

Metropolitan Nashville Airport Authority
DISPARITY STUDY
2014



About the Study Team

Colette Holt & Associates (“CHA”) is a national law and consulting firm specializing in disparity studies, affirmative action contracting programs, expert witness services, compliance monitoring and strategic development related to inclusion, diversity and affirmative action. Founded in 1994, it is led by Colette Holt, J.D., a nationally recognized attorney and expert. In addition to Ms. Holt, the firm consists of Steven C Pitts, Ph. D., who serves as the team’s economist and statistician, and Robert C. Ashby, J.D., former Deputy Counsel at the US Department of Transportation, who serves as special counsel. Denise Oliver, B.S. and Katherine Wiggins, B.A., served as Research Assistants. CHA is certified as a Disadvantaged Business Enterprise, Minority-Owned Business Enterprise and a Woman-Owned Business Enterprise by numerous agencies.

Abaci Research & Consulting, LLC (“ARC”) is a national firm specializing in data collection and management for disparity studies and other research related to contracting affirmative action programs. Its President, Kim Stewart, has almost a decade of experience supporting legally defensible disparity studies and serving as Assistant Project Director. Wesley Stewart assisted with all aspects of the Study. ARC is certified as a Disadvantaged Business Enterprise and a Woman-Owned Business Enterprise by several agencies.

Katcher Vaughn & Bailey Public Relations, Inc. (“KVBPR”), headed by Aileen Katcher, was the local subconsultant on this Study, and was responsible for outreach and assistance with anecdotal data collection. KVBPR provides a wide array of services that includes strategic planning, materials development, publicity campaigns, integrated marketing campaigns, digital and social media management and grassroots education and advocacy. KVBPR is certified as a Disadvantage Business Enterprise by the Tennessee Unified Certification Program.

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I. Executive Summary

Colette Holt & Associates was retained by the Metropolitan Nashville Airport Authority (“MNAA, Authority of Airport”) in 2012 to perform a study of possible disparities in access to the agency’s prime contracting and associated subcontracting opportunities on the basis of race and gender. We explored whether disadvantaged Minority-Owned Business Enterprises (“MBEs”) and Woman-Owned Business Enterprises (“WBEs”), and Disadvantaged Business Enterprises (“DBEs”) on federal-aid contracts (collectively, “D/M/WBEs”), have equal access to Authority contracts, and if not, what remedies might be appropriate to redress the barriers created by race or gender discrimination.

A. Study Methodology and Data

The methodology for this Study embodies the constitutional principles of *City of Richmond v. Croson*, 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.

The Study 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 MNAA procures goods and services?
- What has been MNAA’s utilization of D/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 D/M/WBEs compared to White male-owned firms in the Airport’s markets?
- Are there disparities between the availability of D/M/WBEs and their utilization on MNAA contracts? Do any disparities vary based on race, ethnicity or gender, or industry?
- What is the experience of D/M/WBEs compared to White male-owned firms in the agency’s markets throughout the wider Tennessee 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 Authority's markets? What barriers have they encountered, if any, based on race or gender?
- What are the elements of the Authority's DBE program and S/M/WBE Program? 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 D/M/WBEs and non-D/M/WBEs in seeking Airport work? What has been the effect of the DBE program and the S/M/WBE program? What race- and gender-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 program and support inclusion?

To address these questions, we examined quantitative and qualitative evidence. The study's Final File examined contracts for construction, construction-related services, services and goods purchasing awarded between 2008 and 2012 totaling approximately \$274 million.

We determined whether there is a disparity between the availability of D/M/WBEs in MNAA's markets, and the utilization of these firms, both in the Authority'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 M/WBEs form businesses and their earnings from such businesses compared to similar non-M/WBEs, to shed light on the effects of capacity variables like age of the firm, size, experience, etc. We reviewed existing literature on discrimination in access to business and human capital likely to affect opportunities for M/WBEs in Tennessee's markets.

We gathered anecdotal data on D/M/WBEs through focus groups with business owners and community leaders, and interviews with Authority staff. We also evaluated MNAA's DBE program and its Small, Minority and Women-Owned Business Enterprise ("SMWBE") program for their effectiveness and conformance with constitutional parameters, the regulatory mandates of 49 C.F.R. Part 26, and national standards for D/M/WBE initiatives.

Based on the results of these extensive analyses, we make recommendations about how to narrowly tailor the DBE program, and whether a constitutional basis exists for continuing the use of narrowly tailored race- and gender-based contracting efforts for locally-funded contracts. We also discuss possible race- and gender-neutral measures to reduce contracting barriers; compliance with the regulatory requirements of the DBE program and strict scrutiny, including annual and contract goals; the use of contract

goals on Federal Aviation administration (“FAA”) and locally-funded contracts; and effective program design and administration, including data collection enhancements.

B. Study Findings

Overall, we found extensive evidence that discrimination on the basis of race and gender continues to operate in MNAAs’ market areas and that disparities exist between the availability of M/WBEs and their utilization on agency contracts and associated subcontracts, as well as throughout the wider Tennessee economy. In our judgment, the Authority has a strong basis in evidence to continue its SMWBE program and to employ narrowly tailored remedies in both the local program and the DBE program to ameliorate discrimination.

1. DBE and SMWBE Program Elements and Implementation

As a recipient of US Department of Transportation (“USDOT”) funds, MNAAs are required as a condition of receipt to implement a DBE Program in compliance with 49 C.F.R. Part 26. MNAAs also implement a Small, Minority- and Women-Owned Business (“SMWBE”) race- and gender-conscious program for its locally-funded contracts. The current FAA-approved DBE goal is 7.5 percent and the SMWBE goals are 17.74 percent for construction; 8.41 percent for professional services; and 1.82 percent for goods and services.

The SMWBE program applies many of the elements of the DBE program, with two important differences:

1. MNAAs do not impose an economic disadvantage test.
2. Firms must have a significant business presence in the Nashville Metropolitan Area.

In addition to the elements of the programs such as contract goals setting, evaluation of bids and proposals, contract performance monitoring, etc., BDD also administers an Emerging Contractors Program, as well as a Mentor-Protégé program.

To evaluate the implementation of these elements and whether they are narrowly tailored, we interviewed 51 firm owners and representatives, as well as MNAAs’ staff members. We solicited input about their experiences and suggestions for changes or improvements. Topics included:

- MNAAs’ overall programs: D/W/WBEs reported that they get work from MNAAs because of the DBE and SMWBE programs, in contrast to other local agencies. The Authority’s electronic data collection and certification system was reported to work well for DBEs. A few participants stated that BDD needs more authority and autonomy to advance the Programs and serve as advocates for D/M/WBEs.
- Access to information about MNAAs’ contracting processes, program elements and upcoming opportunities: Some smaller firms stated that it was difficult to get information about why their bids did not conform to Authority requirements beyond the price.

- Outreach to D/M/WBEs: There was definite interest in attending more frequent and targeted networking events with Airport personnel.
- Bonding and insurance requirements: Several interviewees, both D/M/WBEs and prime contractors, stated that the Airport needs to review its bonding and insurance requirements to reduce the burdens on small firms. Authority staff agreed that additional bonding assistance is needed.
- Unbundling contracts: The size of the contracts was a major barrier for small firms, and many participants listed breaking contracts into smaller units as an important measure to assist all small firms to obtain Airport work, especially as prime contractors.
- Access to prime contract opportunities: There was broad support for a race- and gender-neutral small business setaside on smaller contracts, where only small firms would be eligible to submit bids or proposals. This approach is specifically listed as an acceptable race-neutral small business element in the DBE Program regulations.
- Mentor-protégé relationships: DBEs who had participated in the Airport's current Mentor-Protégé program reported it was beneficial. Many owners generally supported the concept of "business-to-business" mentor-protégé programs, where a larger firm provides various types of support to an emerging firm to increase the protégé's skills and capacities. However, the experiences of prime firms with mentor-protégé type programs had been mixed.
- Meeting DBE and SMWBE contract goals: Most prime contractors reported they were able to meet goals. Prime vendors in certain, more specialized areas found it hard to identify certified firms with the abilities to perform. The issue of D/M/WBEs' capacities is also a challenge for Airport staff in setting goals. The Authority's evaluation criteria for proposals sometimes work against using new or unfamiliar D/M/WBEs. The Airport was reported to be reasonable in addressing the need to substitute a certified firm during contract performance or reduce the contract goal because of a change in the scope of work. Some Black contractors expressed a strong preference for separate goals for minority-owned firm and women-owned firms rather than the single goal for the DBE program that permits a bidder to use any certified firm to meet the goal (this would require a waiver from USDOT).

2. MNAA's Industry and Geographic Markets

The courts require that a local agency limit its race-based remedial program to firms doing business in its geographic and industry markets. We therefore examined a sample of approximately \$274 million to empirically determine the market areas.

Thirty-one North American Industry Classification System ("NAICS") codes defined the product or industry market for the Airport. Table A presents the distribution of the number of contracts and the amount of contract dollars across the 31 NAICS codes.

**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
212321	Construction Sand and Gravel Mining	3.1%	8.2%
221210	Natural Gas Distribution	0.2%	0.7%
236220	Commercial and Institutional Building Construction	5.4%	20.5%
237310	Highway, Street, and Bridge Construction	8.7%	15.7%
237990	Other Heavy and Civil Engineering Construction	0.5%	0.4%
238120	Structural Steel and Precast Concrete Contractors	0.7%	6.1%
238140	Masonry Contractors	1.8%	0.6%
238150	Glass and Glazing Contractors	1.1%	0.7%
238160	Roofing Contractors	2.2%	1.0%
238210	Electrical Contractors and Other Wiring Installation Contractors	7.8%	7.0%
238220	Plumbing, Heating, and Air-Conditioning Contractors	2.5%	2.6%
238290	Other Building Equipment Contractors	2.5%	2.2%
238310	Drywall and Insulation Contractors	3.1%	0.5%

NAICS Code	Subsector	Share of Total Contracts	Share of Total Contract Dollars
238320	Painting and Wall Covering Contractors	5.6%	0.5%
238340	Tile and Terrazzo Contractors	0.9%	0.5%
238910	Site Preparation Contractors	5.4%	6.9%
238990	All Other Specialty Trade Contractors	3.1%	3.1%
321918	Other Millwork (including Flooring)	1.3%	0.9%
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing	1.3%	0.3%
333318	Other Commercial and Service Industry Machinery Manufacturing	0.5%	0.4%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	1.6%	0.8%
423830	Industrial Machinery and Equipment Merchant Wholesalers	0.7%	0.5%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	2.0%	0.4%
488119	Other Airport Operations	2.2%	2.4%

541310	Architectural Services	4.7%	3.4%
541330	Engineering Services	17.4%	3.3%
541820	Public Relations Agencies	0.9%	0.9%
561612	Security Guards and Patrol Services	2.9%	1.1%
561720	Janitorial Services	3.1%	6.0%
561730	Landscaping Services	4.2%	2.0%
922160	Fire Protection	2.9%	0.4%

Source: CHA analysis of MNAA data

We next determined the locations of firms in those 31 NAICS codes to establish the industries in which MNAA purchases. Sixty-six percent of the Authority's dollars were spent in the State of Tennessee. Therefore, we used Tennessee as the geographic market. Table B presents Tennessee counties where spending occurred. This activity represented 66 percent of the total spend by the Authority.

Table B: Geographic Percentage Distribution of Contracts In Tennessee

COUNTY	COUNTY PCT
Davidson County	63.08%
Williamson County	14.10%
Wilson County	9.02%
Rutherford County	7.54%
Knox County	1.22%
Robertson County	1.10%
Sumner County	0.89%
Shelby County	0.65%
Washington County	0.64%
Cheatham County	0.45%
Madison County	0.33%
Hamilton County	0.32%
Smith County	0.30%
Putnam County	0.15%
Coffee County	0.08%
White County	0.06%
Gibson County	0.02%
Bedford County	0.01%
Bledsoe County	0.01%
Clay County	0.01%
Maurry County	0.01%

Source: CHA analysis of MNAA data

3. MNAA's Utilization of Minority- and Women-Owned Firms

The next step was to determine the dollar value of the Authority'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 MNAAs lacked full records for payments to subcontractors other than firms certified as M/WBEs for the years in the study period, we contacted the prime vendors to request that they describe in detail their contract and associated subcontracts, including race, gender and dollar amount paid to date. We further developed a Master D/M/WBE Directory based upon lists solicited from dozens of agencies and organizations. We used the results of this extensive data collection process to assign minority or female status to the ownership of each firm in the analysis.

One finding is that utilization of D/M/WBEs is highly concentrated by subsector, with a few subsectors accounting for the large majority of utilization. M/WBEs received less than one percent of the dollars in 10 NAICS codes and very few dollars in several other subsectors. Table C presents data on the distribution of contract dollars by NAICS code for MBEs, WBEs, M/WBEs, and non-M/WBEs.

Table C: Industry Percentage Distribution of Contract Dollars

NAICS	MBE	WBE	DBE	Non-DBE
212321	0.0%	0.0%	0.0%	100.0%
236220	9.8%	0.0%	9.8%	90.2%
237310	9.7%	0.1%	9.8%	90.2%
237990	0.0%	0.0%	0.0%	100.0%
238120	0.0%	0.2%	0.2%	99.8%
238140	0.1%	0.0%	0.1%	99.9%
238150	0.0%	0.0%	0.0%	100.0%
238160	0.0%	0.0%	0.0%	100.0%
238210	0.0%	1.2%	1.2%	98.8%
238220	2.3%	0.0%	2.3%	97.7%
238290	0.0%	12.9%	12.9%	87.1%
238310	0.0%	48.7%	48.7%	51.3%
238320	41.6%	49.4%	91.0%	9.0%
238340	4.4%	94.4%	98.8%	1.2%
238910	0.1%	0.0%	0.1%	99.9%
238990	85.1%	4.3%	89.3%	10.7%
321918	0.0%	0.0%	0.0%	100.0%
423610	0.0%	0.0%	0.0%	100.0%
423830	100.0%	0.0%	100.0%	0.0%
453998	0.0%	96.7%	96.7%	3.3%
541310	32.6%	1.7%	34.3%	65.7%
541330	26.2%	6.5%	32.7%	67.3%
541820	8.0%	2.9%	10.8%	89.2%
561612	18.3%	6.7%	25.0%	75.0%
561720	19.6%	0.0%	19.6%	80.4%
561730	1.6%	78.9%	80.5%	19.5%
922160	0.0%	0.1%	0.1%	99.9%
TOTAL	9.0%	5.5%	14.5%	85.5%

Source: CHA analysis of MNAAs data

4. Availability of Minority- and Women-Owned Firms in MNAA’s Market Areas

Using the “custom census” approach to estimating availability and the further assignment of race and gender using the Master Directory and misclassification surveys, we found the aggregated weighted availability of M/WBEs to be 8.53 percent for federally-assisted contracts and 12.27 percent for locally-funded contracts. Table D presents the availability data for the racial and gender categories weighted by the Authority’s spending.

Table D1: Aggregated Weighted Availability – Federally-Funded Contracts

Demographic Group	Weighted Availability
Black	3.38%
Hispanic	0.38%
Asian	0.50%
Native American	0.78%
White Women	3.48%
DBE	8.53%
Non-DBE	91.47%

Source: CHA analysis of MNAA data; Hoovers; CHA Master Directory.

Table D2: Aggregated Weighted Availability – Locally-Funded Contracts

Demographic Group	Weighted Availability
Black	4.08%
Hispanic	0.42%
Asian	0.59%
Native American	0.45%
White Women	6.73%
MBE	5.54%
WBE	6.73%
M/WBE	12.27%
Non-M/WBE	87.73%

Source: CHA analysis of MNAA data; Hoovers; CHA Master Directory.

5. Disparity Analysis of MNAA’s Utilization of Minority- and Woman-Owned Firms

We next compared the utilization of D/M/WBEs with the availability of D/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 percent. 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.¹ We also applied statistical significance tests, which ask whether the outcome is the result of chance.

Table E presents the results of this disparity analysis by demographic group for locally-funded contracts.² No disparities were statistically significant for any group. Disparities were substantively significant for Hispanics and Native Americans. We note that the smaller, less complex nature of the Authority’s non- federal-aid contracts, combined with contract goals and aggressive outreach, has resulted in parity for DM/WBEs. However, in light of the economy-wide disparities documented in Chapter V, we do not conclude that there is no longer a compelling need for the SMWBE program. Rather, these results suggest that the program has been successful in reducing barriers to participation and those efforts should be continued.

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

Demographic Group	Disparity Ratio
Black	214.72%
Hispanic	9.66%
Asian	172.60%
Native American	7.40%
White Women	103.64%
MBE	177.85%
M/WBE	137.15%
Non-M/WBE	94.81%

Source: CHA analysis of MNAA data; Hoovers; CHA Master Directory

6. Analysis of Race and Gender Disparities in the Tennessee Economy

We explored the data and literature relevant to how discrimination in the state’s market and throughout the wider economy affects the ability of minorities and women to fairly and fully engage in state contract opportunities. This is especially important for an agency like MNAA that has implemented strong programs for many years. The parity achieved by the Airport might be a function of the success of its efforts rather than the elimination of discrimination throughout the broader market area. If so,

¹ 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.”).

² A discussion of statistical significance is provided in Appendix D.

the programs are constitutionally supportable because they ensure that the Authority does not function as a possible participant in that marketplace discrimination.

First, we analyzed the earnings of minorities and women relative to White men; the rates at which M/WBEs in Tennessee form firms; and their earnings from those firms. Next, we summarized the literature on barriers to equal access to commercial credit. Finally, we summarized 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 overall marketplace discrimination without some type of affirmative interventions. Data and literature analyzed were the following:

- 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.
- Data from the Census Bureau’s American Community Survey (“ACS”) indicates 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 outcomes, 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.

Taken together with other quantitative and anecdotal evidence, this is the type of proof that supports the ability of the Authority to continue to employ narrowly tailored race- and gender-conscious measures to ensure equal opportunities to access its contracts and associated subcontracts and guard against the evil of supporting private discrimination with public dollars.

7. Qualitative Evidence of Race and Gender Disparities in the Tennessee 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 interviewed 51 individuals to explore their experiences and information regarding attempting to do work on state 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. DBE and SMWBE contract goals were necessary to ensure access to MNAA contracts.

Topics included:

- Discriminatory attitudes and negative perceptions of competency: Minorities and women across industries reported they still experience negative perceptions of and attitudes about their capabilities by other firms and government officials. Many M/WBEs had to meet higher performance standards than White-male owned businesses.
- Exclusion from industry and information networks: M/WBEs often felt excluded or were forced to make extra efforts to create networks to connect with key decision makers, industry colleagues and potential clients. Both the racial aspects of existing relationships and the close-knit nature of the Nashville business community operate to the disadvantage of M/WBEs, especially Black owners.
- Obtaining work on an equal basis: Minority and women owners reported that without contract goals, they receive little or no work. There was close to universal agreement that the programs are essential to creating opportunities for work on Airport contracts. Most participants had not been successful in accessing private sector projects without M/WBE goals.
- Obtaining public sector prime contracts on an equal basis: Obtaining prime contracts was especially difficult. This barrier crossed industries, size of firms, and length of time in business. One solution supported by D/M/WBEs and smaller firms is a small business setaside, whereby only certified small firms would be eligible to submit a bid for specified contracts.

8. Recommendations

Based on these findings, we make the following recommendations:

- Increase outreach to small firms: While the annual outreach event is well regarded, and the Airport provides regular seminars on who to do business with the agency, more frequent and more in depth seminars were requested by many firm owners. BDD should facilitate “match making” sessions between prime contractors and subcontractors, subconsultants, suppliers and truckers to increase familiarity and comfort levels between the firms. Additionally, special outreach should be focused on industries with little D/M/WBE participation.
- Provide greater access to contracting information: Increased communication with the contracting community is critical. Owners of small firms reported difficulties in accessing information about particular solicitations, as well as policies and procedures related to the programs. MNAA has made significant strides towards using the Internet to provide access to information, and those efforts should be publicized, as many interviewees were unaware of how to find these opportunities. In addition, documents such as the programs’ regulations and compliance materials, including all forms and instructions, should be posted on the website for easy access. Additionally, regularly scheduled training for external parties on how to comply with the programs should be provided.

- Review contract sizes and scopes: “Unbundle” appropriate contracts by dollars and/or scopes.
- Review surety bonding and experience requirements and policies: Consider removing the cost of the bond from the calculation of “as read” low bidder and increasing the dollar threshold below which bonds are not required, consistent with state law. Review qualification requirements to ensure that D/M/WBEs and small firms are not unfairly disadvantaged and that there is adequate competition for Airport work.
- Adopt a small business Target Market: Set aside some smaller contracts for bidding only by certified D/S/M/WBEs as a way to create opportunities to work directly with the Authority. A SBE target market could be applied to FAA-funded projects and to locally-funded contracts and should be added to the Airport’s FAA-approved DBE program plan.
- Create a small contractor bonding and financing program: Work with a surety to provide bonds for firms that have successfully completed the associated training and mentoring program.
- Consider adopting a “business-to-business” Mentor-Protégé Program: Augment the current mentor-protégé program, which is provided by an Authority consultant in partnership with agency staff, with a “business-to-business” program to provide expertise and support from the perspective of successful businesses. Use Appendix B to 49 C.F.R. Part 26 as a model. Include formal program guidelines; a BDD-approved written development plan; a long term and specific commitment between the parties; extra credit for the mentor’s use of the protégé to meet a contract goal; a fee schedule to cover the direct and indirect cost for services; and regular review by BDD.
- Enhance the contracting data collection and monitoring system: In addition to the current functionality, we recommend implementation of functions to support contract goal setting using the Study’s unweighted availability estimates; to permit compliance plan evaluations; and develop a bidders list to meet the requirements of the DBE regulations.
- Use the Study to set the overall, annual DBE goal and the SMWBE goals: The Study’s availability estimates for federal-aid contracts should be used as the Step 1 base figure for the relative availability of DBEs required by 49 C.F.R. § 26.45(c). Likewise, we recommend that the availability estimates for locally-funded contracts be the basis for the annual goals for SMWBE utilization
- Use the Study to set DBE and SMWBE contract goals: The detailed availability estimates in the Study should serve as the starting point for contract goal setting. MNAA should bid some federally-assisted “control contracts” without goals to illuminate whether certified firms are used or even solicited in the absence of goals.

- Revise the SMWBE program eligibility standards: Adopt a personal net worth limit. Certify firms located or seeking to do business in the Authority's market area as established by the study.
- Develop performance measures for Program success: Metrics could include the number of good faith effort waiver requests; the number and dollar amounts of bids rejected as non-responsive for failure to make good faith efforts to meet the goal; the number, type and dollar amount of M/WBE substitutions during contract performance; growth in the number, size and scopes of work of certified firms; increased variety in the industries in which M/WBEs are awarded prime contracts and subcontracts; and graduation data.
- Conduct regular program reviews: Strict scrutiny requires that an agency regularly reviews the evidentiary basis for its program and whether the remedies adopted remain narrowly tailored. The Authority should adopt a sunset date for the SMWBE program.
- Increase program resources: While BDD does a commendable job with existing resources, many of these recommendations will require additional staff and funds. Perhaps the new initiatives can be prioritized, with a schedule established to implement these enhancements

II. Legal Standards for Contracting Affirmative Action Programs

A. Introduction

The Metropolitan Nashville Airport Authority (“MNAA”, “Authority” or “Airport”) has long been committed to including minority-owned and women-owned and disadvantaged business enterprises (M/W/DBEs) in its contracting and concessions activities. The Airport applies the requirements of 49 C.F.R. Part 26 to its federally-assisted Construction and Architecture and Engineering contracts. It also established a Small, Minority and Woman-Owned Business Enterprise Program for its locally-funded 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, the Airport 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.

The courts have made it clear that in order to continue to implement a race- and gender-based program on its locally funded contracts that is effective, enforceable and legally defensible, MNAA must meet the judicial test of constitutional “strict scrutiny” to determine the legality of its BDD 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.³

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

³ *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469 (1989).

- 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.⁴ 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.⁵

In *Adarand v. Peña*,⁶ 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.” Gender-based classifications must be supported by an “exceedingly persuasive justification” and be “substantially related” to the objective.⁷ However, appellate courts have applied strict scrutiny to the gender-based presumption of social disadvantage in reviewing the constitutionality of the DBE program.⁸ Therefore, we advise that the Airport evaluate gender-based remedies under the strict scrutiny standard.

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

⁴ *Id.* at 509.

⁵ *United States v. Paradise*, 480 U.S. 149, 171 (1987).

⁶ *Adarand v. Peña*, 515 U.S. 200 (1995).

⁷ *Cf. United States v. Virginia*, 518 U.S. 515 (1996).

⁸ *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715, 720 (7th Cir. 2007) (“*Northern Contracting III*”).

systemic discrimination.⁹ 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.¹⁰ 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.¹¹ “[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.”¹² A plaintiff “cannot meet its burden of proof through conjecture and unsupported criticism of [the government’s] evidence.”¹³ 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.”¹⁴ When the statistical information is sufficient to support the inference of discrimination, the plaintiff must prove that the statistics are flawed.¹⁵ 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.¹⁶

⁹ *United States v. Carolene Products Co.*, 304 U.S. 144 (1938).

¹⁰ *Aiken v. City of Memphis*, 37 F.3d 1155, 1162 (6th Cir. 1994).

¹¹ *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).

¹² *Engineering Contractors Association of South Florida, Inc. v. Metropolitan Dade County*, 122 F.3d 895, 916 (11th Cir. 1997) (*Engineering Contractors II*).

¹³ *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).

¹⁴ *Sherbrooke Turf, Inc. v. Minnesota Department of Transportation*, 345 F.3d 964, 970 (8th Cir. 2003), *cert. denied*, 541 U.S. 1041 (2004).

¹⁵ *Engineering Contractors II*, 122 F.3d at 916; *Coral Construction Co. v. King County*, 941 F.2d 910 921 (9th Cir. 1991).

¹⁶ *Adarand VII*, 228 F.3d at 1166; *Engineering Contractors II*, 122 F.3d at 916; *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).

There is no need of formal legislative findings of discrimination,¹⁷ nor “an ultimate judicial finding of discrimination before [a local government] can take affirmative steps to eradicate discrimination.”¹⁸

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 MNAA’s compelling interest in remedying discrimination in its market for locally-funded contracts and developing narrowly tailored initiatives for its DBE and BDD programs.

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

The U.S. Supreme Court in the case of the *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 which 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 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

¹⁷ *Webster v. Fulton County, Georgia*, 51 F.Supp.2d 1354, 1364 (N.D. Ga. 1999).

¹⁸ *Concrete Works of Colorado, Inc. v. City and County of Denver*, 36 F.3d 1513, 1522 (10th Cir. 2003).

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.¹⁹

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.²⁰ 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.²¹

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 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

¹⁹ 488 U.S. at 491-92.

²⁰ 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.").

²¹ 488 U.S. at 493.

sheer speculation how many minority firms there would be in Richmond absent past societal discrimination.²²

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.

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."²³

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."²⁴

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,

²² *Id.* at 499.

²³ *Id.* at 510.

²⁴ *Id.*

and was applied regardless of whether the individual MBE had suffered discrimination.²⁵ 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.²⁶

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.²⁷ 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

²⁵ See *Grutter*, 529 U.S. at 336-337 (quotas are not permitted; race must be used in a flexible, non-mechanical way).

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

²⁷ *Id.* at 502.

determining whether discrimination against Black businesses infects the local economy.²⁸

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*.²⁹

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*."³⁰

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."

²⁸ See, e.g., *Northern Contracting III*, 473 F.3d at 723.

²⁹ *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 II*, 36 F.3d at 1528 (City may rely on "data reflecting the number of MBEs and WBEs in the marketplace to defeat the challenger's summary judgment motion").

³⁰ *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).

C. Strict Scrutiny as Applied to Federal Enactments

In *Adarand v. Peña*,³¹ 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. 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.³²

1. U.S. Department of Transportation's Disadvantaged Business Enterprise Program

To comply with *Adarand*, Congress reviewed and revised the Disadvantaged Business Enterprise (DBE) Program statute³³ and implementing regulations³⁴ for federal-aid contracts in the transportation industry. To date, every court that has considered the issue has found the regulations to be constitutional on their face.³⁵ While binding strictly only upon the federal DBE Program, these cases provide important guidance to the Airport about the types of evidence necessary to establish its compelling interest in adopting a contracting affirmative action program for its locally-funded contracts and how to narrowly tailor its DBE and BDD programs. For example, the Fourth Circuit noted with approval that North Carolina's M/WBE program for state-funded contracts largely mirrored Part 26.³⁶

³¹ 515 U.S. 200 (1995) (*Adarand III*).

³² *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.

³³ Transportation Equity Act for the 21st Century (TEA-21), Pub. L. No. 105-178 (b)(1), 112 Stat. 107, 113.

³⁴ 49 C.F.R. Part 26.

³⁵ *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*, 2004 U.S. Dist. LEXIS 3226 at *64 (N.D. Ill., Mar. 3, 2004) ("*Northern Contracting I*").

³⁶ *H.B. Rowe Co. v. Tippett*, 615 F.3d 233, 236 (4th Cir. 2010).

All courts have held that Congress had strong evidence of widespread race discrimination in the construction industry.³⁷ 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.³⁸

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. Thus, they failed to meet their ultimate burden to prove that the DBE program is unconstitutional on this ground.³⁹

Next, the regulations were facially narrowly tailored. Unlike the prior program,⁴⁰ 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.

³⁷ 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.”).

³⁸ See *id.*, 407 F.3d at 992-93.

³⁹ *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.”).

⁴⁰ 49 C.F.R. Part 23.

- 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 and set-asides is limited to only those situations where there is no other remedy.
- 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 are available.⁴¹

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.”⁴²

The DBE Program is also flexible. Eligibility is limited to small firms owned by persons whose net worth is under a certain amount.⁴³ There are built-in Program time limits, and the 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.

The court next held that the goals are tied to the relevant labor 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*...”⁴⁴

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

⁴¹ *Sherbrooke*, 345 F.3d. at 973.

⁴² *Id.* at 972.

⁴³ 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).

⁴⁴ *Id.*

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.”⁴⁵

DBE programs based upon a methodology similar to that for this Study for the Airport, 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 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.⁴⁶

2. U.S. Department of Defense’s Small Disadvantaged Business Program

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*.⁴⁷ 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*,⁴⁸ 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

⁴⁵ *Id.* at 973.

⁴⁶ *Id.*

⁴⁷ *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.

⁴⁸ 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.

other statistical and anecdotal evidence did not rise to meet the heavy constitutional burden.

Of particular relevance to this report for MNAA, 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.⁴⁹ 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."⁵⁰

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 for size differences and "qualifications" of the minority firms in the denominator of the disparity analysis, or as the court labeled it, "relative capacity."⁵¹ 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.⁵² 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.⁵³

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

⁴⁹ *Rothe*, 545 F.3d at 1037-1038.

⁵⁰ *Id.* at 1038-1039.

⁵¹ *Id.* at 1042.

⁵² *Ibid.*

⁵³ U.S. Commission on Civil Rights, *Disparity Studies as Evidence of Discrimination in Federal Contracting* (May 2006): 79.

insufficient to form the statistical core of the “strong basis in evidence” required to uphold the statute.⁵⁴

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.”⁵⁵

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 duration, and not unduly burdensome to third parties, and that the program has tended to narrow the reach of its remedies over time.⁵⁶

D. Strict Scrutiny as Applied to MNAA’s Small, Minority and Woman-Owned Business Enterprise Program

MNAA must independently meet strict scrutiny for the Small, Minority and Woman-Owned Business Enterprise Program applied to 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 the Airport’s Small, Minority and Woman-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.⁵⁷ 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.⁵⁸

⁵⁴ *Rothe*, 545 F.3d at 1045.

⁵⁵ *Id.* at 1049.

⁵⁶ *Id.* at 1049.

⁵⁷ *Adarand VII*, 228 F.3d at 1166 (“statistical and anecdotal evidence are appropriate”).

⁵⁸ *Id.*

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.”⁵⁹

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 participant in that discrimination...[by] linking its spending practices to the private discrimination.”⁶⁰ 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.

2. Define MNAA’s Market Area

The first step in evaluating MNAA’s compelling interest is to determine the market areas in which the agency operates. *Croson* holds 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.⁶¹ MNAA 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.⁶²

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.⁶³ Likewise, the accepted approach is to analyze those

⁵⁹ *Concrete Works IV*, 321 F.3d at 976.

⁶⁰ *Id.* at 977.

⁶¹ *Croson*, 488 U.S. at 508.

⁶² *Concrete Works II*, 36 F.3d at 1520 (to confine data to strict geographic boundaries would ignore “economic reality”).

⁶³ “*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”).

detailed industries that make up at least 75 percent of the prime contract and subcontract payments for the Study period.⁶⁴

3. Examine Disparities between M/WBE Availability and MNA's Utilization of M/WBEs

Next, the study must estimate the availability of minorities and women to participate in the Airport'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 tailored racial preference might be necessary to break down patterns of deliberate exclusion.⁶⁵

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 percent. Courts have looked to disparity indices in determining whether strict scrutiny is satisfied.⁶⁶ 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.⁶⁷

The first step in the disparity analysis is to calculate the availability of minority- and women-owned firms in the Airport's geographic and industry market area. 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

⁶⁴ *Id.* at pp. 50-51.

⁶⁵ *Croson*, 488 U.S. at 509; *see Webster*, 51 F.Supp.2d at 1363, 1375.

⁶⁶ *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).

⁶⁷ 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 F3d at 914.

and women, and the success of such firms in doing business in both the private and public sectors.⁶⁸

The second step is to determine whether there are disparities between the availability estimates and MNAA's utilization of M/WBEs on its locally-funded 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, or 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."⁶⁹ 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 explained the disparities. Additionally, *Croson* does not "require disparity studies that measure whether construction firms are able to perform a *particular contract*."⁷⁰

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.⁷¹

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.⁷²

The Airport 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.

⁶⁸ *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") (*Northern Contracting II*).

⁶⁹ *Concrete Works IV*, 321 F.3d at 983 (emphasis in the original).

⁷⁰ *Id.* at 987-88 (emphasis in the original).

⁷¹ *Id.* at 971.

⁷² *Id.* at 973 (emphasis in the original).

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 discrimination and would eviscerate any reliance the municipality could place on statistical studies and anecdotal evidence.⁷³

Similarly, statistical evidence by its nature cannot identify the individuals responsible for the discrimination.⁷⁴

4. Evaluate the Results of Unremediated Markets

Where such evidence is available, a study should next review the results of contracts solicited without goals. Courts have held that such outcomes are an excellent indicator of whether discrimination continues to impact opportunities in public contracting. Evidence of race and gender discrimination in relevant “unremediated”⁷⁵ 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 M/WBEs.⁷⁶ As the Eleventh Circuit has acknowledged, “the program at issue may itself be masking discrimination that might otherwise be occurring in the relevant market.”⁷⁷ If M/WBE utilization is below availability in unremediated markets, an inference of discrimination may be supportable. 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.”⁷⁸ 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.⁷⁹ 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

⁷³ *Id.* at 971.

⁷⁴ *Id.* at 973.

⁷⁵ “Unremediated market” means “markets that do not have race- or gender-conscious subcontracting goals in place to remedy discrimination.” *Northern Contracting II*, at *36.

⁷⁶ *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).

⁷⁷ *Engineering Contractors II*, 122 F.3d at 912.

⁷⁸ *Adarand VII*, 228 F.3d at 1174.

⁷⁹ *See also Contractors Association of Eastern Pennsylvania v. City of Philadelphia*, 91 F.3d 586, 599-601 (3rd Cir. 1996) (“*Philadelphia III*”).

City's compelling interest in employing race- and gender-conscious measures.⁸⁰ Evidence of unremediated markets "sharpens the picture of local market conditions for MBEs and WBEs."⁸¹

Therefore, the study's inquiry does not end if M/WBEs are "overutilized" because of the entity's program. 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.

5. 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 of 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.⁸² 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 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

⁸⁰ *Builders Association of Greater Chicago v. City of Chicago*, 298 F. Supp.2d 725, 737 (N.D. Ill. 2003); see also *Concrete Works IV*, 321 F.3d at 987-988.

⁸¹ *Concrete Works II*, 36 F.3d at 1529.

⁸² *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).

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.⁸³

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."⁸⁴ 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.⁸⁵ 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 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.⁸⁶

⁸³ *Adarand VII*, 228 F.3d at 1168-69.

⁸⁴ *Id.*

⁸⁵ *Id.*; *Western States*, 407 F.3d at 993; *Northern Contracting I*, 2004 U.S. Dist. LEXIS 3226 at *64.

⁸⁶ *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.").

6. 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.”⁸⁷ 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.⁸⁸ 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.”⁸⁹ “[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.”⁹⁰

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.”⁹¹ 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 to relate their own perceptions on discrimination in the Denver construction industry.”⁹²

E. Narrowly Tailoring a Disadvantaged Business Enterprise Program and a Minority and Women Business Enterprise Program for MNAA

The DBE and SMWBE programs must both be narrowly tailored to evidence of discrimination in MNAA’s markets. The courts have repeatedly examined the

⁸⁷ *International Brotherhood of Teamsters v. United States*, 431 U.S. 324, 399 (1977).

⁸⁸ *Adarand VII*, 228 F.3d at 1168-1172.

⁸⁹ *Concrete Works II*, 36 F.3d at 1520, 1530.

⁹⁰ *Engineering Contractors II*, 122 F.3d at 926.

⁹¹ *Id.* at 249.

⁹² *Concrete Works IV*, 321 F.3d at 989.

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.⁹³

It is imperative that remedies not operate as fixed quotas.⁹⁴ 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.⁹⁵ In *Croson*, the Court refers approvingly to the contract-by-contract waivers used in the USDOT's DBE program.⁹⁶ This feature has been central to the holding that the DBE program meets the narrow tailoring requirement.⁹⁷

1. 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,⁹⁸ and the failure to seriously consider such remedies has been fatal to several programs.⁹⁹ Difficulty in accessing

⁹³ *United States v. Paradise*, 480 U.S. 149, 171 (1987); see also *Sherbrooke*, 345 F.3d at 971-972.

⁹⁴ 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").

⁹⁵ 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.").

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

⁹⁷ See, e.g., *Sherbrooke*, 345 F.3d at 972.

⁹⁸ *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).

⁹⁹ 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 II*, 122 F.3d at 928.

procurement opportunities, restrictive bid specifications, excessive experience requirements, and overly burdensome insurance and/or bonding requirements, for example, might be addressed by the Airport 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.¹⁰⁰ Further, governments have a duty to ferret out and punish discrimination against minorities and women by their contractors, staff, lenders, bonding companies or others.¹⁰¹

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.¹⁰²

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.¹⁰³ 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.”¹⁰⁴

2. Set Targeted Goals

Numerical goals or benchmarks for DBE or M/WBE participation must be substantially related to their availability in the relevant market.¹⁰⁵ 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.¹⁰⁶ Goal setting, however, is not an absolute science.¹⁰⁷ “Though the underlying estimates may be inexact, the exercise requires the States to focus on

¹⁰⁰ See 49 CFR § 26.51.0.

¹⁰¹ *Croson*, 488 U.S. at 503 n.3; *Webster*, 51 F.Supp.2d at 1380.

¹⁰² See, e.g., *Sherbrooke*, 345 F.3d. at 973

¹⁰³ *Grutter*, 529 U.S. at 339.

¹⁰⁴ *Coral Construction*, 941 F.2d at 923.

¹⁰⁵ *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 of Maryland, Inc. v. Mayor and City Council of Baltimore, et al.*, 83 F.Supp.2d 613, 621 (D. Md. 2000) (“*Baltimore I*”).

¹⁰⁶ 49 C.F.R. § 26.45.

¹⁰⁷ 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).

establishing realistic goals for DBE participation in the relevant contracting markets. This stands in stark contrast to the program struck down in *Croson*.¹⁰⁸

Goals can be set at various levels of particularity and participation. The DBE regulations require the Airport to set an overall DBE goal for its annual, aggregate spending, and that goal cannot be disaggregated by race and gender.¹⁰⁹ MNAA could disaggregate its target for its local program by race and gender.

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,¹¹⁰ 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.

3. Ensure Flexibility of Goals and Requirements

It is imperative that remedies not operate as fixed quotas.¹¹¹ 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.¹¹² 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.¹¹³ This feature has been central to the holding that the DBE program meets the narrow tailoring requirement.¹¹⁴

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

The over- or under-inclusiveness of those persons to be included in the Airport’s BDD 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

¹⁰⁸ *Sherbrooke*, 345 F.3d. at 972.

¹⁰⁹ 49 C.F.R. § 26.51(e)(4).

¹¹⁰ *See Sherbrooke*, 345 F.3d at 972; *Coral Construction*, 941 F.2d at 924.

¹¹¹ *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”).

¹¹² *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.”).

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

¹¹⁴ *See, e.g., Sherbrooke*, 345 F.3d. at 972.

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.¹¹⁵ 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.”¹¹⁶ 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.”¹¹⁷ 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.¹¹⁸ Therefore, remedies should be limited to those firms that have suffered actual harm in the market area.¹¹⁹

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,¹²⁰ to separate goals for each minority group and women.¹²¹ 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.¹²²

Second, a 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

¹¹⁵ *Contractors Association of Eastern Pennsylvania v. City of Philadelphia*, 6 F.3d 990, 1007-1008 (3rd Cir. 1993) (“*Philadelphia I*”) (strict scrutiny requires data for each minority group; data was insufficient to include Hispanics, Asians or Pacific Islanders or Native Americans).

¹¹⁶ *Webster*, 51 F.Supp.2d at 1380–1381.

¹¹⁷ *Builders Association of Greater Chicago v. County of Cook*, 256 F.3d 642, 646 (7th Cir. 2001).

¹¹⁸ *Concrete Work IV*, 321 F.3d at 971 (Denver introduced evidence of bias against each group; that is sufficient).

¹¹⁹ *H. B. Rowe Co. v. Tippet*, 615 F.3d 233, 254 (4th Cir. 2010) (“[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.”).

¹²⁰ See 49 C.F.R. §26.45(h) (overall goal must not be subdivided into group-specific goals).

¹²¹ See *Engineering Contractors II*, 122 F.3d at 900 (separate goals for Blacks, Hispanics and women).

¹²² *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.”).

narrowly tailored.¹²³ “[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.”¹²⁴ Further, anyone can challenge the disadvantaged status of any firm.¹²⁵

5. 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.¹²⁶ 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.¹²⁷ 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.¹²⁸ “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.”¹²⁹

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

¹²³ *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).

¹²⁴ *Id.* at 973.

¹²⁵ 49 C.F.R. §26.87.

¹²⁶ *See Engineering Contractors Assoc. of South Florida, Inc. v. Metropolitan Dade County (“Engineering Contractors I”)*, 943 F.Supp. 1546, 1581-1582 (S.D. Fla. 1996) (County chose not to change its procurement system).

¹²⁷ *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.”).

¹²⁸ *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).

¹²⁹ *Western States*, 407 F.3d at 995.

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.¹³⁰

The DBE program regulations recognize these facts and therefore provide remedial benefits not only to firms acting as subcontractors on a project,¹³¹ but also to DBEs seeking prime work.¹³² 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.

6. Regularly Review the Program

MNAA should continue to conduct regular reviews of the SMWBE program. Race-based programs must have duration limits and “not last longer than the discriminatory effects it is designed to eliminate.”¹³³

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 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

¹³⁰ *Northern Contracting II*, 2005 U.S. Dist. LEXIS 19868 at 74.

¹³¹ 49 C.F.R. § 26.45(a)(1).

¹³² 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.”).

¹³³ *Adarand III*, 515 U.S. at 238.

sufficient standing alone to justify the City's efforts in 2004.¹³⁴ Fourteen year-old data were also insufficient to support the City of Columbus, Ohio's program.¹³⁵

In contrast, the USDOT DBE Program's periodic review by Congress has been repeatedly held to provide adequate durational limits.¹³⁶ 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."¹³⁷

The legal test is the most recent available data.¹³⁸ How old is too old is not definitively answered, but MNAA would be wise to analyze data at least once every five or six years.

¹³⁴ *BAGC v. Chicago*, 298 F.Supp.2d at 739.

¹³⁵ *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 *Associated General Contractors of Ohio, Inc. v. Drabik*, 50 F.Supp.2d 741, 747, 750 (S.D. Ohio 1999) ("*Drabik I*") ("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.");

¹³⁶ See *Western States*, 407 F.3d at 995.

¹³⁷ *Rowe*, 615 F.3d at 253.

¹³⁸ *Rothe*, 545 F.3d at 1038-1039.

III. MNAA’s Disadvantaged Business Enterprise and Small, Minority- and Women-Owned Business Enterprise Programs

This Chapter describes MNAA’s Disadvantaged Business Enterprise (“DBE”) Program for federal-aid contracts, and its Small, Minority and Women-Owned Business Enterprise Program (“SMWBE”) for locally-funded contracts, as well as various race-neutral measures. Next, we present the results of interviews with business owners and stakeholders concerning their experiences with both Programs.

A. Disadvantaged Business Enterprise Program

As a recipient of US Department of Transportation (“USDOT”) funds, MNAA is required as a condition of receipt to implement a DBE Program in compliance with 49 C.F.R. Part 26.¹³⁹ In brief summary, MNAA 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 MNAA as prime contractors and firms bidding to those prime contractors as subcontractors.¹⁴⁰
- Adopt a non-discrimination policy statement.¹⁴¹
- Appoint a DBE Liaison Officer, with substantial responsibilities and direct reporting to the chief executive office of the agency.¹⁴²
- Make efforts to utilize DBE financial institutions.¹⁴³
- Adopt prompt payment mechanism for its prime contractors and for the prompt payment of subcontractors by prime contractors.¹⁴⁴
- Create and maintain a DBE directory.¹⁴⁵
- Address possible overconcentration of DBEs in certain types of work.¹⁴⁶
- Include elements to assist small businesses, such as unbundling contracts.¹⁴⁷

MNAA applies the annual goal setting methodology set forth in 49 C.F.R. § 26.45. It developed a “step 1” base figure estimate of the availability of ready, willing

¹³⁹ 49 C.F.R. §§ 26.3 and 26.21.

¹⁴⁰ 49 C.F.R. § 26.11.

¹⁴¹ 49 C.F.R. § 26.23.

¹⁴² 49 C.F.R. § 26.25.

¹⁴³ 49 C.F.R. § 26.27.

¹⁴⁴ 49 C.F.R. § 26.29.

¹⁴⁵ 49 C.F.R. § 26.31.

¹⁴⁶ 49 C.F.R. § 26.33.

¹⁴⁷ 49 C.F.R. § 26.39.

and able DBEs using the Census Bureau's County Business Patterns database and the Tennessee Unified Certification Program DBE Directory. Next, it performed a "step 2" adjustment by averaging the step 1 figure with the historic annual median DBE participation. Using this approach, MNAA's current triennial DBE goal is 7.5 percent, with 5.0 percent to be achieved through race-conscious contract goals and 2.0 percent to be achieved through race-neutral measures. This goal has been approved by the Federal Aviation Administration.

The Airport is a member of the Tennessee Unified Certification Program ("TNUCP"), and certifies DBEs in accordance with Part 26 and the TNUCP procedures.

B. Small, Minority- and Women-Owned Business Enterprise Program

1. History of the SMWBE Program

First adopted in 2002, MNAA also implements a Small, Minority- and Women-Owned Business ("SMWBE") race- and gender-conscious program for its locally-funded contracts. The Board of Commissioners has repeatedly affirmed its commitment to augmenting and enhancing business opportunities for small, minority- and women-owned business enterprises and established policies and procedures for the Program, including certification, program compliance and reporting.

MNAA conducted a disparity study in 2007.¹⁴⁸ The 2007 Report analyzed data from July 1, 2003 through December 31, 2007. It determined that MNAA's market area was the entire United States, because 22.41 percent of MNAA's construction bidders were located outside Tennessee and 17.96 percent of the firms on the vendor list were located outside Tennessee. The Report listed a variety of availability estimates based on MNAA's vendor list, its bidders list and subcontractors listed during the bidding process; no overall estimates were provided. Compared to their utilization on Authority contracts, the 2007 Report found most M/WBEs were underutilized in some areas of MNAA contracting and in all areas throughout the wider Nashville economy (no analysis was performed for the US economy as a whole). Based on these results, the Report recommended the following: that the Airport set race- and gender-based utilization goals; the Office of Business Diversity conduct outreach and technical and other assistance programs; unbundle contracts; develop guidelines for informal contract awards; review automatic contract extensions and renewals; review insurance and bonding requirements; strengthen the role of compliance; and deploy additional resources to the Office.

In response to the 2007 Report, MNAA adopted an enhanced policy that contained the recommendations, and also expanded the geographic definition of eligible firms. Based on the Report, MNAA adopted aspirational goals for the SMWBE Program of 17.74 percent for construction; 8.41 percent for professional services; and 1.82 percent for goods and services.

¹⁴⁸ "Final Report for Development and Revision of Small, Minority & Women Business Enterprise Program," Griffin & Strong, P.C., 2007 ("2007 Report").

The Authority commissioned a study in 2010 to review its SMWBE Program and progress towards addressing the 2007 Report's recommendations.¹⁴⁹ Conducted over a two year period, the 2011 Review Report noted progress in implementing program best practices and a major attitude shift towards ownership of the program from key MNAA personnel as well as an organizational focus on building capacity and sustainability for certified firms, not just meeting numerical goals. Additional enhancements included reduced bonding and insurance requirements for some classes of contracts; technical assistance workshops to assist vendors with certification and Airport procurement and bidding policies and procedures; networking sessions for certified firms and prime vendors; a newsletter; implementation of the B2GNow software system to streamline and improve the effectiveness of the program; efforts to increase the utilization of certified firms on small emergency, one-time maintenance contracts; and a pilot mentor-protégé program.

2. Program Elements

The SMWBE program applies many of the elements of the DBE program, such as definitions of terms; the requirement that firms perform a commercially useful task; the ability of bidders who did not meet the contract goals but made good faith effort to do so to obtain waivers; an appeals process, etc. To be eligible for certification, a firm must be an independent entity that is owned, managed and controlled by a Minority Person (defined as a citizen or legal resident alien who is Black, Hispanic, Asian-Pacific, which includes the Indian Subcontinent, or Native American) or a woman, and a Small Business Enterprise as defined by the Small Business Administration at 13 C.F.R. Part 121.

There are two important differences between the SMWBE and DBE program:

1. MNAA does not impose an economic disadvantage test.
2. Firms must have a significant business presence in the Nashville Metropolitan Area.¹⁵⁰

In addition to conducting its own S/M/WBE certification process, MNAA accepts certifications from TNUCP DBE program and the Governor's Office of Diversity Business Enterprise, so long as the applicant firm is located in the program's market area. Upon the first anniversary of reciprocal certification, the firm must provide BDD an affidavit of no change and its most recent tax return to ensure that size and ownership requirements continue to be met.

¹⁴⁹ "Metropolitan Nashville Airport Authority, Follow-Up SMWBE Review Report," Business Resource Group, Inc., 2011 ("2011 Review Report").

¹⁵⁰ Board policy defines the Nashville Metropolitan Area as Bedford, Cannon, Cheatham, Davidson, Dickson, Hickman, Macon, Maury, Montgomery, Robertson, Rutherford, Smith, Sumner, Trousdale, Williamson and Wilson counties.

C. DBE and SMWBE Program Administration

For most purposes of day-to-day operations, the DBE and the SMWBE Programs are treated similarly. We therefore refer to “DBEs,” unless there is a difference between the Programs.

1. Staff Responsibilities

The implementation of the DBE and SMWBE programs is the responsibility of the Business Diversity Development Department (“BDD”). BDD focuses on three major functions: Business Development and Outreach; Certification; and Compliance. Major tasks include:

- Establishing cooperative relationships with business organizations and community stakeholders through consistent participation in business expos, trade associations, professional conferences and meetings. BDD develops a schedule for each fiscal year.
- Informing SMWBEs and DBEs of contracting opportunities through emails and flyers about project pre-bid meetings and contractor to subcontractor networking sessions.
- Developing strategies to maximize SMWBE and DBE participation by reviewing opportunities for unbundling projects or project components, reducing bonding and insurance barriers where appropriate, and coordinating with MNAA Purchasing and key department heads requirements for bidding.
- Facilitating educational and technical assistance workshops as a method of increasing competencies and capacity of potential DBEs and SMWBEs seeking to procure business with the Airport.
- Reporting DBE and SMWBE contracting activity monthly to the Board of Commissioners and senior leadership at MNAA.
- Developing DBE and SMWBE goals on an individual project level in accordance with acceptable goal setting methodologies.

The Director of BDD reports to the Senior Vice President/Chief Legal Officer. Additional staff includes the Assistant Manager of Compliance, who is responsible for developing, implementing and monitoring the Programs; the Compliance Coordinator, who coordinates all compliance activities; and the Certification Specialist, who performs certification eligibility analyses of individual firms and sends outreach information.

In addition to the functions of BDD, the following departments play important roles in the Program’s administration.

- The Legal Department enforces the Program elements based on BDDs recommendation.
- The Purchasing Department is responsible for the actual administration of the contract, from the award process to the closeout of the project. In addition to the

Director, there are five staff positions that oversee MNAA's entire procurement function.

- The using department is responsible for monitoring data collection and project management.

BDD has developed an extensive and comprehensive Policy and Process Manual that codifies DBE and SMWBE program elements and administration.

2. Contract goal setting, award and monitoring procedures

MNAA provides extensive information to potential bidders on compliance with the requirements of the applicable program. The processes for meeting goals and compliance elements are spelled out in contract documents, and include the standards for good faith efforts; how participation levels will be calculated; resources to identify SMWBEs, such as the Authority's on-line Directory; criteria for substituting a certified firm during performance; reporting procedures; and penalties for non-compliance.

Contract goals are developed by BDD upon notification by the procuring department of an upcoming solicitation. The process is documented and reflects the estimated contract value, the type of goods or services involved and a request for a participation level. MNAA follows the procedures of Part 26 to set DBE contract goals. For locally-funded contacts, SMWBE goals are established using the percentage of certified firms compared to the Airport's Master Vendor List, and then distributing those percentages amongst the various racial and ethnic groups and White females in proportion to their estimation in the 2007 Report.

Bidders must submit all the participation of certified firms they anticipate to use during the performance of the contract with the bid or proposal, as well as all subcontractors proposed to perform 5 percent or more of the total contract price. 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. If the bidder fails to meet the goal, documentation of a bidder's good faith efforts to do so must be submitted with the solicitation response.

The bidder must enter into an agreement with the DBE for work used to meet the contract goal upon execution of a contract with the Authority.

The Authority applies most elements of the DBE regulatory requirements in Part 26 to the local program, such as how to count DBE participation, the definition of a commercially useful function, the requirements to demonstrate that a bidder has made good faith efforts to meet the contract goals, post submission changes to the compliance plan, etc.

BDD staff conducts on-site visits to monitor compliance with contractual commitments to use certified firms. Further monitoring is provided through the review of pay applications and reports submitted by the procuring departments.

3. Mentor-Protégé and Emerging Contractors Programs

MNAA has developed a Mentor-Protégé (“MP”) and Emerging Contractors (“EC”) Program to provide tiered levels of assistance to certified firms. The objective is to further increase firms’ capacities to do work on Airport projects. Participation in the MP Program is the first level, where firms take classroom training in areas such as contracts, bidding/estimating, business planning, accessing business capital, etc. Upon successful completion of the MP component, firms move to the EC program, which provides intensive on-on-one counseling and training individualized for the company.

4. Unbundling Contracts

Planning, Design and Construction (“PDC”) has used the Terminal Renovation Phase II project to unbundle and uses MNAA staff to manage the different aspects of the project. These new processes encourage Prime/Sub relationships in creative bonding and insurance relationships.

5. Selection Criteria

RFQ packages used for consultant selection were recently changed not only to evaluate consultants on whether or not the team met or exceeded the percentage goal as well as including other factors such as their mentoring programs of other firms and their use of SMWBEs on non-MNAA projects when it is voluntary.

6. Reduced Bonding and Insurance Requirements

BDD, PDC, Maintenance, Purchasing, Legal and Finance work together to identify areas in which bonding and insurance requirements can be adjusted. Bid bonds, and payment bonds for SMWBE firms have been eliminated on some projects and insurance levels have been adjusted downward on some projects. For example, in 2011 PDC unbundled the Terminal Renovation Phase II project by managing the project with its staff with several contractors. This is a continuing process in which projects are reviewed to assess the bonding and insurance requirements.

D. Business Owner Interviews: Experiences with the DBE and SMWBE Programs

To explore the operation of the program elements in actual contract opportunities, we interviewed 51 individuals and stakeholders as well as MNAA staff members about their experiences and solicited their suggestions for changes. Overall, participants were positive about the Authority’s Programs, and contrasted them favorably with other Nashville agencies’ efforts.

1. MNAA’s Overall DBE and SMWBE Programs

Several D/W/WBEs reported that they get work from MNAA because of the DBE and SMWBE programs, in contrast to other local agencies.

I've had a very good experience for me, Nashville Airport. But I know that it's because federal dollars [are] involved.... If you are really serious about what your services are and you have a federal minority certification, you need to specifically look for organizations that have federal monies in play. Otherwise, it's just a very tough fight.

The Authority's electronic data collection and certification system was reported to work well for DBEs.

It makes it a lot more simple when it's time to recertify. I'm able to go in and update my monthly information. I can go back into my file. I never had access to anything like that prior to this system, so it works well for me.

Some DBEs stated that despite the operations of the Programs, it was still difficult to obtain work on Airport jobs.

We spend a lot of energy going to pre-proposal meetings. Prequal[ification] meetings. Handing out cards. Submitting our statement of capability, the statement of qualifications to the larger firms. But if there's no real [effort], if somebody who's in charge of helping minorities get work don't call you back, then I doubt if they're going to be one of those ones that say to Company A, hey guys, I don't think you've done a good faith in reaching out.

The people that are in the [BDD] offices are ... afraid to ask the question and bring, hold [other Authority staff] accountable of why is this guy not getting the [specialty] work? Or, this engineer, he's trying to get in, why can't he bid this work? Or what is the problem or how can we fit it in? I know they can't work everybody because this is an international airport, there's security reasons and I don't think they should work everybody.... But right now they need to change their process.

A few participants stated that BDD needs more authority and autonomy to advance the Programs and serve as advocates for D/M/WBEs.

[The BDD] department should report directly to the president. It should not be buried in the legal department. That person should be able to say exactly what they need to say to the president without fear of their supervisor guiding them, second-guessing them and putting their whole spin on it.

I agree with that.

2. Access to Information about MNAA's Contracting Processes, Program Elements and Upcoming Opportunities

Some smaller firms stated that it was difficult to get information about why their bids did not conform to Authority requirements beyond the price.

I tried to get [someone from the Airport] on the phone and see where I was standing at, what was the reason why my bid was rejected. ... I have left ... several voicemails.... I'm in the dark.

When [the Authority staff] looked at our resume they felt like there was projects that were, projects that we could get on our own: But beyond the networking event, nothing happened. And that's happened to us more than once.

3. Outreach to D/M/WBEs

There was definite interest in attending more frequent and targeted networking events with Airport personnel.

They should have maybe two meetings a year, as opposed to just one, where you could actually meet the people who actually buy the products.

4. Bonding and Insurance Requirements

Several owners, both D/M/WBEs and prime contractors, stated that the Airport needs to review its bonding and insurance requirements to reduce the burdens on small firms.

They need a bond guarantee program for these contractors. They have a lot of money that they put into DBE training and workshop programs, but once you come out of the training and workshop programs you still need to be able to provide the bond.

There needs to be more bonding help.

Do a wraparound bonding program where the Airport buys the bonding and put everybody under that umbrella.

Authority staff agreed that additional bonding assistance is needed.

Once they spend their time going through those programs, when they get ready to bid, bonding and unbundling of contract is still a major issue.

5. Unbundling Contracts

Many participants listed breaking contracts into smaller units– unbundling– as an important measure to assist all small firms to obtain Airport work, especially as prime contractors.

I would be interested to see what the Airport can do as far as pulling out certain parts of the contract.

[Many government contracts are] too large for us to put a package together [as a general contractors] and be competitive with some of the larger companies.... The only opportunity I generally have and can be competitive in is when they put a general trades package together and that's bundling a lot, a series of smaller packages.

Small firms should be able to perform as primes if they have the track record.... The terms and conditions [like the size of the contract] just wipe them out.

6. Access to Prime Contracting Opportunities

There was strong support for race-neutral small business set-asides where only small firms would be eligible to submit bids or proposals. This approach is specifically listed as an acceptable race-neutral small business element in the DBE Program regulations.¹⁵¹

I would totally support it.... I just want the opportunity to be able to bid what's in my category. And I'll be as competitive as anyone else. If I don't get it because I'm not as competitive, that's fine. But have the opportunity.

You're tethered to [the prime firm]. If they lose the contract or if they're terrible, then you get passed on with that. Or if you have a conflict with them there's no recourse.

Please do that. Because you can't compete as a small business in with the big businesses to be the prime.... Most times as a new vendor, they don't want to try you out on something big. They want to try you out on something small.

When there is an overlap of capabilities, you will not be allowed to talk about that capability where you and the prime have the same capability.... We are always going to be one or two people away from the decision making process.

7. Mentor-Protégé Initiatives

Some DBEs were familiar with the Authority's internal program that pairs firms with staff members. Those who had participated reported it was beneficial.

I went through a Mentor-Protégé Program with the Airport, which is great for my company and I'm very appreciative of that.

Prime firms reported mixed experiences with business-to-business mentor-protégé type programs.

The lady was nice, very educated. But when she came to work they wasn't quite ready. So, I had to help do their project. And it wasn't until the last few days— and I was fair with her— I said, I'm just going to back charge you the amount it cost me to let you have these employees. No profit, no nothing. So, we get this done. Ended up they moved on and got there. They'll get there. I've been in the mentor program where you help mentor groups. And it's fun, but at the same time, it's hard to be as a business. Because the accountants in our office [say], well why have you got to send

¹⁵¹ See 49 C.F.R. § 26.39.

them a check weekly? Why have you got to do this? I go, if you didn't work for this company you'd understand but people don't want to understand. We want to work those programs but it's just not as simple as everybody thinks. You got to finance them, you got to help them.

We ... tried working with mentor-protégé as well and I don't know, we still got some work to do there.

[Another agency's program failed the small firm] because there was nothing in it for [the mentor].

One of [our mentor-protégé agreements] has been very successful and it's mainly because [the protégé] can use our resume to go after projects that are strictly set out for small and disadvantaged businesses and they've been able to get quite a bit of work that way.... We look at it as a good way for us to try to get in an area that we know that, hey, we're going to be shut out and not be able to do any work. We're able to get so we'll be doing 40 or 49 percent of the contract.

If all you had to be was like to some degree the management of the job, the financial of the job, and them to be able to do their job [we would participate]. That's the most important thing. I've been called to jobs across the state where somebody won a highway and they show up and they have nothing.... So, if they're there and ready to go and all they need's the financial and the management and wherewithal, yeah. But, if you got to babysit them totally all the way, no.

I don't know that we look at trying to go through all the paperwork if it's strictly Nashville's Airport's the only one that's going to do it.

Airport staff suggested additional support for DBEs to understand the agency's processes, policies and needs.

DBEs need to spend a full day with me kind of walking them through the steps of a project. When you go through the pre-bid to the time you get to the pre-con, all the things I'm going to require at the front end. So that they can walk through that and understand it a little bit better.

8. Meeting DBE and SMWBE Contract Goals

Most prime contractors reported they were able to meet goals.

We've always been able to meet our goals. It's not always easy.... We're only prime on one contract at the Airport and all three of our subs are woman-owned businesses at the moment. And it depends on, well what we're doing.... In certain areas, finding various minorities is very difficult.... We do use some firms that are not local that we're bringing in. But the Airport, they don't necessarily love that.

We've always met our goals.... However, we've got some smaller consultants we always work with in the past on other projects ... but they won't get certified because of paperwork and the financial information they're asking for. So, they don't want to give that out. So, simply we can't reuse them on an Airport project. We've got to go find somebody else. It was a little difficult because, like some of you have said, we've not worked with them in the past. So, it's a learning process.... We've got basically the same teams that we go after everything. And we can still meet all the goals.

For the most part, the percentages that they're allocating for professional services.... It's fairly well thought out on their end. It's challenging. But you can generally do it if you want to.

Usually the services we sub out are ones we don't perform anyway, certainly geotechnical.... But overall, I think meeting the goal at Nashville hasn't been too much of a problem for us.

The recession has knocked so many people out of business.... So, as people get back on that footing and stuff, then I think there will be more of those programs that work well.

Prime vendors in certain, more specialized areas found it hard to identify certified firms with the abilities to perform.

There's just not much to select from [in certain disciplines or trades].

[The pool is] very limited.

The capacity is not there for large projects. But there is good reason it's not there. Because they haven't in the past a history having provided them with opportunity to grow their companies labor-wise or financial. Because if you don't have the work, you can't keep people on the payroll. So, capacity is a major problem with minority and women owned companies going to the next level as it relates to large jobs.

The issue of D/M/WBEs' capacities is also a challenge for Airport staff in setting goals.

There's a lot of certified contractors on our list. But, when you really look at it objectively, how many of them are really certified and have the resources to perform? Because when I see a contractor listed that says, I'm certified in painting, I'm certified in construction management, I'm certified in contract administration, I'm certified in scheduling, I'm certified in structural steel, installation, that throws a red flag up to me.

The NAICS codes are so broad. For example, on electrical there's a lot of different types of electrical. And the airfield lighting is a very specialized type of work. That's not a good snapshot of who's truly there and capable.

The Authority's evaluation criteria for proposals sometimes work against using new or unfamiliar D/M/WBEs.

One of the qualifications they want to see how many times you've worked together so you're being penalized to try somebody new.

The Airport was reported to be reasonable in addressing the need to substitute a certified firm during contract performance or reduce the contract goal because of a change in the scope of work.

We had to drop one once. But we still had enough percentage [so] we still met our goals. Because with that then they allowed us to do it. Once we got selected, the scope changed and we actually didn't need that person.

Some Black contractors expressed a strong preference for separate goals for minority-owned firm and women-owned firms rather than the single goal for the DBE program that permits a bidder to use any certified firm to meet the goal (this change would require a waiver from USDOT). In their experience, bidders prefer to use White females, who suffer fewer disadvantages and have greater access to the resources needed for success, to contracting with Black males.

If you do a 20 percent [combined] goal, [prime contractors are] going to go out there and find them a White- [female] owned business and that's going to eat your 7 percent [for minority firms] up either way it goes.

You have to separate the goal. You have to separate the [White] women.

E. Conclusion

The program review and personal interviews support the conclusion that MNAA implements the DBE Program within the parameters of 49 C.F.R. Part 26, and the SMWBE program in conformance with contracting program best practices. 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; and implementing a set-aside procurement method for small business for smaller contracts.

IV. Utilization, Availability and Disparity Analysis for the Metropolitan Nashville Airport Authority

A. Contract Data Sources and Sampling Method

We analyzed purchase order and contract data for 2008 through 2012 for MNAA. The Final File of MNAA contracts for analysis contained a total award amount of \$274,309,954. The file of MNAA purchase orders and contracts was developed through the following steps:

- From the initial pool of 1,273 contracts, we eliminated purchases under \$25,000, cancelled contracts, contracts with other governments, duplicate listings of contracts, etc.
- From the remaining 328 contracts, we identified 120 contracts with a total award amount of \$4,163,785 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 208 large contracts, with a total award amount of \$291,863,143, we contacted the prime firms in an effort to obtain complete contract records for the prime and subcontracting levels. We successfully collected data for 127 contracts worth \$261,257,673. This represents 90% of the data that were in the Final File.

The Final File was used to determine the geographic market area for the Study; to estimate the utilization of D/M/WBEs on those contracts; and to calculate M/WBE availability in the Airport's marketplace.

B. The Authority's Product and Geographic Markets

1. MNAA's Product Market

A defensible disparity study must determine empirically the industries that comprise the agency's product or industry market. The accepted approach is to analyze those detailed industries, as defined by 6-digit North American Industry, Classification System ("NAICS") codes,¹⁵² that make up at least 75 percent of the prime contract and subcontract payments for the Study period.¹⁵³ This provides the breadth and depth of data required to meet strict constitutional scrutiny. 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 so that we could be assured that we provide an in depth picture of the Airport's activities.

¹⁵² www.census.gov/eos/www/naics.

¹⁵³ "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").

Tables 1-3 present the NAICS codes used to define the product market when examining contracts disaggregated by level of contract (*i.e.*, was the firm receiving the contract a prime vendor or a subcontractor); the label for each NAICS code; and the industry percentage distribution of the number of contracts and spending across NAICS codes and funding source. The results in Tables 1 through 3 will be later constrained by the geographic market area, discussed below.

Table 1: Industry Percentage Distribution of All Contracts by Dollars Paid

NAICS Code	Subsector	Share of Total Contract Dollars	Cumulative Share of Total Contract Dollars
236220	Commercial and Institutional Building Construction	20.50%	20.50%
237310	Highway, Street, and Bridge Construction	15.70%	36.20%
212321	Construction Sand and Gravel Mining	8.20%	44.40%
238210	Electrical Contractors and Other Wiring Installation Contractors	7.00%	51.40%
238910	Site Preparation Contractors	6.90%	58.30%
238120	Structural Steel and Precast Concrete Contractors	6.10%	64.40%
561720	Janitorial Services	6.00%	70.40%
541310	Architectural Services	3.40%	73.80%
541330	Engineering Services	3.30%	77.10%
238990	All Other Specialty Trade Contractors	3.10%	80.20%
238220	Plumbing, Heating, and Air-Conditioning Contractors	2.60%	82.80%
488119	Other Airport Operations	2.40%	85.20%
238290	Other Building Equipment Contractors	2.20%	87.40%
561730	Landscaping Services	2.00%	89.40%
561612	Security Guards and Patrol Services	1.10%	90.50%
238160	Roofing Contractors	1.00%	91.50%
321918	Other Millwork (including Flooring)	0.90%	92.40%
541820	Public Relations Agencies	0.90%	93.30%

423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.80%	94.10%
238150	Glass and Glazing Contractors	0.70%	94.80%
221210	Natural Gas Distribution	0.70%	95.50%
238140	Masonry Contractors	0.60%	96.10%
238320	Painting and Wall Covering Contractors	0.50%	96.60%
238310	Drywall and Insulation Contractors	0.50%	97.10%
238340	Tile and Terrazzo Contractors	0.50%	97.60%
423830	Industrial Machinery and Equipment Merchant Wholesalers	0.50%	98.10%
922160	Fire Protection	0.40%	98.50%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	0.40%	98.90%
237990	Other Heavy and Civil Engineering Construction	0.40%	99.30%
333318	Other Commercial and Service Industry Machinery Manufacturing	0.40%	99.70%
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing	0.30%	100.00%

Source: CHA analysis of MNAA data.

Table 2: Industry Percentage Distribution of Prime Contracts by Dollars Paid

NAICS	NAICS Code Description	NAICS PCT	PCT TOTAL DOLLARS
236220	Commercial and Institutional Building Construction	37.8%	37.8%
237310	Highway, Street, and Bridge Construction	22.2%	60.0%
561720	Janitorial Services	9.4%	69.5%
212321	Construction Sand and Gravel Mining	6.8%	76.3%
541310	Architectural Services	5.5%	81.8%
488119	Other Airport Operations	4.5%	86.3%

561730	Landscaping Services	2.6%	88.8%
541330	Engineering Services	2.3%	91.1%
238160	Roofing Contractors	2.0%	93.1%
541820	Public Relations Agencies	1.6%	94.7%
561612	Security Guards and Patrol Services	1.4%	96.1%
238910	Site Preparation Contractors	0.9%	96.9%
238290	Other Building Equipment Contractors	0.9%	97.8%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.7%	98.5%
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing	0.6%	99.2%
238320	Painting and Wall Covering Contractors	0.4%	99.6%
238210	Electrical Contractors and Other Wiring Installation Contractors	0.1%	99.8%
238220	Plumbing, Heating, and Air-Conditioning Contractors	0.1%	99.9%
423830	Industrial Machinery and Equipment Merchant Wholesalers	0.1%	99.9%
237990	Other Heavy and Civil Engineering Construction	0.1%	100.0%

Source: CHA analysis of MNAA data.

Table 3: Industry Percentage Distribution of Subcontracts by Dollars Paid

NAICS	NAICS Code Description	NAICS PCT	PCT TOTAL DOLLARS
238210	Electrical Contractors and Other Wiring Installation Contractors	14.1%	14.1%
238910	Site Preparation Contractors	13.1%	27.2%
238120	Structural Steel and Precast Concrete Contractors	12.5%	39.6%
212321	Construction Sand and Gravel Mining	9.6%	49.3%
237310	Highway, Street, and Bridge Construction	9.1%	58.4%
238990	All Other Specialty Trade Contractors	6.2%	64.6%
238220	Plumbing, Heating, and Air-Conditioning Contractors	5.1%	69.7%
541330	Engineering Services	4.3%	74.1%
238290	Other Building Equipment Contractors	3.6%	77.6%
236220	Commercial and Institutional Building Construction	2.6%	80.3%
561720	Janitorial Services	2.4%	82.6%
321918	Other Millwork (including Flooring)	1.7%	84.4%

221210	Natural Gas Distribution	1.5%	85.9%
561730	Landscaping Services	1.4%	87.3%
238150	Glass and Glazing Contractors	1.3%	88.7%
238140	Masonry Contractors	1.3%	90.0%
541310	Architectural Services	1.3%	91.2%
238310	Drywall and Insulation Contractors	1.1%	92.3%
238340	Tile and Terrazzo Contractors	1.0%	93.3%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.9%	94.2%
561612	Security Guards and Patrol Services	0.9%	95.1%
423830	Industrial Machinery and Equipment Merchant Wholesalers	0.9%	96.0%
922160	Fire Protection	0.8%	96.9%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	0.8%	97.7%
237990	Other Heavy and Civil Engineering Construction	0.7%	98.4%
333318	Other Commercial and Service Industry Machinery Manufacturing	0.7%	99.1%
238320	Painting and Wall Covering Contractors	0.5%	99.6%
541820	Public Relations Agencies	0.2%	99.8%
488119	Other Airport Operations	0.1%	100.0%
238160	Roofing Contractors	0.0%	100.0%

2. MNAA's Geographic Market

The courts require that a local government limit the reach of its race- and gender-conscious contracting program for contracts it funds to its market area.¹⁵⁴ While it may be that the agency's jurisdictional borders or other defined area comprise its market area, this element of the analysis must also be empirically established.¹⁵⁵ This study analyzed the contract data for MNAA and, using location as determined by zip code as listed in the file, the data was aggregated into counties as the basic geographic unit. Spending in Tennessee accounted for 65.7% of all contract dollars paid in the product market (see Table 4); consequently, Tennessee constituted the geographic market area from which we drew our availability data. Table 5 presents data on how the contract dollars were spent across Tennessee counties.

¹⁵⁴ *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).

¹⁵⁵ *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").

Table 4: State Geographic Percentage Distribution of Contracts

STATE	Pct Total Contract Dollars	STATE	Pct Total Contract Dollars	STATE	Pct Total Contract Dollars
TN	65.663%	CA	1.180%	OH	0.074%
TX	13.733%	NC	0.743%	MN	0.065%
KY	9.732%	IA	0.330%	PA	0.029%
GA	2.348%	IL	0.193%	IN	0.014%
FL	2.282%	LA	0.172%	WI	0.013%
MI	1.731%	MO	0.137%	MD	0.008%
AL	1.418%	VA	0.130%	CO	0.004%

Source: CHA analysis of MNAA data.

Table 5: County Geographic Percentage Distribution of Contracts

COUNTY	COUNTY PCT	PCT TOTAL
Davidson County	63.08%	63.08%
Williamson County	14.10%	77.19%
Wilson County	9.02%	86.21%
Rutherford County	7.54%	93.75%
Knox County	1.22%	94.97%
Robertson County	1.10%	96.07%
Sumner County	0.89%	96.97%
Shelby County	0.65%	97.62%
Washington County	0.64%	98.25%
Cheatham County	0.45%	98.70%
Madison County	0.33%	99.03%
Hamilton County	0.32%	99.35%
Smith County	0.30%	99.65%
Putnam County	0.15%	99.80%
Coffee County	0.08%	99.88%
White County	0.06%	99.94%
Gibson County	0.02%	99.96%
Bedford County	0.01%	99.97%
Bledsoe County	0.01%	99.98%
Clay County	0.01%	99.99%
Maury County	0.01%	100.00%

Source: CHA analysis of MNAA data.

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

The next essential step was to determine the dollar value of MNAA's utilization of D/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 Authority was unable to provide us with full records for payments to prime contractors and subcontractors other than firms certified as DBEs for the full study period, 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 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.

Tables 6 through 8b present data on the total contract dollars paid by MNAA for each NAICS code and the share the contract dollars comprise of all spending in the constrained product and geographic markets. We dropped NAICS code 561720, Janitorial Services, because one firm received almost 97 percent of the dollars. Such an outlier would distort the picture of utilization.

Table 6: NAICS Code Distribution of Contract Dollars

NAICS	NAICS Code Description	Total Contract Dollars	Pct Total Contract Dollars
212321	Construction Sand and Gravel Mining	16,998,038	12.5%
237310	Highway, Street, and Bridge Construction	14,805,403	10.9%
238910	Site Preparation Contractors	14,078,294	10.4%
236220	Commercial and Institutional Building Construction	13,406,318	9.9%
238210	Electrical Contractors and Other Wiring Installation Contractors	10,598,748	7.8%
238120	Structural Steel and Precast Concrete Contractors	9,818,426	7.2%
541330	Engineering Services	5,674,430	4.2%
238220	Plumbing, Heating, and Air-Conditioning Contractors	5,341,620	3.9%
238290	Other Building Equipment Contractors	4,493,020	3.3%
561730	Landscaping Services	4,088,334	3.0%
541310	Architectural Services	2,350,334	1.7%
561612	Security Guards and Patrol Services	2,345,340	1.7%
238160	Roofing Contractors	2,103,124	1.5%
541820	Public Relations Agencies	1,910,864	1.4%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	1,673,397	1.2%
321918	Other Millwork (including Flooring)	1,604,059	1.2%

238150	Glass and Glazing Contractors	1,363,846	1.0%
238140	Masonry Contractors	1,331,714	1.0%
238310	Drywall and Insulation Contractors	1,078,863	0.8%
238340	Tile and Terrazzo Contractors	1,018,065	0.7%
238320	Painting and Wall Covering Contractors	938,117	0.7%
423830	Industrial Machinery and Equipment Merchant Wholesalers	899,741	0.7%
922160	Fire Protection	863,666	0.6%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	822,781	0.6%
237990	Other Heavy and Civil Engineering Construction	811,723	0.6%
TOTAL		135,932,938	100.0%

Source: CHA analysis of MNA data.

Table 7a: Distribution of Contract Dollars by Race and Gender

NAICS	Asian	Black	Hispanic	Native American	White Women	Non-M/WBE
212321	0	0	0	0	0	16,998,038
236220	0	1,287,914	0	30,341	0	12,088,063
237310	0	1,410,533	29,836	0	12,840	13,352,193
237990	0	0	0	0	0	811,723
238120	0	0	0	0	17,252	9,801,175
238140	0	0	1,750	0	0	1,329,964
238150	0	0	0	0	0	1,363,846
238160	0	0	0	0	0	2,103,124
238210	0	0	0	0	124,572	10,474,176
238220	0	121,056	0	0	0	5,220,564
238290	0	0	0	0	578,150	3,914,870
238310	0	0	0	0	525,428	553,434
238320	0	390,529	0	0	463,330	84,258
238340	0	45,286	0	0	960,871	11,908
238910	0	13,130	0	0	0	14,065,165
321918	0	0	0	0	0	1,604,059
423610	0	0	0	0	0	1,673,397
423830	0	899,741	0	0	0	0
453998	0	0	0	0	795,781	27,000
541310	0	767,172	0	0	39,660	1,543,502
541330	1,383,101	103,233	0	0	368,958	3,819,138
541820	0	152,032	0	0	54,513	1,704,318
561612	0	428,228	0	0	157,541	1,759,570

561730	0	64,875	0	0	3,226,552	796,908
922160	0	0	0	0	759	862,906
Total	1,383,101	10,786,217	37,726	30,341	7,460,223	116,235,329

Source: CHA analysis of MNA data.

Table 7b: Distribution of Contract Dollars by Race and Gender

NAICS	MBE	WBE	M/WBE	Non-M/WBE	TOTAL
212321	0	0	0	16,998,038	16,998,038
236220	1318255	0	1318255	12,088,063	13,406,318
237310	1440369	12,840	1453209	13,352,193	14,805,402
237990	0	0	0	811,723	811,723
238120	0	17,252	17252	9,801,175	9,818,427
238140	1750	0	1750	1,329,964	1,331,714
238150	0	0	0	1,363,846	1,363,846
238160	0	0	0	2,103,124	2,103,124
238210	0	124,572	124572	10,474,176	10,598,748
238220	121056	0	121056	5,220,564	5,341,620
238290	0	578,150	578150	3,914,870	4,493,020
238310	0	525,428	525428	553,434	1,078,862
238320	390529	463,330	853859	84,258	938,117
238340	45286	960,871	1006157	11,908	1,018,065
238910	13130	0	13130	14,065,165	14,078,295
321918	0	0	0	1,604,059	1,604,059
423610	0	0	0	1,673,397	1,673,397
423830	899741	0	899741	0	899,741
453998	0	795,781	795781	27,000	822,781
541310	767172	39,660	806832	1,543,502	2,350,334
541330	1486334	368,958	1855292	3,819,138	5,674,430
541820	152032	54,513	206545	1,704,318	1,910,863
561612	428228	157,541	585769	1,759,570	2,345,339
561730	64875	3,226,552	3291427	796,908	4,088,335
922160	0	759	759	862,906	863,665
Total	12237385	7,460,223	19697608	116,235,329	135,932,937

Source: CHA analysis of MNA data.

Table 8a: Percent Distribution of Contract Dollars by Race and Gender

NAICS	Asian	Black	Hispanic	Native American	White Women	Non-M/WBE
212321	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
236220	0.00%	9.61%	0.00%	0.23%	0.00%	90.17%
237310	0.00%	9.53%	0.20%	0.00%	0.09%	90.18%
237990	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
238120	0.00%	0.00%	0.00%	0.00%	0.18%	99.82%
238140	0.00%	0.00%	0.13%	0.00%	0.00%	99.87%
238150	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
238160	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
238210	0.00%	0.00%	0.00%	0.00%	1.18%	98.82%
238220	0.00%	2.27%	0.00%	0.00%	0.00%	97.73%
238290	0.00%	0.00%	0.00%	0.00%	12.87%	87.13%
238310	0.00%	0.00%	0.00%	0.00%	48.70%	51.30%
238320	0.00%	41.63%	0.00%	0.00%	49.39%	8.98%
238340	0.00%	4.45%	0.00%	0.00%	94.38%	1.17%
238910	0.00%	0.09%	0.00%	0.00%	0.00%	99.91%
321918	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
423610	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
423830	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
453998	0.00%	0.00%	0.00%	0.00%	96.72%	3.28%
541310	0.00%	32.64%	0.00%	0.00%	1.69%	65.67%
541330	24.37%	1.82%	0.00%	0.00%	6.50%	67.30%
541820	0.00%	7.96%	0.00%	0.00%	2.85%	89.19%
561612	0.00%	18.26%	0.00%	0.00%	6.72%	75.02%
561730	0.00%	1.59%	0.00%	0.00%	78.92%	19.49%
922160	0.00%	0.00%	0.00%	0.00%	0.09%	99.91%
Total	1.02%	7.93%	0.03%	0.02%	5.49%	85.51%

Source: CHA analysis of MNA data.

Table 8b: Percent Distribution of Contract Dollars by Race and Gender

NAICS	MBE	WBE	M/WBE	Non-M/WBE	TOTAL
212321	0.00%	0.00%	0.00%	100.00%	100.00%
236220	9.83%	0.00%	9.83%	90.17%	100.00%
237310	9.73%	0.09%	9.82%	90.18%	100.00%
237990	0.00%	0.00%	0.00%	100.00%	100.00%
238120	0.00%	0.18%	0.18%	99.82%	100.00%
238140	0.13%	0.00%	0.13%	99.87%	100.00%

238150	0.00%	0.00%	0.00%	100.00%	100.00%
238160	0.00%	0.00%	0.00%	100.00%	100.00%
238210	0.00%	1.18%	1.18%	98.82%	100.00%
238220	2.27%	0.00%	2.27%	97.73%	100.00%
238290	0.00%	12.87%	12.87%	87.13%	100.00%
238310	0.00%	48.70%	48.70%	51.30%	100.00%
238320	41.63%	49.39%	91.02%	8.98%	100.00%
238340	4.45%	94.38%	98.83%	1.17%	100.00%
238910	0.09%	0.00%	0.09%	99.91%	100.00%
321918	0.00%	0.00%	0.00%	100.00%	100.00%
423610	0.00%	0.00%	0.00%	100.00%	100.00%
423830	100.00%	0.00%	100.00%	0.00%	100.00%
453998	0.00%	96.72%	96.72%	3.28%	100.00%
541310	32.64%	1.69%	34.33%	65.67%	100.00%
541330	26.19%	6.50%	32.70%	67.30%	100.00%
541820	7.96%	2.85%	10.81%	89.19%	100.00%
561612	18.26%	6.72%	24.98%	75.02%	100.00%
561730	1.59%	78.92%	80.51%	19.49%	100.00%
922160	0.00%	0.09%	0.09%	99.91%	100.00%
Total	9.00%	5.49%	14.49%	85.51%	100.00%

Source: CHA analysis of MNA data.

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

NAICS	Asian	Black	Hispanic	Native American	White Women	Non-M/WBE
212321	0	0	0	0	0	16,998,038
236220	0	1,287,914	0	30,341	0	12,088,063
237310	0	1,410,533	29,836	0	12,840	13,352,193
237990	0	0	0	0	0	811,723
238120	0	0	0	0	17,252	9,801,175
238140	0	0	1,750	0	0	1,329,964
238150	0	0	0	0	0	1,363,846
238160	0	0	0	0	0	2,103,124
238210	0	0	0	0	124,572	10,474,176
238220	0	121,056	0	0	0	5,220,564
238290	0	0	0	0	578,150	3,914,870
238310	0	0	0	0	525,428	553,434
238320	0	390,529	0	0	463,330	84,258
238340	0	45,286	0	0	960,871	11,908
238910	0	13,130	0	0	0	14,065,165

321918	0	0	0	0	0	1,604,059
423610	0	0	0	0	0	1,673,397
423830	0	899,741	0	0	0	0
453998	0	0	0	0	795,781	27,000
541310	0	767,172	0	0	39,660	1,543,502
541330	1,383,101	103,233	0	0	368,958	3,819,138
541820	0	152,032	0	0	54,513	1,704,318
561612	0	428,228	0	0	157,541	1,759,570
561730	0	64,875	0	0	3,226,552	796,908
922160	0	0	0	0	759	862,906
Total	1,383,101	5,683,729	31,586	30,341	7,326,207	105,963,299

Source: CHA analysis of MNA data.

Table 9b: Distribution of Contract Dollars by Race and Gender

NAICS	MBE	WBE	M/WBE	Non-M/WBE	TOTAL
212321	0	0	0	16,998,038	16,998,038
236220	1318255	0	1318255	12,088,063	13,406,318
237310	1440369	12,840	1453209	13,352,193	14,805,402
237990	0	0	0	811,723	811,723
238120	0	17,252	17252	9,801,175	9,818,427
238140	1750	0	1750	1,329,964	1,331,714
238150	0	0	0	1,363,846	1,363,846
238160	0	0	0	2,103,124	2,103,124
238210	0	124,572	124572	10,474,176	10,598,748
238220	121056	0	121056	5,220,564	5,341,620
238290	0	578,150	578150	3,914,870	4,493,020
238310	0	525,428	525428	553,434	1,078,862
238320	390529	463,330	853859	84,258	938,117
238340	45286	960,871	1006157	11,908	1,018,065
238910	13130	0	13130	14,065,165	14,078,295
321918	0	0	0	1,604,059	1,604,059
423610	0	0	0	1,673,397	1,673,397
423830	899741	0	899741	0	899,741
453998	0	795,781	795781	27,000	822,781
541310	767172	39,660	806832	1,543,502	2,350,334
541330	1486334	368,958	1855292	3,819,138	5,674,430
541820	152032	54,513	206545	1,704,318	1,910,863
561612	428228	157,541	585769	1,759,570	2,345,339
561730	64875	3,226,552	3291427	796,908	4,088,335

922160	0	759	759	862,906	863,665
Total	7,128,757	7,326,207	14,454,964	105,963,299	120,418,263

Source: CHA analysis of MNA data.

Table 10a: Percent Distribution of Contract Dollars by Race and Gender

NAICS	Asian	Black	Hispanic	Native American	White Women	Non-M/WBE
212321	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
236220	0.0%	9.6%	0.0%	0.2%	0.0%	90.2%
237310	0.0%	9.5%	0.2%	0.0%	0.1%	90.2%
237990	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
238120	0.0%	0.0%	0.0%	0.0%	0.2%	99.8%
238140	0.0%	0.0%	0.1%	0.0%	0.0%	99.9%
238150	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
238160	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
238210	0.0%	0.0%	0.0%	0.0%	1.2%	98.8%
238220	0.0%	2.3%	0.0%	0.0%	0.0%	97.7%
238290	0.0%	0.0%	0.0%	0.0%	12.9%	87.1%
238310	0.0%	0.0%	0.0%	0.0%	48.7%	51.3%
238320	0.0%	41.6%	0.0%	0.0%	49.4%	9.0%
238340	0.0%	4.4%	0.0%	0.0%	94.4%	1.2%
238910	0.0%	0.1%	0.0%	0.0%	0.0%	99.9%
321918	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
423610	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
423830	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
453998	0.0%	0.0%	0.0%	0.0%	96.7%	3.3%
541310	0.0%	32.6%	0.0%	0.0%	1.7%	65.7%
541330	24.4%	1.8%	0.0%	0.0%	6.5%	67.3%
541820	0.0%	8.0%	0.0%	0.0%	2.9%	89.2%
561612	0.0%	18.3%	0.0%	0.0%	6.7%	75.0%
561730	0.0%	1.6%	0.0%	0.0%	78.9%	19.5%
922160	0.0%	0.0%	0.0%	0.0%	0.1%	99.9%
Total	1.1%	4.7%	0.0%	0.0%	6.1%	88.0%

Source: CHA analysis of MNA data.

Table 10b: Percent Distribution of Contract Dollars by Race and Gender

NAICS	MBE	WBE	M/WBE	Non-M/WBE	TOTAL
212321	0.0%	0.0%	0.0%	100.0%	100.0%
236220	9.8%	0.0%	9.8%	90.2%	100.0%

237310	9.7%	0.1%	9.8%	90.2%	100.0%
237990	0.0%	0.0%	0.0%	100.0%	100.0%
238120	0.0%	0.2%	0.2%	99.8%	100.0%
238140	0.1%	0.0%	0.1%	99.9%	100.0%
238150	0.0%	0.0%	0.0%	100.0%	100.0%
238160	0.0%	0.0%	0.0%	100.0%	100.0%
238210	0.0%	1.2%	1.2%	98.8%	100.0%
238220	2.3%	0.0%	2.3%	97.7%	100.0%
238290	0.0%	12.9%	12.9%	87.1%	100.0%
238310	0.0%	48.7%	48.7%	51.3%	100.0%
238320	41.6%	49.4%	91.0%	9.0%	100.0%
238340	4.4%	94.4%	98.8%	1.2%	100.0%
238910	0.1%	0.0%	0.1%	99.9%	100.0%
321918	0.0%	0.0%	0.0%	100.0%	100.0%
423610	0.0%	0.0%	0.0%	100.0%	100.0%
423830	100.0%	0.0%	100.0%	0.0%	100.0%
453998	0.0%	96.7%	96.7%	3.3%	100.0%
541310	32.6%	1.7%	34.3%	65.7%	100.0%
541330	26.2%	6.5%	32.7%	67.3%	100.0%
541820	8.0%	2.9%	10.8%	89.2%	100.0%
561612	18.3%	6.7%	25.0%	75.0%	100.0%
561730	1.6%	78.9%	80.5%	19.5%	100.0%
922160	0.0%	0.1%	0.1%	99.9%	100.0%
Total	5.9%	6.1%	12.0%	88.0%	100.0%

Source: CHA analysis of MNAA data.

D. The Availability of Minority- and Women-Owned Business Enterprises in MNAA Markets

1. Methodological Framework

Estimates of the availability of minority- and women-owned firms in MNAA's market area are a critical component of the analysis of possible barriers to equal opportunities to participate in its contracting activities. These availability estimates are compared to the utilization percentage of dollars received by D/M/WBEs to examine whether DBEs receive parity.¹⁵⁶ Availability estimates are also crucial for the Authority to set narrowly tailored contract goals.

¹⁵⁶ For our analysis, the terms "DBE" and "M/WBE" include firms that certified as DBEs pursuant to the Tennessee Unified Certification Program and as M/WBEs by the Airport and firms that are not certified. As discussed in Chapter II, the inclusion of all DBEs in the pool casts the broad net approved by the courts that supports the remedial nature of the programs. See *Northern Contracting, Inc. v.*

We applied the “custom census” approach to estimating availability. As recognized by the National Model Disparity Study Guidelines,¹⁵⁷ this methodology is superior to the other methods for at least four reasons.

1. It provides an internally consistent and rigorous “apples to apples” comparison between firms in the availability numerator and those in the denominator. Other approaches often have different definitions for the firms in the numerator (*e.g.*, certified Disadvantaged Business Enterprises) and the denominator (*e.g.*, registered vendors).
2. By examining a comprehensive group of firms, it “casts a broader net” beyond those known to the agency. As recognized by the Seventh Circuit, this comports with the remedial nature of the DBE program by seeking to bring in businesses that have historically been excluded. A custom census is less likely to be tainted by the effects of past and present discrimination than other methods, such as bidders lists, because it seeks out firms in the agency’s markets areas that have not been able to access its opportunities.
3. 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 held that the results of discrimination— which impact factors affecting capacity— should not be the benchmark for a program designed to ameliorate the effects of discrimination. They have acknowledged that minority and women firms may be smaller, newer, and otherwise less competitive than non-DBEs because of the very discrimination sought to be remedied by race-conscious contracting programs. 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.¹⁵⁸
4. It has been upheld by every court that has reviewed it, including in the successful defenses of the Illinois Department of Transportation’s DBE program,¹⁵⁹ and the M/WBE construction program for the City of Chicago.¹⁶⁰

2. Estimation of M/WBE Availability

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

1. Created a database of representative, recent, and complete MNAA contracts;

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.”).

¹⁵⁷ National Disparity Study Guidelines, pp.57-58.

¹⁵⁸ For a detailed discussion of the role of capacity in disparity studies, see the National Disparity Study Guidelines, Appendix B, “Understanding Capacity.”

¹⁵⁹ *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715 (7th Cir. 2007).

¹⁶⁰ *Builders Association of Greater Chicago v. City of Chicago*, 298 F. Supp.2d 725 (N.D. Ill. 2003).

2. Identified the MNAA's relevant geographic market by counties;
3. Identified the MNAA's relevant product market by 6-digit NAICS codes;
4. Counted all businesses in the relevant markets using Dun & Bradstreet/Hoovers databases;
5. Identified listed minority-owned and women-owned businesses in the relevant markets; and
6. 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 Authority'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 D/M/WBE availability estimate for each NAICS code, the availability estimates for each aggregated industry and the availability estimates for all industries.

We purchased the firm information from Hoovers for the firms in the NAICS codes located in MNAA'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.¹⁶¹ 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 D/M/WBE Directory that combined the results of an exhaustive search for directories and other lists containing information about minority and women-owned businesses. All of the directories were keypunched and/or cleaned as necessary regarding firm names, contact information and race and gender. The directories were merged into one master list that eliminated duplicate listings of firms while maintaining all relevant information for each firm. The resulting list of minority- and women-owned firms is comprehensive and provides data to supplement the Hoovers database by disaggregating the broad category of "minority-owned" into specific racial groupings. The list of these groups is provided in Appendix A.

We 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:

¹⁶¹ The variable is labeled: "Is Minority Owned" and values for the variable can be either "yes" or "no".

1. Sort Hoovers by the 6-digit NAICS codes that comprise the MNAA's 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 MNAA's 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
 - c. Asians
 - d. Native Americans; and
6. Apply these percentages to the number of minority-owned firms in Hoovers.

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 Firms (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 Firms (Overall)
99999	100	50	10	40	200	2000

Based upon the results of these classifications and further assignments, we estimated the availability of D/M/WBEs as a percentage of total firms. D/M/WBE unweighted availability is defined as the number of D/M/WBEs divided by the total number of firms in the MNAA's market area.

Tables 11a and 11b present data on the unweighted availability by race and gender and by NAICS codes for all industries in the product market.

Table 11a: Unweighted Availability by Racial Group

NAICS	Black	Hispanic	Asian	Native American
212321	0.00%	0.00%	0.00%	0.00%
236220	9.51%	1.23%	1.31%	0.89%
237310	3.72%	0.40%	0.57%	1.83%
237990	3.33%	0.36%	1.64%	0.34%
238120	0.00%	0.00%	0.00%	0.00%
238140	4.62%	0.50%	0.70%	0.48%
238150	1.88%	0.20%	0.29%	0.19%
238160	1.84%	0.20%	0.28%	0.19%
238210	2.55%	0.26%	0.36%	0.25%
238220	1.59%	0.15%	0.21%	0.14%
238290	0.00%	0.00%	0.00%	0.00%
238310	1.59%	0.71%	0.24%	0.16%
238320	1.81%	0.20%	0.27%	0.19%
238340	1.59%	0.07%	1.02%	0.07%
238910	3.41%	0.37%	0.52%	0.35%
321918	0.00%	0.00%	0.00%	0.00%
423610	2.33%	0.25%	0.35%	0.24%
423830	2.07%	0.22%	0.31%	0.21%
453998	1.00%	0.11%	0.15%	0.10%
541310	2.41%	0.16%	0.22%	0.64%
541330	4.48%	0.41%	1.06%	0.39%
541820	1.37%	0.15%	0.21%	0.14%
561612	6.60%	0.72%	1.00%	1.68%
561730	2.45%	0.23%	0.32%	0.22%
922160	0.00%	0.00%	0.00%	0.00%
Total	2.32%	0.26%	0.37%	0.27%

Source: CHA analysis of MNAA data; Hoovers; CHA Master Directory

Table 11b: Unweighted Availability Aggregated

NAICS	MBE	WBE	DBE	Non-DBE
212321	0.00%	0.00%	0.00%	100.00%
236220	12.94%	5.88%	18.82%	81.18%
237310	6.52%	4.35%	10.87%	89.13%
237990	5.68%	7.95%	13.63%	86.36%
238120	0.00%	22.73%	22.73%	77.27%
238140	6.30%	3.15%	9.45%	90.55%
238150	2.56%	2.56%	5.12%	94.87%
238160	2.51%	3.94%	6.45%	93.55%
238210	3.42%	3.09%	6.51%	93.49%
238220	2.09%	2.82%	4.91%	95.08%
238290	0.00%	0.00%	0.00%	100.00%
238310	2.70%	3.78%	6.48%	93.51%
238320	2.47%	3.61%	6.08%	93.92%
238340	2.75%	2.75%	5.50%	94.50%
238910	4.65%	4.65%	9.30%	90.70%
321918	0.00%	0.00%	0.00%	100.00%
423610	3.17%	13.49%	16.66%	83.33%
423830	2.82%	8.47%	11.29%	88.71%
453998	1.36%	7.25%	8.61%	91.39%
541310	3.41%	8.29%	11.70%	88.29%
541330	6.33%	4.14%	10.47%	89.54%
541820	1.86%	18.01%	19.87%	80.12%
561612	10.00%	5.00%	15.00%	85.00%
561730	3.21%	2.61%	5.82%	94.18%
922160	0.00%	0.00%	0.00%	100.00%
Total	3.22%	4.94%	8.16%	91.84%

Source: CHA analysis of MNAA data; Hoovers; CHA Master Directory

To further meet the constitutional requirement that the availability estimates that will be used to set goals are narrowly tailored, we then weighted the availability estimate for each of the aggregated industries in the NAICS codes by the share of the agency's spending in each code. Table 12 presents these weights. Tables 13a and 13b present the final estimates of the weighted averages of all the individual 6-digit level availability estimates in the Authority's market area for federally-funded and locally-funded contracts, respectively.

Table 12: Share of MNAA Spending by NAICS Code

NAICS	NAICS Code Description	Pct Total Contract Dollars
212321	Construction Sand and Gravel Mining	3.45%
236220	Commercial and Institutional Building Construction	7.73%
237310	Highway, Street, and Bridge Construction	1.93%
237990	Other Heavy and Civil Engineering Construction	0.88%
238120	Structural Steel and Precast Concrete Contractors	10.68%
238140	Masonry Contractors	1.22%
238150	Glass and Glazing Contractors	1.48%
238160	Roofing Contractors	2.29%
238210	Electrical Contractors and Other Wiring Installation Contractors	8.69%
238220	Plumbing, Heating, and Air-Conditioning Contractors	5.68%
238310	Drywall and Insulation Contractors	1.14%
238320	Painting and Wall Covering Contractors	0.90%
238340	Tile and Terrazzo Contractors	1.09%
238910	Site Preparation Contractors	13.08%
238990	All Other Specialty Trade Contractors	3.36%
321918	Other Millwork (including Flooring)	1.74%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.80%
423830	Industrial Machinery and Equipment Merchant Wholesalers	0.98%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	0.89%
541310	Architectural Services	1.10%
541330	Engineering Services	4.01%
541820	Public Relations Agencies	2.06%
561612	Security Guards and Patrol Services	2.05%
561730	Landscaping Services	3.78%
922160	Fire Protection	0.66%
TOTAL		100.0%

Source: CHA analysis of MNAA data

Table 13a: Aggregated Weighted Availability – Federal-Aid Contracts

Demographic Group	Weighted Availability
Black	3.38%
Hispanic	0.38%
Asian	0.50%
Native American	0.78%
White Women	3.48%
MBE	5.05%
M/WBE	8.53%
Non-M/WBE	91.47%

Source: CHA analysis of MNAA data; Hoovers; CHA Master Directory

Table 13b: Aggregated Weighted Availability – Locally-Funded Contracts

Demographic Group	Weighted Availability
Black	4.08%
Hispanic	0.42%
Asian	0.59%
Native American	0.45%
White Women	6.73%
MBE	5.54%
M/WBE	12.27%
Non-M/WBE	87.73%

Source: CHA analysis of MNAA data; Hoovers; CHA Master Directory

E. Analysis of Race and Gender Disparities in MNAA’s Utilization of Disadvantaged, Minority- and Women-Owned Business Enterprises

To meet the strict scrutiny requirement that MNAA consider evidence of disparities to establish its compelling interest in remedying discrimination in its market area, we next calculated disparity ratios for total D/M/WBE utilization compared to the total weighted availability of D/M/WBEs on the Authority’s locally-funded contracts, measured in dollars paid. 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%. As discussed in Chapter II, 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. Table 13 provides the results of our analysis.¹⁶²

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 substantively significant disparity supports the inference that the result may be caused by the disparate impacts of discrimination.¹⁶³ A statistically significant disparity means that an outcome is unlikely to have occurred as the result of random chance alone. The greater the statistical significance, the smaller the probability that it resulted from random chance alone. A more in depth discussion of statistical significance is provided in Appendix D.

Disparities were substantively significant for Hispanics and Native Americans. No disparities were statistically significant for any group. We note that the smaller, less complex nature of the Authority’s non- federal-aid contracts, combined with contract goals and aggressive outreach, has resulted in parity for DM/WBEs. However, in light of the economy-wide disparities documented in Chapter V, we do not conclude that there is no longer a compelling need for the SMWBE program. Rather, these results suggest that the program has been successful in reducing barriers to participation and those efforts should be continued.

Table 13: Disparity Ratios by Demographic Group for Locally-Funded Contracts

Demographic Group	Disparity Ratio
Black	214.72%
Hispanic	9.66%*
Asian	172.60%
Native American	7.40%*
White Women	103.64%
MBE	177.85%
D/M/WBE	137.15%
Non-D/M/WBE	94.81%

* Indicates substantive significance

Source: CHA analysis of MNAA data; Hoovers; CHA Master Directory

¹⁶² 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.

¹⁶³ 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.”).

V. Analysis of Race and Gender Barriers in the Tennessee 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.¹⁶⁴

This Chapter explores the data and literature relevant to how discrimination in MNAA's market and throughout the wider economy affects the ability of minorities and women to fairly and fully engage in the Airport's contract opportunities. First, we analyzed the rates at which M/WBEs in Tennessee 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 Airport procures goods and services is an analysis of the extent of disparities in those sectors independent of MNAA'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 of whether the market functions properly for all firms regardless of the race or gender of their ownership.¹⁶⁵

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

¹⁶⁴ Arrow, Kenneth J., "What Has Economics to say about racial discrimination?", *Journal of Economic Perspectives*, (1998), 12(2), pp. 91-100.

¹⁶⁵ See the discussion in Chapter II of the legal standards applicable to contracting affirmative action programs.

in the MNAA's marketplace.¹⁶⁶ In particular, we focused on the Census Bureau's delineated five sectors in which MNAA procures:

- Construction
- Construction-related Services
- Information technology
- Goods
- 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.¹⁶⁷

Using both data sets, we found disparities for minorities and women in the five sectors that we studied in the State of Tennessee's marketplace. Overall, the results of our analyses of the Tennessee 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 Airport's marketplace, MNAA will function as a passive participant in these potentially discriminatory outcomes.¹⁶⁸

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

¹⁶⁶ 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.

¹⁶⁷ Data from 2008-2012 American Community Survey are the most recent for a five year period.

¹⁶⁸ Various appendices to this study 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."

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 report to the Internal Revenue Service receipts of \$1,000 or more.¹⁶⁹ 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:^{170, 171}

- 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 or firms where the ownership could not be classified by race, gender, or ethnicity

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, hence, our sector definition will not exactly correspond to the definitions used with the contract data where we are able to determine sectors at the 6-digit NAICS code level. To attempt an analysis at a more detailed level would fail as when the number of firms sampled in particular demographic and sector cells are so small, the Census Bureau does not report the information. This is either to avoid disclosing data on businesses that can be identified or because the small sample size generates unreliable estimates of the universe.¹⁷² Table 1 presents information on which NAICS codes were used to define each sector.

¹⁶⁹ See <http://www.census.gov/econ/sbo/about.html> for more information on the Survey.

¹⁷⁰ Race and gender labels reflect the categories used by the Census Bureau.

¹⁷¹ 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.

¹⁷² Even with these broad sector definitions, we were unable to perform the analysis for many demographic groups in several sectors.

Table 1. 2-Digit NAICS Code Definition of Sector

Sector	SBO Sector Label	2-Digit NAICS Codes
Construction	Construction	23
Construction-related Services	Professional, Scientific, and Technical Services	54
Information Technology	Information	51
Goods	Goods	31, 42, 44
Services	Services	48, 52, 53, 56, 61, 62, 71, 72, 81

The balance of this Chapter section reports the findings of the SBO analysis. For each sector, we will present data describing the sector and report on disparities within the sector. We utilize the SBO sector labels as we discuss the different industries.

Table 2 presents SBO data for all industries in Tennessee. It indicates very large disparities¹⁷³ in utilization between non-White owned firms and White male owned firms and White female owned firms and White male owned firms when examining the sales of all firms and the sales of employer firms (firms that employ at least one worker). These disparities still exist, albeit at a small level, when examining the payroll of employer firms except for Native American firms. For the four non-White groups and White women, the disparity ratio in the first two measures was under 35%. In contrast, disparity ratios for White male firms were exceeded 57%.^{174, 175} With the last disparity measure, the ratio for Black, Latino and Asian firms and White women firms rise to between 58% and 73% while the ratio for White men rises to 97%. It is important to note the disparity ratios for “Firms Not Classifiable”. These are publicly traded firms and their share

¹⁷³ As explained in Chapter IV, 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.¹⁷³ 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.

¹⁷⁴ The Survey of Business Owners data available via American Fact Finder do not permit the use of regression analysis on these results.

¹⁷⁵ 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.”).

of sales and payroll most often far exceeds their share to total number of firms.^{176 177}

Table 2: Disparity Ratios of Firm Performance Measures, All Industries, Survey of Business Owners, 2007

	Ratio of Share of Sales to Share of Firms	Ratio of Share of Sales to Share of Employer Firms	Ratio of Share of Payroll to Share of Employees
Panel A: Disparity Ratios for Non-White Firms			
Black	6.43%	17.94%	70.13%
Latino	20.11%	23.27%	65.04%
Native	24.20%	35.19%	290.25%
Asian	31.87%	16.21%	58.41%
Panel B: Disparity Ratios for All Firms			
Non-White	13.18%	18.97%	73.07%
White Women	17.20%	26.16%	70.84%
White Men	57.70%	51.10%	96.86%
Equally Non-White & White	----	----	----
Equally Women & Men	24.03%	18.72%	67.72%
Not Classifiable	2437.80%	598.09%	108.88%
All Firms	100.00%	100.00%	100.00%

Table 3 presents data on firm performance in the construction industry. Where the data was available, the distinction between White male owned firms, on the one hand, and non-White owned firms and White women owned firms, on the other hand, increased. As before, Publicly-traded firms dominate the industry.

¹⁷⁶ Results could not be produced for those firms that were equally owned by non-Whites and Whites. This is because the estimates did not meet the SBO's standards for publication. Throughout this section, the notation "----" will be used when estimates do not meet SBO standards or when publishing data might disclose individual firm data.

¹⁷⁷ Appendix E presents the data underlying these disparity ratios.

**Table 3: Disparity Ratios of Firm Performance Measures,
Construction, Survey of Business Owners, 2007**

	Ratio of Share of Sales to Share of Firms	Ratio of Share of Sales to Share of Employer Firms	Ratio of Share of Payroll to Share of Employees
Panel A: Disparity Ratios for Non-White Firms			
Black	22.75%	44.24%	86.26%
Latino	41.36%	-----	-----
Native	29.60%	73.88%	85.82%
Asian	58.97%	-----	-----
Panel B: Disparity Ratios for All Firms			
Non-White	-----	-----	-----
White Women	89.41%	88.82%	99.52%
White Men	102.47%	103.14%	101.00%
Equally Non-White & White	-----	-----	-----
Equally Women & Men	57.96%	43.74%	81.16%
Not Classifiable	1306.35%	305.13%	111.63%
All Firms	100.00%	100.00%	100.00%

Table 4 reports data from the Professional, Scientific, and Technical Services industry. In this sector, the dominance of publicly-traded firms is even greater than in Construction or All Industries. Among firms that are not publicly-traded, the previous patterns are maintained except when examining the disparity ratios for Asians. For Asian-owned firms, the key performance metrics exceed those of all other demographic groups.

**Table 4: Disparity Ratios of Firm Performance Measures
Professional, Scientific, and Technical Services,
Survey of Business Owners, 2007**

	Ratio of Share of Sales to Share of Firms	Ratio of Share of Sales to Share of Employer Firms	Ratio of Share of Payroll to Share of Employees
Panel A: Disparity Ratios for Non-White Firms			
Black	23.83%	35.52%	68.98%
Latino	39.09%	50.00%	40.01%
Native	44.41%	63.35%	114.85%
Asian	152.02%	141.32%	124.38%
Panel B: Disparity Ratios for All Firms			
Non-White	-----	-----	-----
White Women	33.87%	44.09%	70.99%
White Men	88.63%	74.35%	99.20%
Equally Non-White & White	31.11%	-----	-----
Equally Women & Men	52.13%	44.97%	62.42%
Not Classifiable	2079.77%	550.48%	118.86%
All Firms	100.00%	100.00%	100.00%

Data on the Information industry is presented in Table 5. Sampling and confidentiality issues preclude a disparity ratio analysis at the same depth of the preceding industries, but some initial patterns do emerge. Black, Latino, Asian, and White women firms are severely underutilized: with the first performance measure, the disparity ratios are under 5%. White male firms have a higher level of utilization when examining the ratio of share of sales to share of firms; however, these disparity ratios still fail to exceed 21%. The share of sales relative to the share of number of firms is extremely high for publicly traded firms.

**Table 5: Disparity Ratios of Firm Performance Measures
Information, Survey of Business Owners, 2007**

	Ratio of Share of Sales to Share of Firms	Ratio of Share of Sales to Share of Employer Firms	Ratio of Share of Payroll to Share of Employees
Panel A: Disparity Ratios for Non-White Firms			
Black	2.31%	----	----
Latino	3.91%	----	----
Native	----	----	----
Asian	1.10%	0.36%	26.29%
Panel B: Disparity Ratios for All Firms			
Non-White	3.04%	----	----
White Women	4.90%	7.28%	69.20%
White Men	20.38%	20.48%	84.80%
Equally Non-White & White	----	----	----
Equally Women & Men	8.19%	7.48%	68.13%
Not Classifiable	1836.33%	377.11%	105.32%
All Firms	100.00%	100.00%	100.00%

Table 6 contains data on the Goods industry. Here we are able to compare the performance measures among various non-White firms, White female firms, and White male firms with the exception of Native American firms. The utilization of White male firms is greater than that of any of the other demographic groups.

**Table 6: Disparity Ratios of Firm Performance Measures
Goods, Survey of Business Owners, 2007**

	Ratio of Share of Sales to Share of Firms	Ratio of Share of Sales to Share of Employer Firms	Ratio of Share of Payroll to Share of Employees
Panel A: Disparity Ratios for Non-White Firms			
Black	6.40%	33.07%	88.22%
Latino	20.79%	37.40%	93.95%
Native	----	----	----
Asian	23.48%	13.56%	70.62%
Panel B: Disparity Ratios for All Firms			
Non-White	----	----	----
White Women	14.26%	23.92%	78.80%
White Men	57.42%	47.35%	100.73%
Equally Non-White & White	----	----	----
Equally Women & Men	13.57%	14.81%	75.99%
Not Classifiable	1608.59%	592.49%	103.38%
All Firms	100.00%	100.00%	100.00%

As presented in Table 7, few details about performance by non-White firms in the Services industry are available due to sampling and disclosure issues. The data for White women firms, White men firms, and Publicly-traded firms follow earlier patterns: White men have higher disparity ratios than White women; and the disparity ratios for these firms are much smaller than those of publicly-traded firms.

**Table 7: Disparity Ratios of Firm Performance Measures
Services, Survey of Business Owners, 2007**

	Ratio of Share of Sales to Share of Firms	Ratio of Share of Sales to Share of Employer Firms	Ratio of Share of Payroll to Share of Employees
Panel A: Disparity Ratios for Non-White Firms			
Black	8.52%	----	----
Latino	----	----	----
Native	----	----	----
Asian	----	----	----
Panel B: Disparity Ratios for All Firms			
Non-White	----	----	----
White Women	15.73%	22.83%	67.35%
White Men	62.08%	52.02%	94.49%
Equally Non-White & White	----	----	----
Equally Women & Men	----	----	----
Not Classifiable	2086.63%	484.34%	111.53%
All Firms	100.00%	100.00%	100.00%

Source: CHA calculations from the Survey of Business Owners

We found disparities for minorities and women in the five sectors that we studied in MNAA’s marketplace. Overall, the results of our analyses of the Tennessee 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 Authority’s marketplace, it will function as a passive participant in these potentially discriminatory outcomes.¹⁷⁸

¹⁷⁸ 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.”

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 Airport's Business Enterprise Programs.

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.¹⁷⁹

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.¹⁸⁰ 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

¹⁷⁹ 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).

¹⁸⁰ For more information about the ACS PUMS, please see <http://www.census.gov/acs/>.

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 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.¹⁸¹

We report data on the Construction, Construction-Related Services, Information Technology, Goods, and 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 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).

1. All Industries in Tennessee

a. Business Formation Rates

Table 8 presents business formation rates in the Tennessee economy by demographic groups.

**Table 8: Business Formation Rates,
All Industries, 2010-2012**

Demographic Group	Business Formation Rates
Black	4.65%
Hispanic	7.38%
Native American	13.16%
Asian/Pacific Islander	11.60%
Other	14.29%
MBE	6.11%
White Women	8.03%
MWBE	7.37%
White Male	14.58%

Source: CHA calculations from the American Community Survey

White males have a higher rate of business formation than Non-White males. However, as with the issue of income and earnings differences, the higher rates could be attributed to factors aside from race and/or gender. To explore this question further, a probit regression statistical technique was employed.¹⁸² The

¹⁸¹ Most social scientists do not endorse utilizing a confidence level of less than 95%. Appendix D explains more about statistical significance.

¹⁸² Probit is a special type of regression technique where the dependent variable only has two possible values: 0 or 1. For instance, the unit of observation is an individual and he/she forms a business or does not form a business. In the former case, the value of the dependent variable would be 1 while in the latter case, the value of the dependent variable would be 0. This is in contrast to the multiple regression technique discussed earlier where the dependent variable such as wages might have any non-negative value. For a more extensive discussion of probit regression analysis, see Appendix B.

basic question is: how does the probability of forming a business vary as factors such as race, gender, etc. vary?

Table 9 presents the results of the probit analysis for the Tennessee economy.

Table 9: Business Formation Probabilities Relative to White Males, All Industries, 2010-2012

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-5.9%***
Hispanic	-3.4%***
Native American	-4.8%***
Asian/Pacific Islander	-1.6%***
Other	-1.2%***
White Women	-2.8%***

Source: CHA calculations from the American Community Survey
 *** indicates statistical significance at the 0.001 level

The analysis indicates that non-Whites and White women in Tennessee are less likely than White men to form businesses even after controlling for key factors. The reduction in probability ranges from 1.2% to 5.9%. These estimates are statistically significant at the 99.1 level.

b. Differences in Wage and Salary Incomes

Table 10 presents the findings from the wage and salary income regression analysis examining the Tennessee economy. This indicates the wage differential for selected demographic groups in Tennessee relative to White men.

Table 10: Wage Differentials for Selected Groups Relative to White Men, All Industries, 2010-2012

Demographic Group	Earnings Relative to White Men (% Change)
Black	-.352***
Hispanic	-.213***
Native American	-.35***
Asian/Pacific Islander	-.297***
Other	-.265***
White Women	-.247***

Source: CHA calculations from the American Community Survey
 *** Indicates statistical significance at the 0.001 level

Holding constant factors such as education, age, occupation, and industry, Blacks, Hispanics, White women, Asian/Pacific Islanders and Others in Tennessee earn less than White men in the overall economy. Estimates of the coefficients for Black, Hispanic, Native American, and White Women are statistically significant at the 0.001 level. Estimates of the coefficients for Others

are statistically significant at the 0.01 level. For example, we are 99.9% confident that wages for Blacks in Tennessee (after controlling for numerous other factors) are 35.2% less than those received by White men.

c. Differences in Business Earnings

The same approach was used to investigate if there were differences in business earnings received by Non-Whites and White women 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 11 presents these findings.

Table 11: Business Earnings Differentials for Selected Groups Relative to White Men, All Industries, 2010-2012

Demographic Group	Earnings Relative to White Men (% Change)
Black	-.485***
Hispanic	-.291***
Native American	-.523***
Asian/Pacific Islander	-.252***
Other	-.145*
White Women	-.572***

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

* Indicates statistical significance at the 0.05 level

Once again, the estimates of the coefficients for these variables were found to be statistically significant at the 0.001 and 0.05 levels. The differentials in business earnings received by Non-Whites and White women compared to White males ranged from -15% to -57%.

d. Conclusion

Using descriptive analysis, Table 8 shows that differentials exist between the business formation rates by Non-Whites and White women and White males across industry sectors. Table 9 presents the results of a further statistical analysis, which indicated that even after taking into account potential mitigating factors, the differential still exists. Tables 10 and 11 present data indicating differentials in wages and business earnings after controlling for possible explanatory factors. These analyses support the conclusion that barriers to business success do affect Non-Whites and White women entrepreneurs.

2. The Construction Industry in Tennessee

a. Business Formation Rates

Table 12 presents business formation rates in the Tennessee construction industry for selected demographic groups.

Table 12: Business Formation Rates, Construction, 2010-2012

Demographic Group	Business Formation Rates
Black	20.37%
Hispanic	11.11%
Native American	0.00%
Asian/Pacific Islander	55.56%
Other	0.00%
MBE	15.79%
White Women	16.95%
MWBE	16.23%
White Male	33.79%

Source: CHA calculations from the American Community Survey

White males have higher business formation rates for all demographic groups except for Asian/Pacific Islanders. Table 13 presents data on the probability of forming a business (as generated by the probit analysis) in the Tennessee construction industry for selected demographic groups to examine if this pattern exists after controlling for certain socio-economic factors.

Table 13: Business Formation Probabilities Relative to White Males, Construction, 2010-2012

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-8.8%***
Hispanic	-5.9%***
Native American	-9.9%***
Asian/Pacific Islander	-1.6%***
Other	1.9%***
White Women	-2.2%***

Source: CHA calculations from the American Community Survey

*** indicates statistical significance at the 0.001 level

The analysis indicates that Non-Whites (except for Others) and White women in Tennessee are less likely to form construction businesses compared to White men even after controlling for key factors. The reduction in probability ranges from 1.6% to 9.9%. Once again, these estimates are statistically significant at the 99.1 level.

b. Differences in Wage and Salary Incomes

Table 14 presents the findings from the wage and salary income regression analysis examining the construction industry in Tennessee. This indicates the wage differential for selected demographic groups in Tennessee relative to White men.

Table 14: Wage Differentials for Selected Groups Relative to White Men, Construction, 2010-2012

Demographic Group	Earnings Relative to White Men (% Change)
Black	-.358***
Hispanic	-.144***
Native American	-.334***
Asian/Pacific Islander	-.197***
Other	-.133**
White Women	-.341***

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

** Indicates statistical significance at the 0.01 level

Holding constant factors such as education, age, occupation, and industry, Blacks, Hispanics, White women, Asian/Pacific Islanders and Others in Tennessee earn less than White men in the overall economy. Estimates of the coefficients for Black, Hispanic, Native American, and White Women are statistically significant at the 0.001 level. Estimates of the coefficients for Others are statistically significant at the 0.01 level. For example, we are 99.9% confident that wages for Blacks in Tennessee (after controlling for numerous other factors) are 35.8% less than those received by White men.

c. Differences in Business Earnings

The same approach was used to investigate if there were differences in business earnings received by Non-Whites and White women entrepreneurs and White male entrepreneurs in construction. 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 15 presents these findings.

Table 15: Business Earnings Differentials for Selected Groups Relative to White Men, Construction, 2010-2012

Demographic Group	Earnings Relative to White Men (% Change)
Black	-.518***
Hispanic	-.0928***
Native American	-.285**
Asian/Pacific Islander	-.152**
Other	-0.292

White Women	-.521***
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Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

** Indicates statistical significance at the 0.01 level

With the exception of the estimated coefficient for Other, the estimates of the coefficients for these variables were found to be statistically significant at the 0.001 or 0.01 levels. The differentials in business earnings received by Non-Whites and White women compared to White males ranged from 9% less to 52% less. For the estimated coefficient for Other, the results were not found to be significantly statistically different from zero.

d. Conclusion

Using descriptive analysis, Table 12 shows that differentials exist between the business formation rates by Non-White males and White males. Table 13 presents the results of a further statistical analysis, which indicated that even after taking into account potential mitigating factors, the differential still exists. Tables 14 and 15 present data indicating differentials in wage and business earnings after controlling for possible explanatory factors. These analyses support the conclusion that barriers to business success do affect most Non-Whites and White women construction entrepreneurs.

3. The Construction-Related Services Industry in Tennessee

a. Business Formation Rates

Table 16 presents business formation rates in the construction-related services industry in Tennessee for selected demographic groups. (Throughout this section the coefficients on Black, Hispanic, Native American, and Other entrepreneurs are recorded as zero. This is because there were insufficient observations in the sample to make statistically reliable estimates.)

**Table 16: Business Formation Rates,
Construction-Related Services, 2010-2012**

Demographic Group	Business Formation Rates
Black	0.00%
Hispanic	0.00%
Native American	0.00%
Asian/Pacific Islander	0.00%
Other	0.00%
MBE	0.00%
White Women	6.25%
MWBE	4.35%
White Male	18.02%

Source: CHA calculations from the American Community Survey

White males have a higher rate of business formation than White Women Non-White males. Table 17 presents the results of the probit analysis for the construction-related services industry in Tennessee to examine if this pattern exists after controlling for certain socio-economic factors.

Table 17: Business Formation Probabilities Relative to White Males, Construction-Related Services, 2010-2012

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-0.0
Hispanic	-0.0
Native American	0.0
Asian/Pacific Islander	-0.0
Other	-0.0
White Women	-1.0%***

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

White Women are less likely to form businesses in the construction-related services industry than White Males. There is a 1.0% lower probability and this finding is statistically significant at the 0.001 level.

b. Differences in Wage and Salary Incomes

Table 18 presents the findings from the wage and salary income regression analysis examining the construction-related services industry in Tennessee. This indicates the wage differential for selected demographic groups in Tennessee relative to White men.

Table 18: Wage Differentials for Selected Groups Relative to White Men, Construction-Related Services, 2010-2012

Demographic Group	Earnings Relative to White Men (% Change)
Black	-.254***
Hispanic	-.197***
Native American	-.352***
Asian/Pacific Islander	-.195***
Other	-.221*
White Women	-.334***

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

* Indicates statistical significance at the 0.05 level

Holding constant factors such as education, age, occupation, and industry, Blacks, Hispanics, White women, Asian/Pacific Islanders and Others in Tennessee earn less than White men in the construction-related services industry. The differential ranges between 20% less and 35% less. Estimates of

the coefficients for, Black, Hispanic, Native American, Asian/Pacific Islander, and White Women are statistically significant at the 0.001 level. The estimated coefficient for Other is statistically significant at the 0.05 level.

c. Differences in Business Earnings

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 19 presents these findings.

Table 19: Business Earnings Differentials for Selected Groups Relative to White Men, Construction-Related Services, 2010-2012

Demographic Group	Earnings Relative to White Men (% Change)
Black	-0.0
Hispanic	-0.0
Native American	-0.0
Asian/Pacific Islander	-0.0
Other	-0.0
White Women	-.87***

Source: CHA calculations from the American Community Survey
 *** Indicates statistical significance at the 0.001 level

White Women earned 87% less than White Males in this industry. This finding is statistically significant at the 0.001 level. (Once again, there was insufficient data to make a reliable estimate for Other demographic groups.)

d. Conclusion

Using descriptive analysis, Table 16 shows that differentials exist between the business formation rates by White Women and White males. Table 17 presents the results of a further statistical analysis, which indicated that even after taking into account potential mitigating factors, the differential still exists. Tables 18 and 19 present data indicating differentials in wage and business earnings after controlling for possible explanatory factors. This analysis is more limited than the analysis in other industries due to the paucity of observations in the data sample.

6. The Goods Industry in Tennessee

a. Business Formation Rates

Table 20 presents business formation rates in the goods industry in Tennessee for selected demographic groups. (As in the previous section, the coefficients on Hispanic, Native American, and Other entrepreneurs are recorded as zero. This is because there were insufficient observations in the sample to make statistically reliable estimates.)

**Table 20: Business Formation Rates,
Goods, 2010-2012**

Demographic Group	Business Formation Rates
Black	5.69%
Hispanic	0.00%
Native American	0.00%
Asian/Pacific Islander	21.43%
Other	0.00%
MBE	6.74%
White Women	5.56%
MWBE	5.92%
White Male	9.15%

Source: CHA calculations from the American Community Survey

White males have a higher rate of business formation than the other demographic groups we could study with the exception of Asian/Pacific Islanders. Table 21 presents the results of the probit analysis for the goods industry in Tennessee to examine if this pattern exists after controlling for certain socio-economic factors.

**Table 21: Business Formation Probabilities Relative to White Males,
Goods, 2010-2012**

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-36.8%***
Hispanic	0.00%
Native American	0.00%
Asian/Pacific Islander	22.9%***
Other	0.00%
White Women	-2.3%***

Source: CHA calculations from the American Community Survey

The analysis indicates that Blacks and White women in Tennessee are less likely to form goods businesses compared to White men even after controlling for key factors. (Once again, this analysis does not include Hispanics, Native Americans and Others.) The reductions in probability are from 36.8% for Blacks% and 2.3% for White Women. However, Asian/Pacific Islanders were more likely to form businesses in this industry relative to White men by 22.9%. These estimates are statistically significant at the 99.1 level.

b. Differences in Wage and Salary Incomes

Table 22 presents the findings from the wage and salary income regression analysis examining the goods industry in Tennessee. This indicates the wage differential for selected demographic groups in Tennessee relative to White men.

Table 22: Wage Differentials for Selected Groups Relative to White Men, Goods, 2010-2012

Demographic Group	Earnings Relative to White Men (% Change)
Black	-.164*
Hispanic	-.22***
Native American	-.34***
Asian/Pacific Islander	-.374***
Other	-.404***
White Women	-.244**

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

** Indicates statistical significance at the 0.01 level

* Indicates statistical significance at the 0.05 level

Holding constant factors such as education, age, occupation, and industry, Blacks, Hispanics, White women, Asian/Pacific Islanders and Others in Tennessee earn less than White men in the goods industry. The differential ranges between 16% less and 40% less. Estimates of the coefficients for, Hispanic, Native American, Asian/Pacific Islander, and Other, and White Women are statistically significant at the 0.001 level. The estimates of the coefficient for Black are statistically significant at the 0.01 level.

c. Differences in Business Earnings

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 23 presents these findings.

Table 23: Business Earnings Differentials for Selected Groups Relative to White Men, Goods, 2010-2012

Demographic Group	Earnings Relative to White Men (% Change)
Black	-.651***
Hispanic	0
Native American	0
Asian/Pacific Islander	-.155*

Other	0
White Women	-.776***

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

* Indicates statistical significance at the 0.05 level

Once again, reliable estimates could only be calculated for Blacks, Asian/Pacific Islanders, and White Women. With each of these groups, business earnings are less than White Men and the earnings are between 15% and 78% less. The estimates of the coefficients for the Black and White Women variables were found to be statistically significant at the 0.001 level. The estimated coefficient for Asian/Pacific Islanders was statistically significant at the 0.05 level.

d. Conclusion

Using descriptive analysis, Table 20 shows that differentials exist between the business formation rates by Blacks, Asian/Pacific Islanders and White women and White males in the goods industry. Table 21 presents the results of a further statistical analysis, which indicated that even after taking into account potential mitigating factors, the differential still exists. Tables 22 and 23 present data indicating differentials in wage and business earnings after controlling for possible explanatory factors. These analyses support the conclusion that barriers to business success do affect Non-Whites and White women entrepreneurs.

5. The Services Industry in Tennessee

a. Business Formation Rates

Table 24 presents business formation rates in the services industry in Tennessee for selected demographic groups.

**Table 24: Business Formation Rates,
Services, 2010-2012**

Demographic Group	Business Formation Rates
Black	4.19%
Hispanic	8.03%
Native American	8.70%
Asian/Pacific Islander	9.42%
Other	0.00%
MBE	5.52%
White Women	8.97%
MWBE	7.86%
White Male	16.27%

Source: CHA calculations from the American Community Survey

White males have a higher rate of business formation than Non-White males. However, as with the issue of income and earnings differences, the higher rates could be attributed to factors aside from race and/or gender. To explore this possibility, Table 25 presents the results of the probit analysis for the services industry in Tennessee.

Table 25: Business Formation Probabilities Relative to White Males, Services, 2010-2012

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-5.5%***
Hispanic	-3.1%***
Native American	-5.1%***
Asian/Pacific Islander	-2.4%***
Other	-2.1%***
White Women	-2.7%***

Source: CHA calculations from the American Community Survey
 *** Indicates statistical significance at the 0.001 level

The analysis indicates that compared to White men, Non-Whites and White women in Tennessee are less likely to form services businesses even after controlling for key factors. The reduction in probability ranges from 2.1% less to 5.5% less. Once again, these estimates are statistically significant at the 0.001 level.

b. Differences in Wage and Salary Incomes

Table 26 presents the findings from the wage and salary income regression analysis examining the services industry in Tennessee. This indicates the wage differential for selected demographic groups in Tennessee relative to White men.

Table 26: Wage Differentials for Selected Groups Relative to White Men, Services, 2010-2012

Demographic Group	Earnings Relative to White Men (% Change)
Black	-.32***
Hispanic	-.056*
Native American	-.309***
Asian/Pacific Islander	-.262***
Other	-.255***
White Women	-.223***

Source: CHA calculations from the American Community Survey
 *** Indicates statistical significance at the 0.001 level
 * Indicates statistical significance at the 0.05 level

Holding constant factors such as education, age, occupation, and industry, Blacks, Hispanics, White women, Asian/Pacific Islanders and Others in

Tennessee earn less than White men in the services industry. The differential ranges between 6% less and 32% less. Estimates of the coefficients for Black, Hispanic, Asian/Pacific Islander, and Other, and White Women are statistically significant at the 0.001 level. Estimates of the coefficients for Native American are statistically significant at the 0.05 level.

c. Differences in Business Earnings

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 27 presents these findings.

Table 27: Business Earnings Differentials for Selected Groups Relative to White Men, Services, 2010-2012

Demographic Group	Earnings Relative to White Men (% Change)
Black	-.446 ^{***}
Hispanic	-.371 ^{***}
Native American	-.641 ^{***}
Asian/Pacific Islander	-.334 ^{***}
Other	-.288 ^{**}
White Women	-.565 ^{***}

Source: CHA calculations from the American Community Survey

^{***} Indicates statistical significance at the 0.001 level

^{**} Indicates statistical significance at the 0.01 level

The estimates of the coefficients for these variables were found to be statistically significant at the 0.001 or 0.01 levels. The differentials in business earnings received by Non-Whites and White women compared to White males ranged from 27% less to 64% less.

d. Conclusion

Using descriptive analysis on data from the services industry, Table 24 shows that differentials exist between the business formation rates by Non-White males and White males. Table 25 presents the results of a further statistical analysis, which indicated that even after taking into account potential mitigating factors, the differential still exists. Tables 26 and 27 present data indicating differentials in wage and business earnings after controlling for possible explanatory factors. These analyses support the conclusion that barriers to business success do affect Non-Whites and White women entrepreneurs.

B. Evidence of Disparities in Access to Business Capital

Capital is the lifeblood of any business. 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.¹⁸³

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 history, credit score and wealth. Blacks and Hispanics were also more likely to pay higher interest rates on the loans they did receive.¹⁸⁴

A recent report to the U.S. Department of Commerce summarizes these Surveys, results from the Kauffman Firm Survey,¹⁸⁵ data from the U.S. Small Business Administration’s Certified Development Company/504 Guaranteed Loan Program¹⁸⁶ 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.”¹⁸⁷

¹⁸³ 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).

¹⁸⁴ 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),

¹⁸⁵ http://www.kauffman.org/~media/kauffman_org/research%20reports%20and%20covers/2013/06/kauffmanfirmsurvey2013.pdf.

¹⁸⁶ <http://www.sba.gov/category/navigation-structure/loans-grants/small-business-loans/sba-loan-programs/real-estate-and-eq>.

¹⁸⁷ 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.

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.
- 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.¹⁸⁸
- 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.

¹⁸⁸ See Bates, T., "Venture Capital Investment in Minority Business," *Journal of Money Credit and Banking* 40, 2-3 (2008).

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.¹⁸⁹

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 MNAA. This disadvantages minorities, whose earlier 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.¹⁹⁰ Black men have been found to face a “triple disadvantage” as 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.¹⁹¹

Intergenerational links are also critical to the success of the businesses that do form.¹⁹² 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.¹⁹³ 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.¹⁹⁴ The U. S. Department of Commerce has reported that

¹⁸⁹ Fairlie, R.W. and Robb, A., *Race and Entrepreneurial Success: Black-, Asian- and White-Owned Businesses in the United States*, (Cambridge: MIT Press, 2008).

¹⁹⁰ Fairlie, R W., “The Absence of the African American Owned Business, An Analysis of the Dynamics of Self-Employment,” *Journal of Labor Economics*, (1999).

¹⁹¹ Hout, M. and Rosen, H. S., “Self-employment, Family Background, and Race,” *Journal of Human Resources* 35, no.4 (2000).

¹⁹² 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).

¹⁹³ *Id.*

¹⁹⁴ Allen, W. D., “Social Networks and Self-Employment,” *Journal of Socio-Economics* 29, no.5 (2000).

the ability to form strategic alliances with other firms is important for success.¹⁹⁵ In our interviews, MBEs 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 MNAA's contracts is the type and quality that courts have looked to determine whether a compelling interest in remedying discrimination exists.

¹⁹⁵ Increasing MBE Competitiveness through strategic Alliances (Minority Business Development Agency, 2008).

VI. Qualitative Evidence of Race and Gender Disparities in the Nashville Economy

To explore anecdotal evidence of possible discrimination against minorities and women in MNAA's marketplace, we met with 51 business owners and trade group representatives from a broad cross section of the industries from which the Airport purchases services and goods. Firms ranged in size from large regional businesses 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 contracts, and with MNAA's DBE and SMWBE Programs.

This effort gathered individual perspectives on possible barriers to full and fair access to the Airport's prime contracts and associated subcontracts to augment the statistical information. Experiences with MNAA's DBE and SMWBE programs are reported in Chapter III. We also elicited recommendations for improvements to the Airport's Programs, reported below in Chapter VII.

The following are summaries of the issues discussed. Quotations are indented, and are usually representative of the views expressed by several participants. Some have been shortened for readability.

A. Discriminatory Attitudes and Negative Perceptions of Competence

Many owners still experience discriminatory attitudes and behaviors. The stereotypes about minorities' and women's of lack of competence infect all aspects of their attempts to obtain contracts and subcontracts, and to be treated equally in performing contract work. This was true across industries.

The perception [is] that we cannot deliver.

There is a very, very strong perception in this city that Blacks don't know what they're doing.

B. Exclusion from Industry and Information Networks

Minorities and women recounted their difficulties breaking into the industry and information networks necessary for success. Both the racial aspects of existing relationships and the close-knit nature of the Nashville business community operate to the disadvantage of M/WBEs, especially Black owners.

We've been in business since 1999 ... I know everybody got certain friendship and have a relationship, knowing each other for years and this and that. But being as a minority ... it just seem like it's a clique [I'm not part of].

There is a perception I think that people feel more comfortable with people who look like them.

People have relationships with people that they feel that they can identify with. And that might be a problem because they're not willing to open the door for you and let you get in.

People do feel better with using who they feel more comfortable with.

One Black entrepreneur provided this advice.

They do business with who they know.... The whole practice is to become one of the people that they know.... It's all a matter on the approach.... Find out who exactly is responsible for contracting in your area [of specialty] and go see them offline.

A White participant observed that it can be difficult for people of color to be the "only one" in a group.

I am sitting in a luncheon and there's not one person of color. Or there's one. And I'm thinking, this cannot be fair. And then I think, do I, if I was African-American, would I want to go endure all the pressure of being the one that stands out in the group?

C. Experiences in Obtaining Work on "Non- Goals" or Private Sector Projects

Minority and women owners were adamant that without contract goals, they would receive little or no work. There was close to universal agreement that the programs are essential to creating opportunities for work on Airport projects.

We wouldn't get calls.

There wouldn't be no more Black contractors.

If those DBE goals had not been in there, we absolutely would not have been considered.... In fact, we were pointblank told on a contract because they didn't have a DBE goal of some kind, they didn't even need to consider us.

When I call [prime firms] on a project and there aren't any goals they say, well, we don't need you on this one. There aren't any goals. And they're not bashful in saying it.

The prime contractor was bidding ... two projects at the same time.... And one had goals and one did not and they were more than happy to add us to the team here but literally we would have been doing the same exact service for them on both projects but because they didn't have goals over here, they literally said, well, we don't have goals so, of course, we don't need you.

[WBE certification is] what's helped me continue the business and grow. It's made a big difference in my business.

If it's race neutral, typically I'm not on that project. If the number is counted in, I usually am on that project.

[DBE goals] need to be there. I feel like I wouldn't even have any work with the Airport [without them].... I've had one [prime consultant] ask me to bid exclusive.... And my thought is, no I won't do that for you, especially if you're only going to use me on the projects that you have to use me on.

[For projects without] federal dollars, [large firms] really don't care. They will put a requirement in an R[equest F[or] P[roposals] or an R[equest] F[or] Q[ualifications], but they really don't care. There's no ramification for not [meeting goals].... I use my certification to target federal dollars.... Also, I'm targeting those construction companies on the private side that also have a requirement in their contract to satisfy participation. So, therefore, if I'm not getting it on the government side, then I'm looking for those large international contractors, prime contractors, that are going after these bids and partnering with them.

The federal is different and there's a lot more attention paid to the DBE goals. But where the funding source is local, you can just throw your hands up and move on because it's going to be a waste of time. It will be looking at that good faith sheet of paper and just checking the block and moving on because it doesn't matter.

Some DBEs stated they have fewer remedies for non-compliance by the prime firm and are subject to arbitrary substitutions on private sector jobs.

[General contractors] immediately say, well, you're off the jobs.

Where awards are based on points, not low price, DBEs had more opportunities.

[Prime consultants are] trying to get as many points in each category. So, if the DBE participation is five points out of a hundred points, when all these RFPs come in ... there's literally one point between them. So, it's been our experience that the primes do want to try to fulfill every category they can, as best they can.

A few White female participants reported that after they have worked together, primes use them on projects without goals.

I have really great partners and they call me [on non-goals jobs].

D. Barriers to Obtaining Work on Prime Contracts

Obtaining prime contracts was especially difficult. This barrier crossed industries, size of firms, and length of time in business. While all small firms find it more difficult to receive prime contract awards than do large firms, minorities

and women felt that their race, ethnicity and gender created additional barriers. Very few had received prime contracts with MNAA.

One explanation for this lack of participation on contracts without goals is the desire of prime firms to self-perform work.

The architects will self-perform [if there is no goal].

If there is not an incentive for them to offer that to a small minority business and he can do it cheaper if he's self-performing it, he's obviously going to say, I did my good faith but I'm going to do the work myself. And so the minority's going to be excluded, unless there is an incentive in there some place for them to award that to that minority.... If there is incentive for them to take a chance on you, then that puts more emphasis on having the program work on good faith.

One solution supported by D/M/WBEs and smaller firms is a small business set-aside approach.

E. Conclusion

Consistent with other evidence reported in this Study, anecdotal interview information suggests that minority and women business owners continue to suffer discriminatory barriers to full and fair access to MNAA's contracts, as well as private sector opportunities. This evidence includes discriminatory attitudes and negative perceptions and expectations of minorities' and women's competence; exclusion from industry and information networks; barriers to obtaining public sector contracts and the necessity for contract goals to create opportunities; barriers to obtaining work on contracts without goals or private sector projects; and lack of access to prime contract opportunities. While not definitive proof that the Authority has a compelling interest in implementing race- and gender-conscious remedies on its locally funded contracts for these impediments, the results of the personal interviews 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 MNAA would be a passive participant in a discriminatory marketplace without affirmative interventions.

VII. Recommendations for a Revised Disadvantaged Business Enterprise Program and a Small, Minority- and Women-Business Enterprise Program

The quantitative and qualitative data in this Disparity Study provide a thorough examination of the evidence regarding the experiences of minority- and women-owned firms in the Authority's product and geographic market areas. As required by strict scrutiny, we analyzed evidence of such firms' utilization by MNAA as measured by dollars spent on its prime contracts and associated subcontracts, as well as D/M/WBEs' experiences in obtaining contracts in the public and private sectors. We gathered statistical and anecdotal data to provide the Authority 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 MNAA has a compelling interest in remedying identified discrimination in its locally-funded contracts. In our judgment, the Study results fully support MNAA's compelling interest in continuing its SMWBE program. The statistical data and the anecdotal testimony provide a sufficient basis for remedial race- and gender-based measures to ensure full and fair access for all firms to Authority prime contracting and associated subcontracting opportunities. Further, the results provide a platform for narrowly tailoring a program for goals on local projects.

Based upon the results, we make the following recommendations that conform to strict scrutiny and reflect national best practices for D/M/WBE programs.

A. Augment Race- and Gender-Neutral Initiatives

The courts and the DBE Program regulations require that recipients like MNAA use race-neutral 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 agency's remedial purposes. Increased participation by DBEs through race-neutral measures will also reduce the need to set DBE contract goals. We therefore suggest the following enhancements of the Authority's current efforts, based on the business owner interviews, the input of staff, and national best practices for D/M/WBE programs.

1. Increase Outreach to Small Firms

More meetings should be held with the small business community to provide information and address questions regarding upcoming opportunities. While the annual outreach event is well regarded, more frequent and more in-depth seminars were requested by many firm owners. BDD should facilitate "match making" sessions between prime contractors and subcontractors,

subconsultants, suppliers and truckers to increase familiarity and comfort levels between the firms.

To increase the pool of firms that can be used to meet contract goals, MNAA should conduct additional outreach to uncertified minority- and women-owned firms. The Study identified many businesses owned by minorities and women that are not TNUCP DBE or MNAA SMWBE certified. BDD should aggressively pursue firms certified with other governments (cities, counties, etc.), as well as those identified through the Study, to encourage applications.

The study revealed that D/M/WBEs are receiving few opportunities in several industry codes.¹⁹⁶ For example, participation by Asian- and Hispanic-owned firms was limited to only one NAICS code each, with these groups receiving no dollars in any of the remaining industry subsectors. We therefore suggest that special outreach be conducted to firms in subsectors with little to no D/M/WBE participation, so that they are aware of opportunities and can make connections with other vendors as subcontractors or joint venture partners, in addition to considering submitting as prime vendors. Activities could include targeted emails about future contracts; matchmaking events for D/M/WBEs with prime vendors and MNAA staff focusing on those industries; and identification of firms that are not currently certified but might be eligible for inclusion to encourage applications.

2. Provide Greater Access to Contracting Information

Increased communication with the contracting community is critical. Owners of small firms reported difficulties in accessing information about particular solicitations, as well as policies and procedures related to the programs. MNAA has made significant strides towards using the Internet to provide access to information, and those efforts should be publicized, as many interviewees were unaware of how to find opportunities, including smaller contracts not subject to full formal procurement procedures. Email notices of pre-bid or pre-proposal inferences to firms certified in relevant NAICS codes might also increase participation. Documents such as the programs' regulations and compliance materials, including all forms and instructions, should be posted on the website for easy access.

In addition to more information, regularly scheduled training for external parties such as bidders, D/S/M/WBEs and interested organizations on how to comply with the programs would be helpful.

3. Review Contract Sizes and Scopes

Many business owners recommended breaking apart contracts into smaller scopes or less complex scopes, as a way to increase opportunities,

¹⁹⁶ See Table C, Executive Summary.

particularly for firms to serve as prime vendors. 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 is an element of MNAA's FAA-approved DBE program document, and strides have been made to implement this approach. Additional focus could assist certified firms to successfully pursue prime contracts, including possibly raising the informal contract threshold from \$10,000 to \$25,000.

4. Review Surety Bonding and Experience Requirements and Policies

MNAA should examine surety bonding and experience requirements so they are no greater than necessary to protect its interests. This might include removing the cost of the surety bond from the calculation of lowest apparent bidder on appropriate solicitations and increasing the dollar threshold below which bonds are not required, consistent with state law. The Airport should also review qualification requirements to ensure that D/M/WBEs and smaller firms are not unfairly disadvantaged and that there is adequate competition for its 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.

5. Adopt a Small Business Enterprise Target Market

Many small firms, both M/WBEs and non-M/WBEs, recommended creating a target market program that would set aside some smaller contracts for bidding only by certified Small Business Enterprises ("SBEs") as a way to create opportunities to work directly with the Airport. A SBE target market could be applied to FAA-funded projects and to locally-funded contracts.

As part of its FAA-approved DBE Program Plan document, MNAA has defined a SBE to mean a firm that is at least 51% owned and controlled by one or more individuals who are U.S. citizens or legal resident aliens; whose management and daily business operations are controlled by one or more of the individuals who own the small business; whose owner's personal net worth (PNW) does not exceed the PNW cap in 49 CFR Part 26; and that is not dominant in its field, and which meets Small Business Administration business size standard(s) found in 13 CFR Part 121. The Authority could seek approval to add the target market to its approved DBE plan document. Firms certified as DBEs or as small businesses under the SBA's 8(a) program are automatically SBE eligible; other owners must submit personal financial statements and tax returns.

To implement this concept, the Airport will have to determine the size limits for contracts, such as contracts under \$100,000, and the types of contracts to be included, such as only single scope jobs or multiple scope projects. Contracts less than \$50,000 that can be procured by soliciting three formal

quotes could be a focus for this approach. It will be critical to keep complete race and gender information on bidders to evaluate whether this is an effective race- and gender-neutral measure to reduce barriers.

6. Create a Bonding and Financing Program for SBEs

Access to bonding and working capital are two of the largest barriers to the development and success of D/M/WBEs and small firms. One approach that has proven to be effective for other agencies is to develop a MNAA-sponsored bonding and financing program for SBEs. This goes beyond the provision of information or counseling about bonding resources, such as the USDOT's Bonding Education program, to provide actual assistance to firms.

One model is the City and County of San Francisco's Surety Bond and Financing Program.¹⁹⁷ This Program makes bonding, financing and technical assistance available to eligible, certified contractors. The Program targets small contractors and DBEs and includes a guarantee pool that provides collateral for loans and bonds up to \$750,000 on construction projects throughout the City. A separate component targets contractors specifically for upcoming mega-projects. The Program includes:

- Consultative and technical assistance;
- Contractor assessments;
- Referrals to qualified partner resources, including surety brokers, lenders and Certified Public Accountants;
- Educational opportunities for contractors (bonding, QuickBooks® and other systems training, estimating, marketing, etc.);
- Bond guarantees, when needed as additional collateral;
- Third party funds administration (*e.g.*, payment management system);
- Contract monitoring; and
- Pre-claims resolution.

7. Consider a Business-to-Business Mentor-Protégé Program

MNAA currently implements a mentor-protégé initiative that provides DBEs with training by an outside consultant. This excellent supportive services program should be continued. In addition, the Authority should consider implementing a "business-to-business" Mentor-Protégé Program, in conformance with the Guidelines of Appendix D to Part 26. This approach, which would pair DBEs with larger firms to provide expertise and support from the perspective of successful businesses. Such a program was welcomed by DBEs and several large prime contractors as a way to increase DBEs' capacities by assisting them

¹⁹⁷ ¹⁹⁷ See www.imwis.com.

to perform larger, more complex work; move into non-traditional areas of work; and/or compete in the marketplace outside the DBE and SMWBE programs. Interview participants cited skill sets such as estimating jobs, meeting contract specifications, cash flow management, safety compliance, LEED (Leadership in Energy and Environmental Design) certification, scheduling, payrolls, billing, etc., and as areas in need of focus. Elements should include:

- Formal program guidelines.
- An Authority-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, for example, 1.25 percent for each dollar spent.
- 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 BDD of compliance with the plan and progress towards meeting its objectives.

A Program for federally-assisted contracts will require approval by FAA.

8. Enhance the Contracting Data Collection and Monitoring System

A critical element of this Study was data the collection of full and complete prime contract and associated subcontractor records. As is extremely common, MNAA did not have all the information needed for the subcontractors. However, it was able to provide all the data needed through additional staff efforts. Further, its relatively recent adoption of an electronic system made the task for gathering data easier for those years for which data were available. We note that staff time now dedicated to entering information from prime contractors could be directed towards additional outreach and support activities by permitting vendors to upload their information.

In addition to the current functionality, we recommend consideration of the following additional elements to support program compliance and review:

- **Contract goal setting:** The system should provide the ability to use the Study's estimates of unweighted DBE availability to set contract goals. This goal setting formula can provide a basis for a baseline estimate of the availability DBEs to perform the specific scopes of work of the contract, which should then be evaluated based on current information, such as the entry of new certified firms, the amount of work being currently performed, the location of the work, etc.
- **Compliance plan evaluations:** The system should provide the ability to review compliance plans and goal attainment. In addition to the ability to upload documents, the authority would benefit from a comparison of bidders' plans from designated fields, as well as access to prior projects and vendors' performance.
- **Bidders' list:** It appears that the Authority is not maintaining the bidder's list required by 49 C.F.R. ¶26.11. The current vendor list does not contain the information needed on the bids submitted by subcontractors and subconsultants, or the gross receipts of the firms. These data should be required and maintained as part of the contracting process.

The Authority was able to provide us with information on whether a goal was set on a specific contract. This permitted the analysis of D/M/WBE utilization on contracts with goals compared to those without goals. The results strongly suggest that goals are necessary to achieve utilization of D/M/WBEs in parity with their availability. However, these data had to be manually inputted by BDD staff for this reports.

To facilitate analysis of such race-neutral utilization on an ongoing basis, we suggest that three fields be added to the current system:

1. Whether there was a goal on the original solicitation.
2. The original amount of the goal(s).
3. The final level of goal attainment. This will make it easier to evaluate the effectiveness of the Airport's use of race- neutral measures to achieve participation.

Further, it was very difficult to track the effect of change orders on goal attainment and utilization plan compliance. The system should be configured to include these data.

B. Continue to Implement Narrowly Tailored DBE and M/WBE Program Elements

The Study's results support the determination that MNAA has a strong basis in evidence to implement its SMWBE Program for its locally-funded

contracts.¹⁹⁸ The record establishes that M/WBEs in the Airport's market area continue to experience disparities in their access to contracts, leading to the inference that discrimination is a significant cause of those disparities. Race- and gender-conscious remedies remain necessary to level the playing field, as suggested by the disparities between the availability of D/M/WBEs and their utilization on contracts without goals.

Minorities and women also experienced large and statistically significant disparities in their access to opportunities in the overall Nashville area economy. The analysis of economy-wide disparities barriers in the Authority's market areas supports the inference that race and gender remain barriers to the full and fair participation of minority- and women-owned firms, and that without intervention in the market, MNAA may be a passive participant in a discriminatory system.

Further, there is strong anecdotal evidence that race and gender continue to negatively impact factors necessary for business success. Minorities and women recounted their experiences with discriminatory barriers to their full and fair participation in the Authority's contracting activities, and non-D/M/WBE firm owners often observed the effects of past discrimination.

In sum, the Study provides quantitative and qualitative evidence of discriminatory practices and attitudes that impede opportunities for minorities and women on Airport projects. It establishes the Authority's compelling interest in remedial intervention through the use of race- and gender-conscious measures to reduce racial and gender barriers to participation in its opportunities. We therefore make the following suggestions for a narrowly tailored DBE program for FAA-funded projects and a narrowly tailored M/WBE program for locally-funded contracts.

1. Use the Study to Set the Overall Annual DBE Goal and the SMWBE Goals

49 C.F.R. Part 26 requires that MNAA adopt an annual overall goal for DBE participation in its federally-funded projects covering a three year period. This Study's availability estimates for federal-aid contracts in Chapter IV should be used as the Step 1 base figure for the relative availability of DBEs required by 49 C.F.R. § 26.45(c). Our custom census is a USDOT-approved 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 minorities and women form businesses can serve as the basis for a "step 2" adjustment to the baseline DBE estimate of availability pursuant to § 26.45(d). Such an

¹⁹⁸ As discussed in Chapter 1, a recipient of USDOT funds may rely on Congress' determination that discrimination still operates in the market for federally-assisted transportation contracts and therefore MNAA need not conduct a disparity analysis of its FAA-funded projects.

adjustment would reflect the level of DBE availability that would be expected “but for” or in the absence of discrimination. These economy-wide disparities are quantitative and “demonstrable evidence that is logically and directly related to the effect for which the adjustment is sought.”¹⁹⁹

Likewise, we recommend that the availability estimates for locally-funded contracts be the basis for the annual goals for SMWBE utilization.

2. Use the Study to Set DBE and SMWBE Contract Goals

As discussed in Chapter II of the Study, MNAA’s constitutional responsibility is to ensure that its implementation of both the DBE program and its SMWBE program for local contracts are narrowly tailored to the Authority’s geographic and procurement market areas. The highly detailed unweighted availability estimates in the Study— which can be loaded into the B2GNOW system to facilitate analysis— would serve as the starting point for contract goal setting to meet this mandate.²⁰⁰ The DBE or M/WBE availability estimates would be weighed by the estimated dollar value of the anticipated scopes of the contract. The results should then be further evaluated to consider other factors relevant to that project, such as the current commitments of certified firms, upcoming projects and the Authority’s progress towards meeting the overall, annual goals. We note that a “step 2 adjustment”—consideration of whether to adjust the initial availability estimate by factors such as past participation and economy-wide disparities—is not germane to setting contract goals.

We urge MNAA to bid some federally-funded contracts that it determines have significant opportunities for DBE 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 and the results of no-goals solicitations on locally-funded contracts. The development of some unremediated markets data will be probative of whether contract goals remain needed to level the playing field for minorities and women.

3. Revise SMWBE Program Eligibility Criteria

MNAA currently does not apply a personal net worth test to determine eligibility for the SMWBE program. In our judgment, limiting the program’s remedies to firms owned by economically disadvantaged persons would comport with the current case law. The limits imposed by the DBE program could be adopted for ease of administration, and we note they have received repeated judicial approval.

Next, the program should employ the market area established by the study to determine whether firms are presumptively eligible for certification. Firms

¹⁹⁹ 49 CFR § 26.45(d)(3).

²⁰⁰ 49 C.F.R. §26.51.

located outside Tennessee that can demonstrate efforts to do work in MNAA's market could be certified on a case-by-case basis.

C. Develop Performance Measures for Program Success

The Airport should develop quantitative performance measures for certified firms and overall success of the programs success to evaluate their effectiveness in reducing the systemic barriers identified by the Study. In addition to meeting the overall, annual goals, possible benchmarks might include:

- The number of bids or proposals that require evaluation of good faith efforts to meet the contract goal.
- The number and dollar amount of awards where good faith efforts fell short of the goal and therefore waivers were requested, and the results of those waiver requests. These data should be used to determine the accuracy of goal setting and areas for additional outreach.
- 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 or SMWBE substitutions during contract performance.
- Increased bidding as prime vendors by certified firms.
- Increased prime contracting by certified firms.
- Increased "capacity" of certified firms, as measured by bonding limits, size of jobs, profitability.
- Graduation "data," such as the rates at which various types of firms graduate and their experiences after exiting the program. It will be important to track the progress of graduated firms to evaluate whether they succeed without the Program, and if not, why not.

D. Mandate SMWBE Program Review and Sunset

To meet the requirements of strict constitutional scrutiny, MNAA should require that the evidentiary basis for the SMWBE program 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. A sunset date for the Program, when it will end unless reauthorized, is required to meet the constitutional requirement of narrow tailoring that race-conscious measures be used only when necessary. A new disparity or other applicable study should be commissioned in time to meet the sunset date.

Appendix A: Master M/W/DBE Directory

To supplement the race and sex information in Dun & Bradstreet/Hoovers we used to estimate M/W/DBE availability in MNAA's market area, we contacted 65 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 Airport. 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.

In addition to the Airport's list, we obtained lists from the following entities:

- Business Research Services
- City of Clarksville
- City of Memphis
- City of Nashville
- Diversity Business.com
- Diversity Information Resources
- Kentucky Department of Transportation
- Memphis Shelby County International Airport
- Metropolitan Nashville Airport Authority
- Tennessee Black Pages
- Tennessee Department of Transportation
- Tennessee Governor's Office of Diversity Business

The following entities had relevant lists of MWDBEs that were duplicates of the lists we obtained:

- Chattanooga Airport
- City of Chattanooga
- City of Shelbyville
- Japan America Society of Tennessee Inc.
- Mid-South Minority Business Council Memphis
- University of Tennessee

The following entities either did not have a list of MWDBEs or the list did not include race and gender information:

- Bartlett Area Chamber of Commerce
- Black Business Association of Memphis
- Chattanooga Area Chamber of Commerce

City of Columbia
City of Franklin
City of Jackson
City of Kingsport
Clarksville Chamber of Commerce
Greater Memphis Black Chamber of Commerce
Hendersonville Area Chamber of Commerce
Hispanic Chamber of Commerce of East Tennessee
Jackson Chamber of Commerce
Johnson City Chamber of Commerce
Memphis Area Minority Contractors
Nashville Area Chamber of Commerce
Nashville Minority Business Center
National Association of Minority Contractors
National Association of Women in Construction
Robertson County Chamber of Commerce
Rutherford County Chamber of Commerce (Murfreesboro)
Tennessee Business Roundtable
Tennessee Chinese Chamber of Commerce
Tennessee Department of Treasury Small and Minority Owned Business Assistance Program
Tennessee Multicultural Chamber of Commerce
U.S. Women's Chamber of Commerce
Williamson County-Franklin Chamber of Commerce

We were unable to obtain lists from the following entities:

Access America Transport
Black Business Directory
Blue Cross Blue Shield of TN
City of Dyersburg
City of Lebanon
City of Maryville
East Tennessee Chinese Association
Greater Memphis United Chinese Association
Jackson Madison County African American Chamber of Commerce
Nashville Area Hispanic Chamber of Commerce
Nashville Black Chamber of Commerce
National Association of Women Business Owners
National Association of Women in Construction-Knoxville
Small Business Administration

Tennessee Latin American Chamber of Commerce
Women's Business Enterprise National Council

The following entities declined to provide either their list or the race and gender information in their list:

City of Knoxville
National Association of Women Business Owners-Memphis
National Association of Women Business Owners-Nashville
Tennessee Minority Supplier Development Council, Inc.
Women's Business Enterprise National Council

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 Tennessee than it is in Alabama). We therefore developed new variables that would show the interaction between race and gender and Tennessee. The coefficient for the new variable showed the impact of being a member of that race or gender in Tennessee. 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 layperson'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.²⁰¹ 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 variable affects

²⁰¹ The exact interpretation depends upon the functional form of the model.

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 MNAA 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 B, 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 that estimation is; 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 and explore the probability that the observed relationship (*e.g.*, - 35%) is between 0 and minus that confidence interval.²⁰² The confidence interval will vary depending upon the level of confidence (statistical significance) we wish to have in our conclusion.

²⁰² 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 above or below the hypothesized value, then we would say “plus or minus the confidence level” and this would be a two-tailed test.

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.