic variables, the estimation used race, gender and age. For industry and occupation variables, the relevant industry and occupation were utilized. For the other variables, education and the state of residence were used.

A coefficient was estimated for each independent variable. The broad idea is that a person's wage or earnings is dependent upon the person's race, gender, age, industry, occupation, and education. An additional factor was included: because of our interest in the impact of race and gender on wages and earnings, we made the assumption that the impact of those variables might vary from state to state (*i.e.*, the impact of being Black on wages is different in North Carolina than it is in Alabama). We therefore developed new variables that would show the interaction between race and gender and North Carolina. The coefficient for the new variable showed the impact of being a member of that race or gender in North Carolina. Consequently, the impact of race or gender on wages or earnings had two components: the national coefficient and the state-specific impact.

Appendix C: Further Explanation of the Probit Regression Analysis

Probit regression is a special type of regression analysis. While there are many differences between the underlying estimation techniques used in the probit regression and the standard regression analysis, the main differences from the lay person's point of view lie in the nature of the dependent variable and the interpretation of the coefficients associated with the independent variables.

The basic model looks the same:

$$DV = f(D, I, O),$$

where DV is the dependent variable; D is a set of demographic variables; I is a set of industry & occupation variables; and O is a set of other independent variables.

The estimation process takes this equation and transforms it into:

$$DV = C + (\beta_1 * D) + (\beta_2 * I) + (\beta_3 * O) + \mu,$$

where C is the constant term; β_1 , β_2 , and β_3 are coefficients, and μ is the random error term.

In the standard regression model, the dependent variable is continuous and can take on many values; in the probit model, the dependent variable is dichotomous and can take on only two values: zero or one. For instance, in the standard regression analysis, we may be exploring the impact of a change in some independent variable on wages. In this case, the value of one's wage might be any non-negative number. In contrast, in the probit regression analysis, the exploration might be the impact of a change in some independent variable on the probability that some event occurs. For instance, the question might be how an individual's gender impacts the probability of that person forming a business. In this case, the dependent variable has two values: zero, if a business is not formed; one, if a business is formed.

The second significant difference— the interpretation of the independent variables' coefficients— is fairly straight-forward in the standard regression model: the unit change in the independent variable impacts the dependent variable by the amount of the coefficient.²⁵⁴ However, in the probit model, the initial coefficients cannot be interpreted this way. One additional step— which can be computed easily by most statistical packages— must be undertaken in order to yield a result that indicates how the change in the independent

²⁵⁴ The exact interpretation depends upon the functional form of the model.

variable affects the probability of an event (e.g. business formation) occurs. For instance, using our previous example of the impact on gender on business formation, if the independent variable was WOMAN (with a value of 0 if the individual was male and 1 if the individual was female) and the final transformation of the coefficient of WOMAN was -0.12, we would interpret this to mean that women have a 12% lower probability of forming a business compared to men.

Appendix D: Significance Levels

Many tables in this Study contain asterisks indicating a number has statistical significance at 0.001 or 0.01 levels and the body of the Study repeats these descriptions. While the use of the term seems important, it is not self-evident what it means. This Appendix provides a general explanation of significance levels.

This Study seeks to address the question whether non-Whites and White women received disparate treatment in the economy relative to White males. From a statistical viewpoint, this primary question has two sub-questions:

- What is the relationship between the independent variable and the dependent variable?
- What is the probability that the relationship between the independent variable and the dependent variable is equal to zero?

For example, an important question facing the State of North Carolina as it explores the necessity of intervening in the marketplace to ensure it is not a passive participant in the continuation of historic and contemporary bias is do non-Whites and White women receive lower wages than White men? As discussed in Appendix A, one way to uncover the relationship between the dependent variable (*e.g.*, wages) and the independent variable (*e.g.*, non-Whites) is through multiple regression analysis. An example helps to explain this concept.

Let us say this analysis determines that non-Whites receive wages that are 35% less than White men after controlling for other factors, such as education and industry, which might account for the differences in wages. However, this finding is only an estimate of the relationship between the independent variable (*e.g.*, non-Whites) and the dependent variable (*e.g.*, wages) – the first sub-question. It is still important to determine how accurate is that estimation, that is, what is the probability the estimated relationship is equal to zero – the second sub-question.

To resolve the second sub-question, statistical hypothesis tests are utilized. Hypothesis testing assumes that there is no relationship between belonging to a particular demographic group and the level of economic utilization relative to White men (*e.g.*, non-Whites earn identical wages compared to White men or non-Whites earn 0% less than White men). This sometimes is called the null hypothesis. We then calculate a confidence interval to find explore the probability that the observed relationship (*e.g.*, - 35%) is between 0 and minus that confidence interval.²⁵⁵ The confidence interval will vary

²⁵⁵ Because 0 can only be greater than -35%, we only speak of “minus the confidence level”. This is a one-tailed hypothesis test. If, in another example, the observed relationship could be

depending upon the level of confidence (statistical significance) we wish to have in our conclusion. Hence, a statistical significance of 99% would have a broader confidence interval than statistical significance of 95%. Once a confidence interval is established, if -35% lies outside of that interval, we can assert the observed relationship (e.g., 35%) is accurate at the appropriate level of statistical significance.

above or below the hypothesized value, then we would say “plus or minus the confidence level” and this would be a two-tailed test.

Appendix E: Survey of Business Owners^{256, 257}

Table E1: Data on Firm Performance Measures, Construction, Survey of Business Owners, 2007

Demographic Group	Total Number of Firms	Sales & Receipts - All Firms (\$1,000)	Firms with Paid Employees	Sales & Receipts - All Firms with Paid Employees (\$1,000)	Number of Paid Employees	Annual Payroll
Blacks	5,951	390,966	458	241,581	2,261	46,358
Latinos	6,125	973,507	616	471,785	3,805	97,625
Native Americans	2,202	341,029	278	221,725	1,715	53,961
Asians	723	179,169	147	135,019	415	15,515
Non-Whites	15,235	1,715,887	1,402	952,471	7,822	201,400
White Women	8,985	3,606,237	1,792	3,281,812	17,900	667,794
White Men	83,694	38,470,489	17,956	34,638,472	161,394	6,136,547
Equally Non-White & White	—	—	—	—	—	—
Equally Women & Men	15,953	6,046,252	5,165	5,114,326	24,726	854,977
Firms Not Classifiable	2,348	10,677,984	1,932	10,605,718	37,893	1,710,765
All Firms	127,515	60,582,510	28,309	54,632,931	250,070	9,581,499

Source: CHA calculations from the Survey of Business Owners

²⁵⁶ These data include firms whose ownership could not be classified.

²⁵⁷ For a variety of reasons, the Survey of Business Owners did not result in reliable data for firms that were equally owned by whites and non-whites.

Table E2: Data on Firm Performance Measures (%). Construction, Survey of Business Owners, 2007

Demographic Group	Total Number of Firms	Sales & Receipts - All Firms (\$1,000)	Firms with Paid Employees	Sales & Receipts - All Firms with Paid Employees (\$1,000)	Number of Paid Employees	Annual Payroll
Blacks	4.67%	0.65%	1.62%	0.44%	0.90%	0.48%
Latinos	4.80%	1.61%	2.18%	0.86%	1.52%	1.02%
Native Americans	1.73%	0.56%	0.98%	0.41%	0.69%	0.56%
Asians	0.57%	0.30%	0.52%	0.25%	0.17%	0.16%
Non-Whites	11.95%	2.83%	4.95%	1.74%	3.13%	2.10%
White Women	7.05%	5.95%	6.33%	6.01%	7.16%	6.97%
White Men	65.63%	63.50%	63.43%	63.40%	64.54%	64.05%
Equally Non-White & White	—	—	—	—	—	—
Equally Women & Men	12.51%	9.98%	18.25%	9.36%	9.89%	8.92%
Firms Not Classifiable	1.84%	17.63%	6.82%	19.41%	15.15%	17.85%
All Firms	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: CHA calculations from the Survey of Business Owners

Table E3: Data on Firm Performance Measures, Professional, Scientific, and Technical Services, Survey of Business Owners, 2007

Demographic Group	Total Number of Firms	Sales & Receipts - All Firms (\$1,000)	Firms with Paid Employees	Sales & Receipts - All Firms with Paid Employees (\$1,000)	Number of Paid Employees	Annual Payroll
Blacks	6,605	352,903	527	256,021	1,890	70,675
Latinos	2,130	130,004	176	84,292	780	30,756
Native Americans	520	36,322	90	30,008	287	8,197
Asians	1,968	456,286	472	403,917	2,364	127,706
Non-Whites	11,271	870,575	1,159	688,791	4,977	227,034
White Women	22,773	2,090,657	3,695	1,625,418	14,225	582,456
White Men	46,463	11,575,484	11,913	10,219,945	84,648	3,979,927
Equally Non-White & White	—	—	—	—	—	—
Equally Women & Men	11,647	1,310,768	2,485	976,046	9,210	340,585
Firms Not Classifiable	2,052	13,732,266	1,685	13,674,923	78,464	5,744,179
All Firms	95,103	29,624,079	20,981	27,223,919	191,826	10,892,476

Source: CHA calculations from the Survey of Business Owners

Table E4: Data on Firm Performance Measures (%), Professional, Scientific, and Technical Services, Survey of Business Owners, 2007

Demographic Group	Total Number of Firms	Sales & Receipts - All Firms (\$1,000)	Firms with Paid Employees	Sales & Receipts - All Firms with Paid Employees (\$1,000)	Number of Paid Employees	Annual Payroll
Blacks	6.95%	1.19%	2.51%	0.94%	0.99%	0.65%
Latinos	2.24%	0.44%	0.84%	0.31%	0.41%	0.28%
Native Americans	0.55%	0.12%	0.43%	0.11%	0.15%	0.08%
Asians	2.07%	1.54%	2.25%	1.48%	1.23%	1.17%
Non-Whites	11.85%	2.94%	5.52%	2.53%	2.59%	2.08%
White Women	23.95%	7.06%	17.61%	5.97%	7.42%	5.35%
White Men	48.86%	39.07%	56.78%	37.54%	44.13%	36.54%
Equally Non-White & White	—	—	—	—	—	—
Equally Women & Men	12.25%	4.42%	11.84%	3.59%	4.80%	3.13%
Firms Not Classifiable	2.16%	46.36%	8.03%	50.23%	40.90%	52.74%
All Firms	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: CHA calculations from the Survey of Business Owners

Appendix F: Additional Data from the American Community Survey, 2008-2012

**Table F1: Partial Results from Log-linear Regression Analysis:
Dependent Variable: Logarithm of Wages, Construction**

Independent Variable	Coefficient
Black	-.37***
Latino	-.152***
Native American	-.337***
Asian/Pacific Islander	-.224***
Other	-.152***
White Women	-.374***
NC_Black	.112***
NC_Latino	.124***
NC_Native American	-0.029
NC_Asian/Pacific Islander	-0.0888
NC_Other	0.558
NC_White Women	.0778*
Adjusted R-Squared	0.267
Legend: * p<0.05; ** p<0.01; ***p<0.001	

Source: CHA calculations from the American Community Survey

**Table F2: Partial Results from Log-linear Regression Analysis:
Dependent Variable: Logarithm of Wages, Construction-related Services**

Independent Variable	Coefficient
Black	-.245***
Latino	-.201***
Native American	-.302***
Asian/Pacific Islander	-.198***
Other	-.141*
White Women	-.329***
NC_Black	-0.0825
NC_Latino	-0.0122
NC_Native American	0.56
NC_Asian/Pacific Islander	.251*
NC_Other	(omitted)
NC_White Women	-0.0367
Adjusted R-Squared	0.403

Source: CHA calculations from the American Community Survey

**Table F3: Partial Results from Log-linear Regression Analysis:
Dependent Variable: Logarithm of Business Earnings, Construction**

Independent Variable	Coefficient
Black	-.441***
Latino	-.11***
Native American	-.455***
Asian/Pacific Islander	-.154***
Other	-0.225
White Women	-.495***
NC_Black	-.242**
NC_Latino	.213*
NC_Native American	.658***
NC_Asian/Pacific Islander	0.283
NC_Other	0.0279
NC_White Women	-.259*
Adjusted R-Squared	0.0728

Source: CHA calculations from the American Community Survey

**Table F4: Partial Results from Log-linear Regression Analysis:
Dependent Variable: Logarithm of Business Earnings, Construction-related Services**

Independent Variable	Coefficient
Black	-0.217
Latino	-0.0342
Native American	-0.635
Asian/Pacific Islander	-.288**
Other	-0.624
White Women	-.711***
NC_Black	0.548
NC_Latino	-0.248
NC_Native American	(omitted)
NC_Asian/Pacific Islander	(omitted)
NC_Other	(omitted)
NC_White Women	-0.378
Adjusted R-Squared	0.0826
Legend: * p<0.05; ** p<0.01; ***p<0.001	

Source: CHA calculations from the American Community Survey

**Table F5: Partial Results from Probit Regression Analysis:
Dependent Variable: Probability of Forming a Business, Construction**

Independent Variable	Coefficient
Black	-0.297
Latino	-0.207
Native American	-0.367
Asian/Pacific Islander	-0.035
Other	-0.023
White Women	-0.076
NC_Black	-0.041
NC_Latino	-0.453
NC_Native American	0.276
NC_Asian/Pacific Islander	-0.393
NC_Other	0.441
NC_White Women	-0.297
Pseudo R-Squared	0.0728

Source: CHA calculations from the American Community Survey

**Table F6: Partial Results from Probit Regression Analysis:
 Dependent Variable: Probability of Forming a Business, Construction-
 related Services**

Independent Variable	Coefficient
Black	-0.316
Latino	-0.051
Native American	0.085
Asian/Pacific Islander	-0.304
Other	-0.355
White Women	-0.018
NC_Black	-0.158
NC_Latino	-0.568
NC_Native American	(omitted)
NC_Asian/Pacific Islander	-0.841
NC_Other	2.754
NC_White Women	0.038
Pseudo R-Squared	0.1298

Source: CHA calculations from the American Community Survey

Appendix G: North American Industry Classification System

North Carolina Department of Transportation's Product Market

NAICS Code	Subsector
236220	Commercial and Institutional Building Construction
237110	Water and Sewer Line and Related Structures Construction
237310	Highway, Street, and Bridge Construction
237990	Other Heavy and Civil Engineering Construction
238110	Poured Concrete Foundation and Structure Contractors
238120	Structural Steel and Precast Concrete Contractors
238210	Electrical Contractors and Other Wiring Installation Contractors
238910	Site Preparation Contractors
238990	All Other Specialty Trade Contractors
327320	Ready-Mix Concrete Manufacturing
327390	Other Concrete Product Manufacturing
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers
423830	Industrial Machinery and Equipment Merchant Wholesalers
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers
484110	General Freight Trucking, Local
484220	Specialized Freight (except Used Goods) Trucking, Local
518210	Data Processing, Hosting, and Related Services
532299	All Other Consumer Goods Rental
541330	Engineering Services
561730	Landscaping Services
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance