

Memphis - Shelby County Airport Authority Disparity Study 2022



MEMPHIS-SHELBY COUNTY AIRPORT AUTHORITY DISPARITY STUDY

2022

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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 supplier diversity initiatives. 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; Ilene Grossman, B.S., Chief Operating Officer and Project Administrator; Glenn Sullivan, B.S., Director of Technology; Victoria Farrell, MBA, Assistant Principal Researcher; and Joanne Lubart, J.D., Special Counsel. CHA is certified as a Minority-Owned Business Enterprise and a Woman-Owned Business Enterprise by numerous agencies.

Hemline Creative Marketing, LLC (DBE), founded in 2003, is an award-winning, certified woman-owned strategy-focused communications firm. Hemline is co-owned by Kelley Morice and Cynthia Saatkamp. Together, they know the pulse of Memphis and have strong ties to the business community. Hemline excels in the areas of community outreach, stakeholder communications, and event planning and execution. Hemline assisted with anecdotal data collection and community outreach for this study.

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I. EXECUTIVE SUMMARY

A. Study Methodology and Data

Colette Holt & Associates (CHA) was retained by the Memphis-Shelby County Airport Authority (“Authority”, “Airport” or “MSCAA”) to perform a disparity study of its FAA funded contracts, non-FAA funded contracts, non-car rental concessions contracts and car rental concessions contracts in conformance with strict constitutional scrutiny. We determined MSCAA’s utilization of Minority-Owned and Woman-Owned Business Enterprises and Disadvantaged Business Enterprises (collectively “M/W/DBEs”) during fiscal years 2012 through 2019; the availability of these firms as a percentage of all firms in the MSCAA’s geographic and industry market areas; and any disparities between MSCAA’s utilization of M/W/DBEs and M/W/DBE availability. We further analyzed disparities in the wider Memphis metropolitan area economy, where affirmative action is rarely practiced, to evaluate whether barriers continue to impede opportunities for minorities and women when remedial intervention is not imposed. We also gathered anecdotal and qualitative data about the experiences of minority- and woman-owned firms in obtaining MSCAA’s contracts and the associated contracts and concession opportunities. Based on these findings, we evaluated the MSCAA’s programs for conformance with constitutional standards, national best practices, and DBE program regulations. Based on the results of these extensive analyses, we provide best practices for consideration for MSCAA’s business diversity programs.

The methodology for this study embodies the constitutional principles of *City of Richmond v. J.A. Croson, Co.*, Sixth Circuit Court of Appeals case law, and best practices for designing race- and gender-conscious and small business contracting programs. The CHA approach has been specifically upheld by the federal 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.

B. MSCAA’s Contracting Affirmative Action Programs

MSCAA administers three supplier diversity programs to promote full and fair contracting opportunities: the DBE program for federally assisted contracts funded by the U.S. Department of Transportation (“USDOT”); the ACDBE program for Airport concession opportunities; and the Business Diversity Development (“BDD”) program for its non-federally assisted contracts

The Business Diversity Development Office (“BDD Office”) is responsible for planning, directing, organizing and coordinating MSCAA’s affirmative action programs. The Authority uses an electronic software system for certification, compliance and monitoring of its programs. The Airport offers an array of vendor program outreach and training events which are listed in the online resource center portal. The BDD Office continues to expand its network of community partners and contacts that support its efforts to level the playing field for participants in the BDD Program. Office staff participate in an array of civil rights training opportunities.

1. MSCAA’s Disadvantaged Business Enterprise Program for USDOT Funded Contracts

As a direct recipient of USDOT funds through the Federal Aviation Administration (“FAA”), MSCAA is required to implement a DBE program in accordance with 49 C.F.R. Part 26 (“Part 26”). The Airport administers a DBE Program Plan, which was approved by the FAA in 2020. Updates are made periodically to comply with new Part 26 mandates and FAA directives.

MSCAA is a certifying member of the Tennessee Unified Certification Program (“TNUCP”). The TNUCP is a cooperative of federal-aid recipients within the state that conducts “one stop shopping” certification for the USDOT DBE Program and the Airport Concession Disadvantaged Business Program. Applications are reviewed by MSCAA’s DBE certification staff. Among other criteria, to qualify for DBE certification, an applicant firm must demonstrate that it is a for-profit small business concern and at least 51 percent owned and controlled by socially and economically disadvantaged individuals.¹

The Airport sets triennial DBE goals using the Part 26 two-step goal-setting process.² The Authority sets DBE contract goals only on those USDOT assisted contracts that have subcontracting possibilities. These contract-specific goals are based upon the scope of work, the location of the work, and the availability of DBE firms to perform the particular type of work. These may vary from the overall triennial goal and are designed to be narrowly tailored to the details of the project.³

-
1. Presumptively socially and economically disadvantaged individuals are defined as: Black Americans, Hispanic-Americans, Native-Americans, Asian-Pacific Americans, Subcontinent Asian-Americans, Women, and any additional groups found to be socially and economically disadvantaged by the Small Business Administration under Section 8(a) of the Small Business Act. Individuals who are not members of presumptively disadvantaged groups may seek certification based upon an individual showing, under the provisions of Appendix E of the USDOT DBE program regulation, 49 C.F.R. Part 26, Appendix A: *Individual Determinations of Social and Economic Disadvantage*.
 2. The overall goal must be based on demonstrable evidence of the availability of ready, willing, and able DBEs relative to all businesses ready, willing, and able to participate on USDOT contracts. The goal must reflect MSCAA’s determination of the level of DBE participation it would expect absent the effects of discrimination. 49 C.F.R. §26.45

The Senior Manager of the Business Diversity Development Office (“Office”) serves as MSCAA’s DBE Liaison Officer (“DBELO”) and is responsible for administering all aspects of the DBE program in coordination with other appropriate officials.⁴ The DBELO and staff perform various duties and responsibilities for the Program.

In conformance with Part 26, prompt payment obligations are set forth in FAA assisted contracts.⁵ All forms of USDOT assisted agreements are covered by prompt payment requirements.

In order to be responsive, a bidder/offeror must either meet the DBE contract goal or document its adequate good faith efforts (“GFEs”) to do so. If it cannot meet the contract goal, the bidder/offeror must submit a narrative and documentation demonstrating its GFEs. GFEs are efforts that bidders are reasonably expected to meet to produce a level of participation sufficient to meet the contract goal. Contractors must document sufficient GFEs before contract award and throughout the life of the contract. Prime contractors must not terminate a DBE subcontractor or an approved substitute DBE firm without the Airport’s written consent.

The DBE Program Administrator and the Compliance Coordinator ensure adequate contract monitoring and compliance and conduct commercially useful function⁶ reviews to confirm that the firm is independent and is performing, managing, and supervising the contract work.

In conformance with Part 26 requirements, MSCAA has created the Small Business Participation Plan (“SBPP”). The SBPP is a race-neutral program designed to facilitate competition by small business concerns.⁷ Applicants must meet various standards for certification, including business size and personal net worth limits. The Plan includes several remedies, including the establishment of small business set-asides on contract less than \$1M.

MSCAA employs a variety of race-neutral approaches to facilitate DBE and small business participation. BDD conducts outreach, informational and training activities; stakeholder meetings; open houses; luncheons, and financial/technical assistance for DBEs.

-
3. To ensure a narrowly-tailored, legally defensible program, a recipient is not required to set a goal on every FAA-assisted contract or to set each contract goal at the same percentage level of the overall goal. The goal for a specific contract may be higher or lower than that percentage of the overall goal. *See* §26.51 (e)(2).
 4. As required by Part 26, the DBELO reports directly to MSCAA’s President and Chief Executive Officer. 49 C.F.R § 26.25.
 5. These clauses are both a Part 26 requirement and a contractual requirement.
 6. Commercially useful function is defined in 49 C.F.R. § 25.55(c)(1) as a discrete set or group of tasks, the responsibility for performance of which is discharged by the DBE using its own forces or by actively supervising on-site the execution of the task by the entity for whose work the DBE is responsible.
 7. In conformance with 49 C.F.R. § 26.39(c), a USDOT recipient must actively implement its program elements to foster small business participation. This is a requirement of good faith implementation of the recipient’s DBE program.

2. MSCAA's Airport Concession Disadvantaged Business Enterprise Program

MSCAA is required to establish an Airport Concessions Disadvantaged Business Enterprise ("ACDBE") Program for its small hub primary Airport (KMEM), in conformance with 49 C.F.R. Part 23 ("Part 23"). It is required to develop an ACDBE Program Plan. Part 23 requires a recipient to establish an overall ACDBE goal for non-car rental concession opportunities and an overall ACDBE goal for car rental contracts.

To be certified as an ACDBE, an applicant firm must meet the Part 26 eligibility standards as well as specific Part 23 business size requirements.

3. MSCAA's Business Diversity Development Program

MSCAA's Business Diversity Development Program ("BDDP") is designed to encourage disadvantaged, minority or woman-owned businesses to participate in the Authority's non-federally funded projects. The genesis of the program was the 1994 *Memphis-Shelby County Intergovernmental Consortium Disparity Study*. The program has been regularly modified in response to other studies.

Since 2004, MSCAA has used the eligibility provisions of the USDOT DBE regulations to determine whether an applicant firm is eligible to participate in its BDDP program. Participants must meet the certification requirements of Part 26. MSCAA performs the certification process.

To the extent applicable, the BDDP utilizes the Airport's DBE program contract and bidding requirements, policies, documents, standards, and procedures. The Authority adopts race- and gender-conscious goals similar to the DBE program for appropriate contracts and establishes goals using the latest DBE goals submissions and other historical data.

4. MSCAA's Local Preference Program/Policy

In 2013, the Authority adopted a race- and gender-neutral Local Preference Policy to assist businesses located in Shelby County to compete for its non-federal contracts valued at \$25,000.00 or greater.⁸ The five percent price preference is applied when it is reasonable in light of the dollar value of the proposal received, relative to such expenditures. Vendors must meet all applicable specifications and requirements of bids. If the lowest responsive bidder is a regional or non-local business, then all bids received from qualified responsive local businesses are decreased by five percent. The local preference cost dif-

8. MSCAA cannot impose a local geographic preference on FAA-assisted contracts.

ferential cannot exceed \$100,000.00 and cannot be applied to emergency purchases or contracts or any other noncompetitive contracts.

5. Business Owner Interviews

To gather anecdotal evidence of the effectiveness of current MSCAA policies and procedures in leveling the playing field for M/W/DBEs on federal-aid, locally funded and concession contracts, we interviewed 118 firm owners or representatives.

a. Race- and Gender-Neutral Program Elements

Payment: There were few reports of slow or non-payment by the Airport, or slow or non-payment by prime firms to subcontractors.

Access to information about upcoming opportunities: Most attendees praised MSCAA for the ease of access to information about upcoming opportunities.

Contract size, specifications and procurement method: The large size of many MSCAA projects is a barrier to all small firms. “Unbundling” contracts was suggested by M/W/DBEs and non-M/W/DBEs as a way to increase opportunities for M/W/DBEs and other small firms to perform as prime contractors and as subcontractors on the Airport’s large projects.

Experience requirements: These were also reported to be a frequent impediment. Several M/W/DBEs complained that the Airport, in their view, favors certain firms and tilts the process towards incumbents.

Surety Bonds: Several participants mentioned difficulties in obtaining surety bonds as a major impediment to M/W/DBEs and small firms performing on Airport projects. A lack of bonding impacts both the M/W/DBEs receiving prime contracts and non-M/W/DBE bidders’ ability to use M/W/DBEs as subcontractors.

Insurance: Obtaining the levels of insurance coverage necessary to perform aviation contracts was another hurdle for M/W/DBEs and other small firms.

Access to capital: This was another reported common barrier.

More flexible procurement methods: Methods such as design-build or construction manager at risk were suggested as ways to increase M/W/DBE participation.

Assistance Programs for M/W/DBEs and Small Firms: Some general contractors and M/W/DBEs suggested the Authority provide more technical assistance and supportive services to M/W/DBEs. The complexity of Airport

jobs requires training and support. Many attendees felt more targeted assistance also would take some of the burden off of larger contractors, who often reported having to engage in training to utilize small contractors.

b. Race- and Gender-Conscious Program Elements

As described in detail in Chapter V, M/W/DBEs in general reported that being certified created opportunities that otherwise would not have presented themselves. The Authority's supplier diversity programs were seen as vital to the continuing viability of their companies.

Obtaining prime contracts: M/W/DBEs found prime contract awards difficult to obtain. While they can count their self-performance towards meeting contract goals, many felt excluded from the opportunity to serve in the lead role. Some bidders believe there is a preference for large, national "name" firms.

Setting and meeting contract goals: This elicited more comments than any other topic, especially from majority owned firms. Firms that bid Airport projects mostly reported that they have been able to meet the goals. However, there was a common perception that there are not enough Memphis-based certified firms to meet goals.

The M/W/DBE certification list: The list was reported to be cumbersome and often businesses list so many codes that it makes it difficult to search for a qualified firm.

Utilizing M/W/DBEs: Prime firms sometimes felt that using M/W/DBEs increased their risks. Increased costs for using M/W/DBEs were reported by some general contractors.

Making good faith efforts: Whatever the difficulties in meeting goals, few participants reported trying to seek a reduction of a goal based on a demonstration of their good faith efforts to do so. Many bidders stated that if they cannot meet the goal, they do not bid the work. Submitting evidence of their good faith efforts was seen as futile.

The entire process was reported by some smaller general contractors to be so burdensome that they often do not submit bids to MSCAA. However, another mid-size firm felt that this comes with the territory.

Monitoring of goal commitments: Most participants reported that the BDD Office closely monitors commitments to M/W/DBE participation during contract performance and provided help to M/W/DBEs when requested.

Mentor-Protégé relationships: There was interest and support from M/W/DBEs for the concept of an Airport-approved and administered Mentor-

Protégé initiative, in conformance with the requirements of 49 C.F.R. Appendix D. Several large Airport prime firms agreed. One representative of a large consulting firm cautioned that not all mentor-protégé relationships are successful.

Concessions: Overall, ACDBEs reported good experiences working at the Airport. Interviewees not already awarded concession opportunities sought technical assistance to become better positioned to obtain contracts.

The interviews strongly suggest that MSCAA implements the DBE Program and ACDBE Program well within the parameters of 49 C.F.R. Part 26 and Part 23. It also administers its BDD Program within national best practices and the constitutional constraints of strict scrutiny. Overall, the programs were reported to be helpful and properly implemented. While prime vendors found it challenging to meet the goals, especially given the complexity and schedules for Airport projects, most were able to include minority and woman businesses on their contracts. The ACDBE program was generally lauded for creating opportunities for small firms.

C. Utilization, Availability and Disparity Analyses

CHA analyzed contract data for 2012 through 2019 for MSCAA's FAA funded contracts, non-FAA funded contracts, non-car rental concessions contracts and car rental concession contracts. To conduct this analysis, we constructed all the fields necessary for our analysis where they were missing in the Airport's contract records (*e.g.*, industry type; zip codes; NAICS codes of prime contractors and subcontractors; non-DBE subcontractor information, including payments, race, gender; etc.). The resulting Final Contract Data Files (FCDFs) for analysis contained four subsets: FAA funded contracts; non-FAA funded contracts; non-car rental concessions contracts; and car rental concessions contracts.

- The *FAA funded contracts* subset contained 89 contracts, with a net paid amount of \$336,629,066.78; subcontractors received 191 contracts. Prime contractors received \$215,643,401.22 of the net paid amount; subcontractors received \$120,985,665.56 of the net paid amount.
- The *non-FAA funded contracts* subset contained 695 contracts, with a net paid amount of \$255,365,998.10; subcontractors received 268 contracts. Prime contractors received \$173,085,500.33 of the net paid amount; subcontractors received \$82,280,497.77 of the net paid amount.
- The *non-car rental concessions contracts* subset contained 127 contracts with a net paid amount of \$154,549,618.

- The *car rental concessions contracts* subset contained 19 contracts with a net paid amount of \$489,898,533.

The Final Contract Data File (FCDF) for each funding source was used to determine the geographic and product markets for the analyses. For each funding source analysis, we identified which counties housed firms that received MSCAA's dollars. Initially, we identified those counties receiving at least 75 percent of the dollars, the analysis was limited to those counties. In addition to capturing at least 75 percent of the Airport's spending, we also examined the data through the lens of geographic contiguity. This approach might result in the inclusion of some counties to the geographic market because of their proximity to a primary county even though their share of the Airport's spending is relatively low.

This constrained product market – the original FCDF limited to the appropriate counties – was also used to estimate the utilization of M/W/DBEs on MSCAA's contracts and form the Final Contract Utilization Data File. We then used this File, in combination with other databases to calculate M/W/DBE unweighted and weighted availability in MSCAA's marketplace by funding source.

For purposes of goal setting, the availability estimates are weighted by the MSCAA's actual spending patterns, as determined by the NAICS codes it utilized. Weighting availability results in a more accurate picture of which firms are available to participate in the agency's opportunities. For example, high availability in a NAICS code in which minimal dollars are spent would give the impression that there are more M/W/DBEs that can perform work on agency contracts than are actually ready, willing and able. Conversely, a low availability in a high dollar scope would understate the potential dollars that could be spent with M/W/DBEs.⁹

The following tables present key results of the data analysis for each funding source.

1. Utilization and Availability Analysis for FAA Funded Contracts

Table 1-1 presents data on the 50 NAICS codes contained in the Airport's Final Contract Data File of FAA funded contracts. The third column represents the share of all FAA funded contracts to firms performing work in a particular NAICS code. The fourth column presents the cumulative share of FAA spending from the NAICS code with the largest share to the NAICS code with the smallest share.

9. This is why the USDOT "Tips for Goal Setting" urges recipients to weight their headcount of firms by dollars spent. See *Tips for Goal-Setting in the Disadvantaged Business Enterprise Program*, <https://www.transportation.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise>.

**Table 1-1: Industry Percentage Distribution of MSCAA
FAA Funded Contracts by Dollars**

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
236220	Commercial and Institutional Building Construction	28.9%	28.9%
237310	Highway, Street, and Bridge Construction	22.1%	51.1%
541330	Engineering Services	12.0%	63.1%
238210	Electrical Contractors and Other Wiring Installation Contractors	11.3%	74.4%
561612	Security Guards and Patrol Services	3.8%	78.2%
238120	Structural Steel and Precast Concrete Contractors	2.6%	80.7%
238390	Other Building Finishing Contractors	1.8%	82.5%
238910	Site Preparation Contractors	1.6%	84.2%
541310	Architectural Services	1.5%	85.7%
541380	Testing Laboratories	1.5%	87.2%
237990	Other Heavy and Civil Engineering Construction	1.2%	88.4%
238220	Plumbing, Heating, and Air-Conditioning Contractors	1.2%	89.7%
484220	Specialized Freight (except Used Goods) Trucking, Local	1.1%	90.8%
238290	Other Building Equipment Contractors	1.1%	91.9%
541370	Surveying and Mapping (except Geophysical) Services	0.7%	92.6%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.7%	93.3%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	0.6%	94.0%
238990	All Other Specialty Trade Contractors	0.6%	94.6%
238110	Poured Concrete Foundation and Structure Contractors	0.6%	95.1%
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	0.5%	95.6%
238160	Roofing Contractors	0.5%	96.1%
238140	Masonry Contractors	0.4%	96.5%
238130	Framing Contractors	0.4%	96.9%
541360	Geophysical Surveying and Mapping Services	0.3%	97.2%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	0.3%	97.5%
541611	Administrative Management and General Management Consulting Services	0.3%	97.8%
541890	Other Services Related to Advertising	0.2%	98.0%
541511	Custom Computer Programming Services	0.2%	98.2%
561730	Landscaping Services	0.2%	98.4%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	0.2%	98.6%
541612	Human Resources Consulting Services	0.2%	98.8%
441110	New Car Dealers	0.1%	98.9%
541990	All Other Professional, Scientific, and Technical Services	0.1%	99.1%
236210	Industrial Building Construction	0.1%	99.2%
561990	All Other Support Services	0.1%	99.3%
541810	Advertising Agencies	0.1%	99.4%
423390	Other Construction Material Merchant Wholesalers	0.1%	99.5%
221320	Sewage Treatment Facilities	0.1%	99.5%
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	0.1%	99.6%
541430	Graphic Design Services	0.1%	99.7%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	0.1%	99.7%
541620	Environmental Consulting Services	0.1%	99.8%
541110	Offices of Lawyers	0.1%	99.9%
238320	Painting and Wall Covering Contractors	0.1%	99.9%
518210	Data Processing, Hosting, and Related Services	0.03%	99.9%
237110	Water and Sewer Line and Related Structures Construction	0.02%	99.96%
423620	Household Appliances, Electric Housewares, and Consumer Electronics Merchant Wholesalers	0.02%	99.98%
532412	Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing	0.01%	99.99%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
722310	Food Service Contractors	0.01%	99.998%
541340	Drafting Services	0.002%	100.00%
TOTAL			100.0%

Source: CHA analysis of MSCAA's Data.

To determine the relevant geographic market area, we applied the standard of identifying the firm locations that account for at least 75 percent of contract and subcontract dollar payments in the contract data file.¹⁰ Location was determined by ZIP code and aggregated into counties as the geographic unit. Five counties capture approximately 77.8 percent of the FCDF dollars and their share of FCDF dollars. Table 1-2 lists the share of FCDF dollars these counties received.

Table 1-2: Distribution of Contracts in the MSCAA's Geographical Market
FAA Funded Contracts

County	Pct Contract Dollars
Shelby County, TN	75.9%
DeSoto County, MS	1.5%
Marshall County, MS	0.3%
Crittenden County, AR	0.1%
Tipton County, TN	0.03%

Source: CHA analysis of MSCAA's Data.

Having limited the FCDF to those firms within the MSCAA's geographic market, the next step was to determine the dollar value of MSCAA's utilization of M/W/DBEs¹¹ as measured by payments to prime firms and subcontractors and disaggregated by race and gender.

Tables 1-3a and 1-3b present the distribution of contract dollars. Chapter III provides detailed breakdowns of these results.

10. National Academies of Sciences, Engineering, and Medicine 2010, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/14346>, p. 49. ("National Disparity Study Guidelines").

11. We use the term "M/W/DBEs" to include firms owned by racial or ethnic minorities and White females that are not certified as M/W/DBEs by an agency recognized by MSCAA. This casts the "broad net" required by the courts, as discussed in Appendix E.

Table 1-3a: Distribution of MSCAA FAA Funded Contract Dollars by Race and Gender
(share of total dollars)

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
236210	Industrial Building Construction	0.0%	0.0%	0.0%	0.0%	0.0%
236220	Commercial and Institutional Building Construction	7.5%	0.0%	0.0%	0.0%	3.3%
237110	Water and Sewer Line and Related Structures Construction	0.0%	63.8%	0.0%	0.0%	0.0%
237310	Highway, Street, and Bridge Construction	1.6%	7.6%	0.0%	0.0%	7.8%
237990	Other Heavy and Civil Engineering Construction	34.6%	0.0%	65.4%	0.0%	0.0%
238110	Poured Concrete Foundation and Structure Contractors	98.6%	0.0%	0.0%	0.0%	0.8%
238120	Structural Steel and Precast Concrete Contractors	100.0%	0.0%	0.0%	0.0%	0.0%
238130	Framing Contractors	0.0%	0.0%	0.0%	0.0%	0.0%
238140	Masonry Contractors	8.6%	0.0%	0.0%	0.0%	0.0%
238160	Roofing Contractors	100.0%	0.0%	0.0%	0.0%	0.0%
238210	Electrical Contractors and Other Wiring Installation Contractors	0.2%	11.2%	0.0%	0.0%	48.4%
238220	Plumbing, Heating, and Air-Conditioning Contractors	9.8%	0.0%	0.0%	0.0%	0.0%
238290	Other Building Equipment Contractors	0.0%	0.0%	0.0%	0.0%	86.8%
238320	Painting and Wall Covering Contractors	99.6%	0.0%	0.0%	0.0%	0.0%
238390	Other Building Finishing Contractors	0.0%	0.0%	0.0%	0.0%	97.3%
238910	Site Preparation Contractors	4.3%	0.0%	0.0%	0.0%	1.7%
238990	All Other Specialty Trade Contractors	53.7%	0.0%	0.0%	0.0%	13.2%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
441110	New Car Dealers	0.0%	0.0%	0.0%	0.0%	0.0%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
484220	Specialized Freight (except Used Goods) Trucking, Local	0.0%	0.0%	0.0%	0.0%	100.0%
541310	Architectural Services	34.1%	0.0%	0.0%	0.0%	1.9%
541330	Engineering Services	15.7%	0.0%	8.2%	0.0%	2.2%
541340	Drafting Services	0.0%	0.0%	0.0%	0.0%	100.0%
541370	Surveying and Mapping (except Geophysical) Services	1.0%	0.0%	99.0%	0.0%	0.0%
541380	Testing Laboratories	0.0%	0.0%	0.0%	0.0%	0.0%
541430	Graphic Design Services	0.0%	0.0%	0.0%	0.0%	100.0%
541620	Environmental Consulting Services	0.0%	0.0%	0.0%	0.0%	3.9%
541810	Advertising Agencies	43.5%	0.0%	0.0%	0.0%	27.0%
561612	Security Guards and Patrol Services	100.0%	0.0%	0.0%	0.0%	0.0%
561730	Landscaping Services	0.0%	0.0%	0.0%	0.0%	1.0%
561990	All Other Support Services	0.0%	0.0%	0.0%	0.0%	100.0%
722310	Food Service Contractors	100.0%	0.0%	0.0%	0.0%	0.0%
Total		10.7%	3.3%	2.6%	0.0%	12.5%

Source: CHA analysis of MSCAA's Data.

**Table 1-3b: Distribution of MSCAA FAA Funded Contract Dollars by Race and Gender (cont.)
(share of dollars)**

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
236210	Industrial Building Construction	0.0%	100.0%	100.0%
236220	Commercial and Institutional Building Construction	10.8%	89.2%	100.0%
237110	Water and Sewer Line and Related Structures Construction	63.8%	36.2%	100.0%
237310	Highway, Street, and Bridge Construction	17.0%	83.0%	100.0%
237990	Other Heavy and Civil Engineering Construction	100.0%	0.0%	100.0%
238110	Poured Concrete Foundation and Structure Contractors	99.4%	0.6%	100.0%

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NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
238120	Structural Steel and Precast Concrete Contractors	100.0%	0.0%	100.0%
238130	Framing Contractors	0.0%	100.0%	100.0%
238140	Masonry Contractors	8.6%	91.4%	100.0%
238160	Roofing Contractors	100.0%	0.0%	100.0%
238210	Electrical Contractors and Other Wiring Installation Contractors	59.8%	40.2%	100.0%
238220	Plumbing, Heating, and Air-Conditioning Contractors	9.8%	90.2%	100.0%
238290	Other Building Equipment Contractors	86.8%	13.2%	100.0%
238320	Painting and Wall Covering Contractors	99.6%	0.4%	100.0%
238390	Other Building Finishing Contractors	97.3%	2.7%	100.0%
238910	Site Preparation Contractors	5.9%	94.1%	100.0%
238990	All Other Specialty Trade Contractors	66.9%	33.1%	100.0%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.0%	100.0%	100.0%
441110	New Car Dealers	0.0%	100.0%	100.0%
484220	Specialized Freight (except Used Goods) Trucking, Local	100.0%	0.0%	100.0%
541310	Architectural Services	36.0%	64.0%	100.0%
541330	Engineering Services	26.1%	73.9%	100.0%
541340	Drafting Services	100.0%	0.0%	100.0%
541370	Surveying and Mapping (except Geophysical) Services	100.0%	0.0%	100.0%
541380	Testing Laboratories	0.0%	100.0%	100.0%
541430	Graphic Design Services	100.0%	0.0%	100.0%
541620	Environmental Consulting Services	3.9%	96.1%	100.0%
541810	Advertising Agencies	70.5%	29.5%	100.0%
561612	Security Guards and Patrol Services	100.0%	0.0%	100.0%
561730	Landscaping Services	1.0%	99.0%	100.0%

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
561990	All Other Support Services	100.0%	0.0%	100.0%
722310	Food Service Contractors	100.0%	0.0%	100.0%
Total		29.2%	70.8%	100.0%

Source: CHA analysis of MSCAA's Data.

Using the “custom census” approach with modifications to estimating availability and the further assignment of race and gender using the FCDF, the Master M/W/DBE Directory and other sources, we determined the aggregated availability of M/W/DBEs, weighted by the Authority’s spending in its geographic and industry markets to be 25.4 percent for the Authority’s contracts. Table 1-4 presents the weighted availability data for all product sectors combined for the racial and gender categories.

**Table 1-4: Aggregated Weighted Availability for MSCAA
FAA Funded Contracts**

Black	Hispanic	Asian	Native American	White Women	M/W/DBE	Non-M/W/DBE	Total
14.1%	1.2%	1.7%	0.5%	7.8%	25.4%	74.6%	100.0%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

2. Utilization, Availability and Disparity Analysis for non-FAA Funded Contracts

Table 1-5 presents data on the 148 NAICS codes contained in the Airport’s Final Contract Data File of non-FAA funded contracts.

**Table 1-5: Industry Percentage Distribution of MSCAA non-FAA Funded
Contracts by Dollars**

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
236220	Commercial and Institutional Building Construction	15.6%	15.6%
238210	Electrical Contractors and Other Wiring Installation Contractors	10.3%	25.9%
561720	Janitorial Services	8.3%	34.2%
237310	Highway, Street, and Bridge Construction	5.6%	39.8%
238910	Site Preparation Contractors	4.6%	44.4%

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NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
238220	Plumbing, Heating, and Air-Conditioning Contractors	4.1%	48.4%
488119	Other Airport Operations	3.6%	52.0%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	3.6%	55.6%
238390	Other Building Finishing Contractors	3.4%	59.0%
541330	Engineering Services	2.4%	61.4%
541511	Custom Computer Programming Services	1.9%	63.3%
238290	Other Building Equipment Contractors	1.8%	65.1%
488490	Other Support Activities for Road Transportation	1.8%	66.9%
541310	Architectural Services	1.6%	68.5%
541611	Administrative Management and General Management Consulting Services	1.5%	70.0%
238990	All Other Specialty Trade Contractors	1.5%	71.5%
485310	Taxi Service	1.5%	72.9%
541820	Public Relations Agencies	1.4%	74.3%
238160	Roofing Contractors	1.4%	75.6%
541613	Marketing Consulting Services	1.2%	76.9%
441110	New Car Dealers	1.1%	78.0%
423830	Industrial Machinery and Equipment Merchant Wholesalers	1.1%	79.1%
238120	Structural Steel and Precast Concrete Contractors	1.1%	80.3%
561730	Landscaping Services	1.1%	81.3%
424690	Other Chemical and Allied Products Merchant Wholesalers	1.0%	82.3%
541110	Offices of Lawyers	0.8%	83.1%
524113	Direct Life Insurance Carriers	0.8%	83.9%
238150	Glass and Glazing Contractors	0.7%	84.6%
238310	Drywall and Insulation Contractors	0.7%	85.3%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	0.7%	86.0%
561621	Security Systems Services (except Locksmiths)	0.6%	86.6%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
485999	All Other Transit and Ground Passenger Transportation	0.6%	87.2%
238140	Masonry Contractors	0.6%	87.7%
922130	Legal Counsel and Prosecution	0.5%	88.3%
236210	Industrial Building Construction	0.5%	88.8%
541620	Environmental Consulting Services	0.5%	89.3%
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	0.5%	89.8%
562119	Other Waste Collection	0.5%	90.3%
541219	Other Accounting Services	0.5%	90.8%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.5%	91.3%
444190	Other Building Material Dealers	0.4%	91.7%
238330	Flooring Contractors	0.4%	92.0%
561612	Security Guards and Patrol Services	0.4%	92.4%
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	0.4%	92.7%
238320	Painting and Wall Covering Contractors	0.3%	93.1%
562111	Solid Waste Collection	0.3%	93.4%
541690	Other Scientific and Technical Consulting Services	0.3%	93.7%
561320	Temporary Help Services	0.3%	94.0%
237110	Water and Sewer Line and Related Structures Construction	0.3%	94.3%
621498	All Other Outpatient Care Centers	0.3%	94.6%
562910	Remediation Services	0.2%	94.8%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	0.2%	95.0%
812930	Parking Lots and Garages	0.2%	95.3%
484220	Specialized Freight (except Used Goods) Trucking, Local	0.2%	95.5%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	0.2%	95.7%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
424130	Industrial and Personal Service Paper Merchant Wholesalers	0.2%	95.9%
523930	Investment Advice	0.2%	96.1%
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	0.2%	96.3%
541410	Interior Design Services	0.2%	96.5%
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers	0.2%	96.6%
541512	Computer Systems Design Services	0.2%	96.8%
423310	Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers	0.2%	97.0%
541211	Offices of Certified Public Accountants	0.2%	97.1%
315210	Cut and Sew Apparel Contractors	0.1%	97.3%
561710	Exterminating and Pest Control Services	0.1%	97.4%
541380	Testing Laboratories	0.1%	97.5%
531210	Offices of Real Estate Agents and Brokers	0.1%	97.6%
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	0.1%	97.7%
541370	Surveying and Mapping (except Geophysical) Services	0.1%	97.8%
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	0.1%	97.9%
237990	Other Heavy and Civil Engineering Construction	0.1%	98.0%
812320	Drycleaning and Laundry Services (except Coin-Operated)	0.1%	98.1%
525110	Pension Funds	0.1%	98.2%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	0.1%	98.3%
238350	Finish Carpentry Contractors	0.1%	98.4%
541890	Other Services Related to Advertising	0.1%	98.5%
621910	Ambulance Services	0.1%	98.5%
423390	Other Construction Material Merchant Wholesalers	0.1%	98.6%
423840	Industrial Supplies Merchant Wholesalers	0.1%	98.7%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
921130	Public Finance Activities	0.1%	98.7%
561920	Convention and Trade Show Organizers	0.1%	98.8%
237130	Power and Communication Line and Related Structures Construction	0.1%	98.9%
424340	Footwear Merchant Wholesalers	0.1%	98.9%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.1%	99.0%
523920	Portfolio Management	0.05%	99.0%
115112	Soil Preparation, Planting, and Cultivating	0.04%	99.1%
722320	Caterers	0.04%	99.1%
711130	Musical Groups and Artists	0.04%	99.2%
423420	Office Equipment Merchant Wholesalers	0.04%	99.2%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	0.04%	99.2%
811111	General Automotive Repair	0.03%	99.3%
423210	Furniture Merchant Wholesalers	0.03%	99.3%
531320	Offices of Real Estate Appraisers	0.03%	99.3%
424430	Dairy Product (except Dried or Canned) Merchant Wholesalers	0.03%	99.4%
484210	Used Household and Office Goods Moving	0.03%	99.4%
323111	Commercial Printing (except Screen and Books)	0.03%	99.4%
332322	Sheet Metal Work Manufacturing	0.03%	99.5%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	0.03%	99.5%
339950	Sign Manufacturing	0.03%	99.5%
541420	Industrial Design Services	0.02%	99.6%
238340	Tile and Terrazzo Contractors	0.02%	99.6%
541910	Marketing Research and Public Opinion Polling	0.02%	99.6%
561990	All Other Support Services	0.02%	99.6%
561622	Locksmiths	0.02%	99.6%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	0.02%	99.7%
621999	All Other Miscellaneous Ambulatory Health Care Services	0.02%	99.7%
532420	Office Machinery and Equipment Rental and Leasing	0.02%	99.7%
425120	Wholesale Trade Agents and Brokers	0.02%	99.7%
423710	Hardware Merchant Wholesalers	0.02%	99.8%
485113	Bus and Other Motor Vehicle Transit Systems	0.02%	99.8%
524292	Third Party Administration of Insurance and Pension Funds	0.02%	99.8%
541810	Advertising Agencies	0.02%	99.8%
611420	Computer Training	0.01%	99.8%
532120	Truck, Utility Trailer, and RV (Recreational Vehicle) Rental and Leasing	0.01%	99.8%
424910	Farm Supplies Merchant Wholesalers	0.01%	99.8%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	0.01%	99.9%
423220	Home Furnishing Merchant Wholesalers	0.01%	99.9%
332321	Metal Window and Door Manufacturing	0.01%	99.9%
423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers	0.01%	99.9%
423130	Tire and Tube Merchant Wholesalers	0.01%	99.9%
561611	Investigation Services	0.01%	99.9%
611513	Apprenticeship Training	0.01%	99.9%
441310	Automotive Parts and Accessories Stores	0.01%	99.9%
611430	Professional and Management Development Training	0.01%	99.9%
423740	Refrigeration Equipment and Supplies Merchant Wholesalers	0.01%	99.9%
423330	Roofing, Siding, and Insulation Material Merchant Wholesalers	0.01%	99.9%
621512	Diagnostic Imaging Centers	0.01%	99.9%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
423490	Other Professional Equipment and Supplies Merchant Wholesalers	0.01%	99.9%
423440	Other Commercial Equipment Merchant Wholesalers	0.01%	99.95%
512110	Motion Picture and Video Production	0.01%	99.96%
423140	Motor Vehicle Parts (Used) Merchant Wholesalers	0.004%	99.96%
562991	Septic Tank and Related Services	0.004%	99.97%
424490	Other Grocery and Related Products Merchant Wholesalers	0.004%	99.97%
562920	Materials Recovery Facilities	0.004%	99.97%
321113	Sawmills	0.003%	99.98%
238190	Other Foundation, Structure, and Building Exterior Contractors	0.003%	99.98%
424210	Drugs and Druggists' Sundries Merchant Wholesalers	0.003%	99.98%
811211	Consumer Electronics Repair and Maintenance	0.003%	99.98%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	0.003%	99.99%
423460	Ophthalmic Goods Merchant Wholesalers	0.002%	99.99%
517312	Wireless Telecommunications Carriers (except Satellite)	0.002%	99.99%
611519	Other Technical and Trade Schools	0.002%	99.99%
424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers	0.001%	99.99%
524128	Other Direct Insurance (except Life, Health, and Medical) Carriers	0.001%	99.996%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	0.001%	99.997%
922190	Other Justice, Public Order, and Safety Activities	0.001%	99.998%
515112	Radio Stations	0.001%	99.999%
541340	Drafting Services	0.001%	100.0%
Total			100.0%

Source: CHA analysis of MSCAA's Data.

Six counties captured 68.1 percent of the FCDF dollars and their share of FCDF dollars. Table 1-6 lists the share of FCDF dollars these counties received.

**Table 1-6: Distribution of Contracts in the MSCAA's Geographical Market
Non-FAA Funded Contracts**

County	Pct Contract Dollars
Shelby County, TN	66.5%
Crittenden County, AR	0.8%
DeSoto County, MS	0.4%
Tunica County, MS	0.2%
Marshall County, MS	0.2%
Tipton County, TN	0.01%

Source: CHA analysis of MSCAA's Data.

Having limited the FCDF to those firms within the MSCAA's geographic market, the next step was to determine the dollar value of the MSCAA's utilization of M/W/DBEs as measured by payments to prime firms and subcontractors and disaggregated by race and gender.

Tables 1-7a and 1-7b present the distribution of contract dollars by all industry sectors. Chapter III provides detailed breakdowns of these results.

Table 1-7a: Distribution of MSCAA non-FAA Funded Contract Dollars by Race and Gender

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
115112	Soil Preparation, Planting, and Cultivating	100.0%	0.0%	0.0%	0.0%	0.0%
236210	Industrial Building Construction	31.9%	0.0%	0.0%	0.0%	0.0%
236220	Commercial and Institutional Building Construction	5.0%	0.6%	8.0%	0.0%	19.1%
237110	Water and Sewer Line and Related Structures Construction	0.0%	89.5%	0.0%	0.0%	0.0%
237130	Power and Communication Line and Related Structures Construction	100.0%	0.0%	0.0%	0.0%	0.0%
237310	Highway, Street, and Bridge Construction	14.7%	0.0%	14.7%	0.0%	0.5%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
238120	Structural Steel and Precast Concrete Contractors	0.0%	0.0%	0.0%	0.0%	0.0%
238140	Masonry Contractors	89.4%	0.0%	0.0%	0.0%	9.7%
238150	Glass and Glazing Contractors	0.0%	0.0%	0.0%	0.0%	3.2%
238160	Roofing Contractors	5.2%	0.0%	0.0%	0.0%	94.7%
238210	Electrical Contractors and Other Wiring Installation Contractors	23.9%	1.0%	0.0%	1.1%	29.0%
238220	Plumbing, Heating, and Air-Conditioning Contractors	12.4%	0.0%	0.0%	0.0%	58.2%
238290	Other Building Equipment Contractors	0.0%	0.0%	0.0%	0.0%	28.9%
238310	Drywall and Insulation Contractors	13.6%	0.0%	0.0%	0.0%	18.5%
238320	Painting and Wall Covering Contractors	9.4%	0.0%	0.0%	0.0%	0.0%
238330	Flooring Contractors	58.7%	0.0%	0.0%	0.0%	25.0%
238340	Tile and Terrazzo Contractors	0.0%	0.0%	0.0%	0.0%	73.3%
238350	Finish Carpentry Contractors	23.5%	0.0%	0.0%	0.0%	0.0%
238390	Other Building Finishing Contractors	0.0%	0.0%	0.0%	0.0%	50.0%
238910	Site Preparation Contractors	21.3%	0.0%	46.5%	0.0%	22.7%
238990	All Other Specialty Trade Contractors	4.7%	0.0%	0.0%	0.0%	7.6%
315210	Cut and Sew Apparel Contractors	0.0%	0.0%	0.0%	0.0%	100.0%
321113	Sawmills	0.0%	0.0%	0.0%	0.0%	0.0%
323111	Commercial Printing (except Screen and Books)	0.0%	0.0%	0.0%	0.0%	0.0%
332321	Metal Window and Door Manufacturing	0.0%	0.0%	0.0%	0.0%	0.0%
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	9.7%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
423130	Tire and Tube Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423140	Motor Vehicle Parts (Used) Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423210	Furniture Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	100.0%
423220	Home Furnishing Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	100.0%
423330	Roofing, Siding, and Insulation Material Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423390	Other Construction Material Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	20.5%	0.0%	0.0%	0.0%	0.0%
423440	Other Commercial Equipment Merchant Wholesalers	22.1%	0.0%	0.0%	0.0%	77.9%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	0.0%	60.6%	0.0%	0.0%	0.0%
423710	Hardware Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	85.3%
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423740	Refrigeration Equipment and Supplies Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	15.7%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	0.5%	0.0%	0.0%	0.0%	0.0%
423830	Industrial Machinery and Equipment Merchant Wholesalers	0.5%	0.0%	0.0%	0.0%	0.6%
423840	Industrial Supplies Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	6.6%
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	93.8%	0.0%	0.0%	0.0%	0.0%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	100.0%
424130	Industrial and Personal Service Paper Merchant Wholesalers	100.0%	0.0%	0.0%	0.0%	0.0%
424210	Drugs and Druggists' Sundries Merchant Wholesalers	100.0%	0.0%	0.0%	0.0%	0.0%
424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers	100.0%	0.0%	0.0%	0.0%	0.0%
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
424340	Footwear Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
424430	Dairy Product (except Dried or Canned) Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
424690	Other Chemical and Allied Products Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	3.1%	0.0%	0.0%	0.0%	0.0%
424910	Farm Supplies Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
441110	New Car Dealers	0.0%	0.0%	0.0%	0.0%	0.0%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	0.0%	0.0%	0.0%	0.0%	0.0%
441310	Automotive Parts and Accessories Stores	0.0%	0.0%	0.0%	0.0%	0.0%
444190	Other Building Material Dealers	0.0%	0.0%	0.0%	0.0%	0.0%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	0.0%	0.0%	0.0%	0.0%	0.0%
484210	Used Household and Office Goods Moving	0.0%	0.0%	0.0%	0.0%	68.6%
484220	Specialized Freight (except Used Goods) Trucking, Local	15.1%	0.0%	0.0%	0.0%	23.4%
485113	Bus and Other Motor Vehicle Transit Systems	0.0%	0.0%	0.0%	0.0%	0.0%
485310	Taxi Service	0.0%	0.0%	0.0%	0.0%	0.0%
488119	Other Airport Operations	0.0%	0.0%	0.0%	0.0%	0.0%
488490	Other Support Activities for Road Transportation	0.0%	0.0%	0.0%	0.0%	0.0%
512110	Motion Picture and Video Production	0.0%	0.0%	0.0%	0.0%	0.0%
515112	Radio Stations	0.0%	0.0%	0.0%	0.0%	0.0%
517312	Wireless Telecommunications Carriers (except Satellite)	0.0%	0.0%	0.0%	0.0%	0.0%
524113	Direct Life Insurance Carriers	100.0%	0.0%	0.0%	0.0%	0.0%
524128	Other Direct Insurance (except Life, Health, and Medical) Carriers	0.0%	0.0%	0.0%	0.0%	0.0%
524292	Third Party Administration of Insurance and Pension Funds	0.0%	0.0%	0.0%	0.0%	0.0%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
531210	Offices of Real Estate Agents and Brokers	0.0%	0.0%	0.0%	0.0%	0.0%
531320	Offices of Real Estate Appraisers	0.0%	0.0%	0.0%	0.0%	0.0%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	0.0%	0.0%	0.0%	0.0%	0.0%
541110	Offices of Lawyers	0.0%	0.0%	0.0%	0.0%	7.9%
541211	Offices of Certified Public Accountants	0.0%	0.0%	0.0%	0.0%	0.0%
541219	Other Accounting Services	100.0%	0.0%	0.0%	0.0%	0.0%
541310	Architectural Services	0.2%	0.0%	0.0%	0.0%	0.0%
541330	Engineering Services	5.2%	0.0%	11.9%	0.0%	5.9%
541340	Drafting Services	0.0%	0.0%	0.0%	0.0%	100.0%
541370	Surveying and Mapping (except Geophysical) Services	0.0%	0.0%	100.0%	0.0%	0.0%
541380	Testing Laboratories	0.0%	0.0%	63.7%	0.0%	0.0%
541410	Interior Design Services	0.0%	0.0%	0.0%	0.0%	100.0%
541420	Industrial Design Services	100.0%	0.0%	0.0%	0.0%	0.0%
541511	Custom Computer Programming Services	4.2%	2.8%	30.9%	0.0%	4.3%
541613	Marketing Consulting Services	0.0%	0.0%	0.0%	0.0%	100.0%
541620	Environmental Consulting Services	0.0%	0.0%	0.0%	0.0%	5.8%
541810	Advertising Agencies	100.0%	0.0%	0.0%	0.0%	0.0%
541820	Public Relations Agencies	0.0%	0.0%	0.0%	0.0%	89.3%
541890	Other Services Related to Advertising	26.9%	0.0%	0.0%	0.0%	73.1%
541910	Marketing Research and Public Opinion Polling	0.0%	0.0%	0.0%	0.0%	0.0%
561320	Temporary Help Services	9.8%	7.0%	0.0%	0.0%	81.8%
561612	Security Guards and Patrol Services	100.0%	0.0%	0.0%	0.0%	0.0%
561622	Locksmiths	100.0%	0.0%	0.0%	0.0%	0.0%

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NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
561710	Exterminating and Pest Control Services	32.3%	0.0%	0.0%	0.0%	0.0%
561720	Janitorial Services	23.8%	0.0%	0.0%	0.0%	0.0%
561730	Landscaping Services	86.2%	0.0%	0.0%	0.0%	0.5%
561920	Convention and Trade Show Organizers	0.0%	0.0%	0.0%	0.0%	0.0%
561990	All Other Support Services	0.0%	0.0%	0.0%	0.0%	4.6%
562111	Solid Waste Collection	0.0%	0.0%	0.0%	0.0%	0.0%
562910	Remediation Services	0.0%	0.0%	0.0%	0.0%	67.5%
562991	Septic Tank and Related Services	0.0%	0.0%	0.0%	0.0%	0.0%
611420	Computer Training	0.0%	0.0%	0.0%	0.0%	0.0%
611519	Other Technical and Trade Schools	0.0%	0.0%	100.0%	0.0%	0.0%
621498	All Other Outpatient Care Centers	0.0%	0.0%	0.0%	0.0%	0.0%
621999	All Other Miscellaneous Ambulatory Health Care Services	0.0%	0.0%	0.0%	0.0%	100.0%
711130	Musical Groups and Artists	0.0%	0.0%	0.0%	0.0%	0.0%
722320	Caterers	16.2%	0.0%	0.0%	0.0%	4.9%
811111	General Automotive Repair	0.0%	0.0%	0.0%	0.0%	55.0%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	0.0%	0.0%	0.0%	0.0%	0.0%
812320	Drycleaning and Laundry Services (except Coin-Operated)	0.0%	0.0%	0.0%	0.0%	0.0%
922130	Legal Counsel and Prosecution	24.0%	0.0%	0.0%	0.0%	0.0%
922190	Other Justice, Public Order, and Safety Activities	0.0%	0.0%	0.0%	0.0%	0.0%
Total		14.5%	0.7%	5.6%	0.1%	19.6%

Source: CHA analysis of MSCAA's Data.

**Table 1-7b: Distribution of MSCAA non-FAA Funded Contract Dollars
by Race and Gender (cont.) (share of dollars)**

NAICS	NAICS Code Description	M/W/ DBE	Non- M/W/DBE	Total
115112	Soil Preparation, Planting, and Cultivating	100.0%	0.0%	100.0%
236210	Industrial Building Construction	31.9%	68.1%	100.0%
236220	Commercial and Institutional Building Construction	32.7%	67.3%	100.0%
237110	Water and Sewer Line and Related Structures Construction	89.5%	10.5%	100.0%
237130	Power and Communication Line and Related Structures Construction	100.0%	0.0%	100.0%
237310	Highway, Street, and Bridge Construction	29.9%	70.1%	100.0%
238120	Structural Steel and Precast Concrete Contractors	0.0%	100.0%	100.0%
238140	Masonry Contractors	99.1%	0.9%	100.0%
238150	Glass and Glazing Contractors	3.2%	96.8%	100.0%
238160	Roofing Contractors	100.0%	0.0%	100.0%
238210	Electrical Contractors and Other Wiring Installation Contractors	55.0%	45.0%	100.0%
238220	Plumbing, Heating, and Air-Conditioning Contractors	70.6%	29.4%	100.0%
238290	Other Building Equipment Contractors	28.9%	71.1%	100.0%
238310	Drywall and Insulation Contractors	32.1%	67.9%	100.0%
238320	Painting and Wall Covering Contractors	9.4%	90.6%	100.0%
238330	Flooring Contractors	83.7%	16.3%	100.0%
238340	Tile and Terrazzo Contractors	73.3%	26.7%	100.0%
238350	Finish Carpentry Contractors	23.5%	76.5%	100.0%
238390	Other Building Finishing Contractors	50.0%	50.0%	100.0%
238910	Site Preparation Contractors	90.5%	9.5%	100.0%
238990	All Other Specialty Trade Contractors	12.3%	87.7%	100.0%
315210	Cut and Sew Apparel Contractors	100.0%	0.0%	100.0%
321113	Sawmills	0.0%	100.0%	100.0%
323111	Commercial Printing (except Screen and Books)	0.0%	100.0%	100.0%
332321	Metal Window and Door Manufacturing	0.0%	100.0%	100.0%
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	0.0%	100.0%	100.0%

NAICS	NAICS Code Description	M/W/ DBE	Non- M/W/DBE	Total
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	9.7%	90.3%	100.0%
423130	Tire and Tube Merchant Wholesalers	0.0%	100.0%	100.0%
423140	Motor Vehicle Parts (Used) Merchant Wholesalers	0.0%	100.0%	100.0%
423210	Furniture Merchant Wholesalers	100.0%	0.0%	100.0%
423220	Home Furnishing Merchant Wholesalers	100.0%	0.0%	100.0%
423330	Roofing, Siding, and Insulation Material Merchant Wholesalers	0.0%	100.0%	100.0%
423390	Other Construction Material Merchant Wholesalers	0.0%	100.0%	100.0%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	20.5%	79.5%	100.0%
423440	Other Commercial Equipment Merchant Wholesalers	100.0%	0.0%	100.0%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.0%	100.0%	100.0%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.0%	100.0%	100.0%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	60.6%	39.4%	100.0%
423710	Hardware Merchant Wholesalers	0.0%	100.0%	100.0%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	85.3%	14.7%	100.0%
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	0.0%	100.0%	100.0%
423740	Refrigeration Equipment and Supplies Merchant Wholesalers	15.7%	84.3%	100.0%
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	0.0%	100.0%	100.0%
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	0.5%	99.5%	100.0%
423830	Industrial Machinery and Equipment Merchant Wholesalers	1.1%	98.9%	100.0%
423840	Industrial Supplies Merchant Wholesalers	6.6%	93.4%	100.0%
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	93.8%	6.2%	100.0%

NAICS	NAICS Code Description	M/W/ DBE	Non- M/W/DBE	Total
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	0.0%	100.0%	100.0%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	100.0%	0.0%	100.0%
424130	Industrial and Personal Service Paper Merchant Wholesalers	100.0%	0.0%	100.0%
424210	Drugs and Druggists' Sundries Merchant Wholesalers	100.0%	0.0%	100.0%
424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers	100.0%	0.0%	100.0%
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers	0.0%	100.0%	100.0%
424340	Footwear Merchant Wholesalers	0.0%	100.0%	100.0%
424430	Dairy Product (except Dried or Canned) Merchant Wholesalers	0.0%	100.0%	100.0%
424690	Other Chemical and Allied Products Merchant Wholesalers	0.0%	100.0%	100.0%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	3.1%	96.9%	100.0%
424910	Farm Supplies Merchant Wholesalers	0.0%	100.0%	100.0%
441110	New Car Dealers	0.0%	100.0%	100.0%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	0.0%	100.0%	100.0%
441310	Automotive Parts and Accessories Stores	0.0%	100.0%	100.0%
444190	Other Building Material Dealers	0.0%	100.0%	100.0%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	0.0%	100.0%	100.0%
484210	Used Household and Office Goods Moving	68.6%	31.4%	100.0%
484220	Specialized Freight (except Used Goods) Trucking, Local	38.6%	61.4%	100.0%
485113	Bus and Other Motor Vehicle Transit Systems	0.0%	100.0%	100.0%
485310	Taxi Service	0.0%	100.0%	100.0%
488119	Other Airport Operations	0.0%	100.0%	100.0%
488490	Other Support Activities for Road Transportation	0.0%	100.0%	100.0%
512110	Motion Picture and Video Production	0.0%	100.0%	100.0%

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
515112	Radio Stations	0.0%	100.0%	100.0%
517312	Wireless Telecommunications Carriers (except Satellite)	0.0%	100.0%	100.0%
524113	Direct Life Insurance Carriers	100.0%	0.0%	100.0%
524128	Other Direct Insurance (except Life, Health, and Medical) Carriers	0.0%	100.0%	100.0%
524292	Third Party Administration of Insurance and Pension Funds	0.0%	100.0%	100.0%
531210	Offices of Real Estate Agents and Brokers	0.0%	100.0%	100.0%
531320	Offices of Real Estate Appraisers	0.0%	100.0%	100.0%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	0.0%	100.0%	100.0%
541110	Offices of Lawyers	7.9%	92.1%	100.0%
541211	Offices of Certified Public Accountants	0.0%	100.0%	100.0%
541219	Other Accounting Services	100.0%	0.0%	100.0%
541310	Architectural Services	0.2%	99.8%	100.0%
541330	Engineering Services	22.9%	77.1%	100.0%
541340	Drafting Services	100.0%	0.0%	100.0%
541370	Surveying and Mapping (except Geophysical) Services	100.0%	0.0%	100.0%
541380	Testing Laboratories	63.7%	36.3%	100.0%
541410	Interior Design Services	100.0%	0.0%	100.0%
541420	Industrial Design Services	100.0%	0.0%	100.0%
541511	Custom Computer Programming Services	42.2%	57.8%	100.0%
541613	Marketing Consulting Services	100.0%	0.0%	100.0%
541620	Environmental Consulting Services	5.8%	94.2%	100.0%
541810	Advertising Agencies	100.0%	0.0%	100.0%
541820	Public Relations Agencies	89.3%	10.7%	100.0%
541890	Other Services Related to Advertising	100.0%	0.0%	100.0%
541910	Marketing Research and Public Opinion Polling	0.0%	100.0%	100.0%
561320	Temporary Help Services	98.6%	1.4%	100.0%
561612	Security Guards and Patrol Services	100.0%	0.0%	100.0%

NAICS	NAICS Code Description	M/W/ DBE	Non- M/W/DBE	Total
561622	Locksmiths	100.0%	0.0%	100.0%
561710	Exterminating and Pest Control Services	32.3%	67.7%	100.0%
561720	Janitorial Services	23.8%	76.2%	100.0%
561730	Landscaping Services	86.7%	13.3%	100.0%
561920	Convention and Trade Show Organizers	0.0%	100.0%	100.0%
561990	All Other Support Services	4.6%	95.4%	100.0%
562111	Solid Waste Collection	0.0%	100.0%	100.0%
562910	Remediation Services	67.5%	32.5%	100.0%
562991	Septic Tank and Related Services	0.0%	100.0%	100.0%
611420	Computer Training	0.0%	100.0%	100.0%
611519	Other Technical and Trade Schools	100.0%	0.0%	100.0%
621498	All Other Outpatient Care Centers	0.0%	100.0%	100.0%
621999	All Other Miscellaneous Ambulatory Health Care Services	100.0%	0.0%	100.0%
711130	Musical Groups and Artists	0.0%	100.0%	100.0%
722320	Caterers	21.1%	78.9%	100.0%
811111	General Automotive Repair	55.0%	45.0%	100.0%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	0.0%	100.0%	100.0%
812320	Drycleaning and Laundry Services (except Coin-Operated)	0.0%	100.0%	100.0%
922130	Legal Counsel and Prosecution	24.0%	76.0%	100.0%
922190	Other Justice, Public Order, and Safety Activities	0.0%	100.0%	100.0%
Total		40.6%	59.4%	100.0%

Source: CHA analysis of MSCAA's Data.

Using the same approach as for FAA funded contracts, we determined the aggregated availability of M/W/DBEs, weighted by the Authority's spending in its geographic and industry markets, to be 22.9 percent for non-FAA funded contracts. Table 1-8 presents the weighted availability data for all product sectors combined for the racial and gender categories.

**Table 1-8: Aggregated Weighted Availability for the MSCAA's
non-FAA Funded Contracts**

Black	Hispanic	Asian	Native American	White Women	M/W/DBE	Non-M/W/DBE	Total
13.4%	0.9%	1.0%	0.4%	7.2%	22.9%	77.1%	100.0%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

To meet the strict scrutiny test that requires that all groups must have suffered discrimination in the MSCAA's markets to be eligible for credit towards meeting M/W/DBE contract goals, we next calculated disparity ratios comparing the MSCAA's utilization of M/W/DBEs as prime contractors and subcontractors to the availability of these firms in its market areas. Table 1-9 presents these results for non-FAA funded contracts. The disparity ratios for Hispanics and Native Americans were substantively significant. The disparity ratios White Women, M/W/DBE, and non-M/W/DBE were found to be statistically significant at the 0.001 level.

**Table 1-9: Disparity Ratios by Demographic Group
non-FAA Funded Contracts**

	Black	Hispanic	Asian	Native American	White Women	M/W/DBE	Non-M/W/DBE
Disparity Ratio	108.1%	76.9% [‡]	575.2%	36.2% [‡]	273.1%***	177.0%***	76.9%***

Source: CHA analysis of MSCAA's data; Hoovers; CHA Master Directory.

*** Indicates statistical significance at the 0.001 level

‡ Indicates substantive significance

Because of the relatively high utilization of Black-owned, Asian-owned and White woman-owned firms, we conducted further analysis of the utilization of these groups and found that dollars were concentrated in a few NAICS codes for a few contractors that accounted for a relatively large portion of the MSCAA's spend during the study period. A reader therefore should not conclude that Black-owned, Asian-owned and White woman-owned firms no longer need the remedial intervention of contract goals. To the contrary, these results are relevant and probative to whether the Airport should continue to set narrowly tailored contract goals.

3. Utilization and Availability Analysis for non-Car Rental Concessions Contracts

Table 1-10 presents data on the 20 NAICS codes contained in the Airport's Final Contract Data File of non-car rental concession contracts. Table 1-10 presents these results.

Table 1-10: Industry Percentage Distribution of Contracts by Gross Receipts
MSCAA non-Car Rental Concessions Contracts

NAICS	NAICS Code Description	Pct Total Gross Receipts	Cumulative Pct Total Gross Receipts
722310	Food Service Contractors	52.3%	52.3%
453220	Gift, Novelty, and Souvenir Stores	23.5%	75.8%
812930	Parking Lots and Garages	9.0%	84.8%
424920	Book, Periodical, and Newspaper Merchant Wholesalers	8.0%	92.9%
524210	Insurance Agencies and Brokerages	4.1%	96.9%
485310	Taxi Service	0.5%	97.5%
454390	Other Direct Selling Establishments	0.4%	97.9%
523130	Commodity Contracts Dealing	0.4%	98.3%
446130	Optical Goods Stores	0.4%	98.7%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	0.3%	99.0%
522110	Commercial Banking	0.3%	99.3%
721110	Hotels (except Casino Hotels) and Motels	0.2%	99.5%
522130	Credit Unions	0.2%	99.7%
561720	Janitorial Services	0.1%	99.9%
812990	All Other Personal Services	0.1%	99.9%
515210	Cable and Other Subscription Programming	0.04%	99.97%
561499	All Other Business Support Services	0.01%	99.99%
812112	Beauty Salons	0.01%	99.99%
485113	Bus and Other Motor Vehicle Transit Systems	0.004%	99.998%
485320	Limousine Service	0.002%	100.0%
TOTAL			100.0%

Source: CHA analysis of MSCAA's Data.

Two counties captured just over 94 percent of the FCDF dollars and therefore comprised the geographic market for the analysis of MSCAA's non-car rental concession contracts. Table 1-11 lists the share of FCDF dollars these counties received.

Table 1-11: Distribution of Contracts in MSCAA's Geographical Market for non-Car Rental Concession Contracts

County	Pct Total Contract Dollars
Shelby County, TN	94.1%
DeSoto County, MS	0.003%

Source: CHA analysis of MSCAA's Data.

Tables 1-12a and 1-12b present the distribution of these contract dollars by all industry sectors. Chapter III provides detailed breakdowns of these results.

Table 1-12a: Distribution of MSCAA non-Car Rental Concessions Gross Receipts by Race and Gender

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
424920	Book, Periodical, and Newspaper Merchant Wholesalers	25.0%	0.0%	0.0%	0.0%	0.0%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	25.0%	0.0%	0.0%	0.0%	0.0%
446130	Optical Goods Stores	25.0%	0.0%	0.0%	0.0%	0.0%
453220	Gift, Novelty, and Souvenir Stores	25.0%	0.0%	0.0%	0.0%	0.0%
485113	Bus and Other Motor Vehicle Transit Systems	0.0%	0.0%	100.0%	0.0%	0.0%
485310	Taxi Service	13.1%	0.0%	50.2%	0.0%	0.0%
485320	Limousine Service	0.0%	0.0%	0.0%	0.0%	0.0%
522110	Commercial Banking	0.0%	0.0%	0.0%	0.0%	0.0%
522130	Credit Unions	0.0%	0.0%	0.0%	0.0%	0.0%
524210	Insurance Agencies and Brokerages	0.0%	0.0%	0.0%	0.0%	100.0%
561720	Janitorial Services	100.0%	0.0%	0.0%	0.0%	0.0%
722310	Food Service Contractors	19.3%	0.0%	0.0%	0.0%	66.5%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
812112	Beauty Salons	100.0%	0.0%	0.0%	0.0%	0.0%
812930	Parking Lots and Garages	0.0%	65.9%	0.0%	0.0%	0.0%
812990	All Other Personal Services	100.0%	0.0%	0.0%	0.0%	0.0%
Total		18.6%	6.3%	0.3%	0.0%	38.1%

Source: CHA analysis of MSCAA's Data.

Table 1-12b: Distribution of MSCAA non-Car Rental Concessions Gross Receipts by Race and Gender (cont.) (share of dollars)

NAICS	NAICS Code Description	ACDBE	Non-ACDBE	Total
424920	Book, Periodical, and Newspaper Merchant Wholesalers	25.0%	75.0%	100.0%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	25.0%	75.0%	100.0%
446130	Optical Goods Stores	25.0%	75.0%	100.0%
453220	Gift, Novelty, and Souvenir Stores	25.0%	75.0%	100.0%
485113	Bus and Other Motor Vehicle Transit Systems	100.0%	0.0%	100.0%
485310	Taxi Service	63.2%	36.8%	100.0%
485320	Limousine Service	0.0%	100.0%	100.0%
522110	Commercial Banking	0.0%	100.0%	100.0%
522130	Credit Unions	0.0%	100.0%	100.0%
524210	Insurance Agencies and Brokerages	100.0%	0.0%	100.0%
561720	Janitorial Services	100.0%	0.0%	100.0%
722310	Food Service Contractors	85.9%	14.1%	100.0%
812112	Beauty Salons	100.0%	0.0%	100.0%
812930	Parking Lots and Garages	65.9%	34.1%	100.0%
812990	All Other Personal Services	100.0%	0.0%	100.0%
Total		63.4%	36.6%	100.0%

Source: CHA analysis of MSCAA's Data.

We used the same approach for estimating availability for non-car rental concessions as for other types of contracts. We determined the aggregated availability of ACDBEs, weighted by the Authority's spending in its geographic and

industry markets, to be 28.9 percent for MSCAA contracts. Table 1-13 presents the weighted availability data for all product sectors combined for racial and gender categories.

Table 1-13: Aggregated Weighted Availability for the MSCAA's non-Car Rental Concessions Contracts

Black	Hispanic	Asian	Native American	White Women	ACDBE	Non-ACDBE	Total
22.4%	0.6%	0.2%	0.0%	5.7%	28.9%	71.1%	100.0%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

4. Utilization and Availability Analysis for Car Rental Contracts

Table 1-14 presents data on the 7 NAICS codes contained in the Airport's Final Contract Data File of car rental contracts.

Table 1-14: Industry Percentage Distribution of MSCAA Car Rental Gross Receipts

NAICS	NAICS Code Description	Pct Total Gross Receipts	Cumulative Pct Total Gross Receipts
532111	Passenger Car Rental	99.2%	99.2%
524210	Insurance Agencies and Brokerages	0.8%	99.96%
561720	Janitorial Services	0.02%	99.98%
561622	Locksmiths	0.01%	99.99%
811192	Car Washes	0.01%	99.999%
488410	Motor Vehicle Towing	0.001%	99.9998%
541890	Other Services Related to Advertising	0.0002%	100.0000%
TOTAL			100.0%

Source: CHA analysis of MSCAA's Data.

All of the gross receipts were received by firms located in Shelby County. Therefore, we used Shelby County as the geographic market.

The next step was to determine the dollar value of the MSCAA's utilization of ACDBEs as measured by payments to concessionaires. Again, we had to obtain missing data from prime vendors.

Tables 1-15a and 1-15b present the distribution of gross receipts. Chapter III provides detailed breakdowns of these results.

**Table 1-15a: Distribution of MSCAA Car Rental Gross Receipts
by Race and Gender**

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
488410	Motor Vehicle Towing	100.00%	0.0%	0.0%	0.0%	0.0%
524210	Insurance Agencies and Brokerages	0.00%	0.0%	0.0%	0.0%	100.0%
532111	Passenger Car Rental	0.00%	0.0%	0.0%	0.0%	0.0%
541890	Other Services Related to Advertising	0.00%	0.0%	0.0%	0.0%	100.0%
561622	Locksmiths	0.00%	0.0%	0.0%	0.0%	100.0%
561720	Janitorial Services	100.00%	0.0%	0.0%	0.0%	0.0%
811192	Car Washes	100.00%	0.0%	0.0%	0.0%	0.0%
Total		0.03%	0.0%	0.0%	0.0%	0.8%

Source: CHA analysis of MSCAA's Data.

**Table 1-15b: Distribution of MSCAA Car Rental Gross Receipts
by Race and Gender (cont.) (share of dollars)**

NAICS	NAICS Code Description	ACDBE	Non-ACDBE	Total
488410	Motor Vehicle Towing	100.0%	0.0%	100.0%
524210	Insurance Agencies and Brokerages	100.0%	0.0%	100.0%
532111	Passenger Car Rental	0.0%	100.0%	100.0%
541890	Other Services Related to Advertising	100.0%	0.0%	100.0%
561622	Locksmiths	100.0%	0.0%	100.0%
561720	Janitorial Services	100.0%	0.0%	100.0%
811192	Car Washes	100.0%	0.0%	100.0%
Total		0.8%	99.2%	100.0%

Source: CHA analysis of MSCAA's Data.

We determined the aggregated availability of ACDBEs, weighted by the Authority's spending in its geographic and industry markets, to be 2.8 percent for the Authority's contracts. Table 1-16 presents the weighted availability data for each racial and gender category.

Table 1-16: Aggregated Weighted Availability for MSCAA’s Car Rental Contracts

Black	Hispanic	Asian	Native American	White Women	ACDBE	Non-ACDBE	Total
1.4%	0.0%	0.0%	0.0%	1.4%	2.8%	97.2%	100.0%

Source: CHA analysis of MSCAA’s Data; Hoovers; CHA Master Directory.

D. Analysis of Economy-Wide Race and Gender Disparities in the MSCAA’s Market

We explored the Census Bureau data and literature relevant to how discrimination in the MSCAA’s industry market and throughout the wider Memphis metropolitan area economy affects the ability of minorities and women to engage in the MSCAA’s prime contract and subcontract opportunities fairly and fully.

We analyzed the following data and literature:

- Data from the Census Bureau’s *Survey of Business Owners* from 2012. This set indicates very large disparities between M/W/DBE firms and non-M/W/DBE 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”) from 2014 through 2018. This set indicates that Blacks, Hispanics 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.
- Surveys and 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.

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 market-place discrimination without some type of affirmative intervention. Taken together with anecdotal data, this is the type of proof that addresses whether, in the absence of M/W/DBE contract goals, the MSCAA will be a passive participant in the discriminatory systems found throughout its industry market.

E. Anecdotal Evidence

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/W/DBEs. To explore this type of anecdotal evidence of possible discrimination against minorities and women in MSCAA's geographic and industry markets and the effectiveness of its current race-conscious and race-neutral measures, we conducted public business owner and stakeholder interviews, totaling 118 participants in person and by telephone. We also received written comments. The following are brief summaries of the views expressed over the many sessions by numerous participants.

- Many minority and female owners reported that they still suffer from biased perceptions and stereotypes about their competency, capabilities and professionalism. While sometimes subtle, these biases color all aspects of their attempts to obtain contracts and to be treated equally in performing contract work.
- Several White women believed that once prime contractors become familiar with their work, and when women assert themselves, sexist assumptions are overcome.
- That some minority or female owners have been "fronts" or pass-through firms hurts legitimate M/W/DBEs. Some general contractors also try to "game" the program by using M/W/DBEs as pass throughs.
- Several participants reported that prime vendors resent having to make good faith efforts to include them in government contracts.
- The ability to access business and professional networks was hampered by being a minority or woman entrepreneur.

We also conducted an electronic survey of firms in MSCAA's market area about their experiences in obtaining work, marketplace conditions and the agency's contracting equity programs. The results were similar to those of the interviews. Among minority- and woman-owned firms, almost 43 percent reported they still experience barriers to equal contracting opportunities; a quarter said their competency was questioned because of their race or gender; and almost 20 percent indicated they had less access to business networks and information.

F. Conclusion

The quantitative and qualitative data in this Study provide a thorough examination of the evidence regarding the experiences of M/W/DBEs in the Authority's geographic and industry markets. As required by strict constitutional scrutiny, we ana-

lyzed evidence of MSCAA’s utilization of M/W/DBEs as a percentage of all firms as measured by dollars spent, as well as M/W/DBEs’ experiences in obtaining contracts in the public and private sectors. We gathered statistical and anecdotal data to provide the Airport with the evidence necessary to set narrowly tailored DBE goals as required by the DBE program regulations.¹² These data further are relevant and probative of whether there is a strong basis in evidence for the Authority’s continued use of race- and gender-conscious goals for its program for locally funded contracts, and if so, how to narrowly tailor its local program.

The Authority has implemented an aggressive and successful local program for many years. Utilization of M/W/DBEs has exceeded availability for most groups. This is the outcome of setting goals, conducting outreach, and enforcing requirements. The results have been exemplary.

However, evidence beyond the Authority’s achievements strongly suggests these results reflect the success of the Program in countering the discrimination that still continues in the contracting markets. Outside of Airport and other local government contracts, M/W/DBEs face large disparities in opportunities for public sector and private sector work in the Memphis and Tennessee area markets. Our interviews with business owners and stakeholder representatives, as well as the results of our survey, likewise support the conclusion that the current effects of past discrimination and ongoing bias would be barriers to Airport work in the absence of effective remedies. We therefore suggest that the Authority continue its current efforts, and enhance future measures through increased use of race- and gender-neutral measures and setting goals based on the study’s results.

G. Appendices

1. Appendix D: Best Practices for Minority, Woman and Disadvantaged Business Enterprise Programs

a. Enhancement of Race- and Gender-Neutral Initiatives

The courts and the DBE and ACDBE Program regulations require that a recipient use race-neutral approaches to the “maximum feasible” extent to meet the overall goals. This is a critical element of narrowly tailoring the Programs, so that the burden on non-M/W/DBEs is no more than necessary to achieve MSCAA’s remedial purposes. Increased participation by M/W/DBEs through race-neutral measures will also reduce the need to set DBE contract goals, another requirement of the regulations. The following are national best practices for race-gender-neutral approaches.

12. 49 C.F.R. §26.45.

Ensure Multiple Avenues for M/W/DBEs to Network with Agency Staffs: It is important that an agency provide sufficient outreach events and opportunities for M/W/DBEs to meet agency contracting staff, as well as large prime vendors to whom M/W/DBEs might subcontract. Extensive outreach is a vehicle to increase access to information and networks otherwise closed to minority and woman owners. Smaller sessions with a focus on specific departments, beyond procurement and engineering, are helpful. An annual meeting to discuss forecasted projects can also be helpful.

Create Channels for M/W/DBEs to Market Their Firms to Other Businesses: Prime contractors and certified firms can sometimes be stymied about how to make meaningful connections between these groups. The list of certified firms is often long and inaccurate. One way to increase communication is to develop a site where M/W/DBEs who are specifically interested in agency work can provide information about their companies. This will assist everyone in obtaining critical information to improve the process of conducting good faith efforts to meet goals.

Ensure Accurate Assignment of Industry Codes in the M/W/DBE Certification Process: In some contracting equity programs, firms are certified in so many codes that it is difficult to discern what they are actually capable of performing. Similarly, firms may be certified in multiple codes that often have little relationship to each other. Further, contact information can often be outdated. It is a best practice to regularly review the list for accuracy. In addition, firms should be encouraged to apply for certification only in scopes they can perform; certification should not function as an aspirational status. These requirements should be clearly explained to applicants at the outset of the process.

Administer a Small Business Participation Program: MSCAA could consider if it is permitted under state law, as a best practice, setting aside appropriate contracts for bidding only by firms certified as small businesses by the Uniform Certification Agency of the Mid-South Minority Business Council Continuum. 49 C.F.R. § 26.39 requires a recipient of USDOT funds to include elements to encourage participation by small business concerns. This race-neutral measure can be expanded beyond construction contracts to other industries and non-FAA funded contracts, including professional services. This should increase opportunities for M/W/DBEs and other small firms to perform as prime vendors and reduce the use of contract goals.

Partner with Other Government Agencies and Not-For-Profit Organizations to Provide Technical Assistance and Supportive Services to M/W/DBEs: M/W/DBEs and prime contractors we have interviewed in conducting dozens of disparity studies across the country report that more supportive services would enhance M/W/DBEs' capacities as both prime contractors and sub-

contractors and the ability of prime contractors to meet goals. Areas commonly mentioned include better accounting practices, correct and timely submission of certified payrolls, adequate cash flow maintenance, safety compliance, quality control, and general business skills.

An agency might consider partnering with other local governments or a consortium of not-for-profit organizations to provide some of these types of services, to save money and to increase the pool of firms that would participate.¹³

Implement a Guaranteed Surety Bonding Program for Small Firms: Access to bonding and working capital are repeatedly cited by M/W/DBEs across the nation as significant barriers to the development and success of their businesses. An agency should consider implementing a program that addresses these critical components necessary to increase these firms' abilities to obtain contracts. One model is the City and County of San Francisco's Surety Bond and Financing Program.¹⁴ This Program makes bonding, financing and technical assistance available to eligible, certified contractors. The Program targets small contractors and DBEs and includes a loan guarantee pool that provides collateral for loans and bonds up to \$750,000 on construction projects throughout the City. A separate component specifically targets contractors for upcoming mega-projects.

Increase Contract "Unbundling": Unbundling projects, providing longer lead times and simplifying requirements would assist smaller businesses to take on some Airport work. Smaller contracts are an important race-neutral component to a defensible program. Government projects are often very large and complex. Not surprisingly, contract size is a disincentive to small firms to seek contracts, especially for transportation agencies. In conjunction with reduced insurance and bonding requirements where possible, unbundled contracts would permit smaller firms to move from quoting solely as subcontractors to bidding as prime contractors, as well as enhance their subcontracting opportunities.

Ensure Specification, Experience and Surety Bond Requirements are No Greater than Necessary: An agency should review qualification requirements to ensure that M/W/DBEs, smaller and newer firms are not unfairly disadvantaged and that there is adequate competition for Airport work.

Adopt an Electronic Bid System: Implementing an electronic system to submit bids and proposals supports the participation of more firms, especially small businesses. There are many vendors that provide systems for bidding.

13. See the Illinois Tollway's program at <https://ihccbusiness.net/ihcc-tollway>.

14. See <https://imwis.com/services/contractor-bonding-development-programs>.

A web-based system has at least three positive consequences for M/W/DBEs and small firms. First, it is so time consuming to submit paper bids that smaller firms that cannot spare staff to drive to the agency's headquarters to submit the paperwork are discouraged from seeking work as prime contractors. Electronic submission removes these burdens. Second, eliminating or reducing paper bidding decreases costs; current technology can help to level the playing field between large firms with staff to manage paper and smaller firms that cannot afford full-time marketing departments. Third, the longer lead times necessary to manage a paper process shortens the time for subcontractors to provide bids or quotes and reduces the possibility that a prime bidder will take a chance on a new firm it may not have sufficient time to vet. This may lead to a concentration of work into a smaller subset of firms.

Provide Sufficient Training to Prime Bidders on Program Compliance: It is important that prime vendors understand that M/W/DBE programs' goals do not function as rigid requirements, and that the submission of adequate good faith efforts documentation should be accepted. An agency should provide targeted training on the requirements for all aspects of compliance, including the standards for submitting and approving submissions that do not meet the contract goal and reporting utilization of certified firms, so that bidders understand that the programs are in fact flexible.

Ensure Bidder Non-Discrimination and Fairly Priced Subcontractor Quotations: M/W/DBEs across the country sometimes voice concerns that prime contractors may not be soliciting their subcontractor quotes in good faith to meet contract goals or fail to solicit them at all on non-goals projects. Many prime contractors report that using certified firms increases their costs and risks.

To investigate these claims, an agency can require bidders to maintain all subcontractor quotes received on specified projects. Compliance could be treated as an element of maintaining prequalification or of being deemed a responsible bidder. At the agency's discretion, the prices and scopes could then be compared to evaluate whether bidders are in fact soliciting and contracting with subcontractors on a non-discriminatory basis and if M/W/DBEs cost more than White male-owned firms.

Enhance Contracting and Procurement Data Collection: A fundamental component of program success is measurement and analysis. Compliance systems have been used nationally for decades by hundreds of local, state, and federal agencies. A complete and comprehensive electronic data collection system is therefore a cornerstone of program compliance and monitoring. Further, the ability to quickly locate and disseminate information is key to program responsiveness. An electronic outreach system allows an

agency to send crafted messages to any customized list of vendors/suppliers for communicating program updates, changes in policies and procedures, upcoming events, upcoming training sessions, bid notifications, etc. Additionally, a system should assist with setting narrowly tailored, defensible and transparent contract goals. Finally, a good system should provide the comprehensive data extraction needed to conduct a disparity study.

The functional requirements for an electronic system will vary based on the type of agency and the elements of the program. Some systems will offer add-on functions to support additional program activities like pre-qualification registration, workforce hiring and utilization monitoring, bid posting, and contractor insurance tracking. Foundational components include outreach and event management, contract goal setting, M/W/D/SBE utilization plan management, contract compliance administration, disparity study data collection and certification applications processing and management.

Mandate Sufficient Document Retention Time for Prime Contractors:

MSCAA should consider requiring contractors should maintain full records for at least five years to facilitate any future disparity studies.

b. Consideration of Narrowly Tailored DBE and ACDBE Goals

Use Disparity Study Results to Set the Triennial DBE and ACDBE Goals: 49 C.F.R. Part 26 and Part 23 require a recipient to engage in a two-step process to set a triennial goal for DBE participation in its federally funded projects and an overall ACDBE goal for concession contracts. To determine the Step 1 base figure for the relative availability of DBEs required by § 26.45(c) and the relative availability of ACDBEs required by §23.51(c), a recipient should use its Disparity Study's DBE and ACDBE weighted availability findings.

To perform the Step 2 analysis required by § 26.45(d) and §26/51(d) to adjust the Step 1 figure to reflect the level of DBE availability and ACDBE availability that would be expected in the absence of discrimination, an agency can consider using the economy-wide statistical disparities in Chapter IV in the rates at which DBEs form businesses.”¹⁵

Use the Study to Set DBE and ACDBE Contract Goals: A disparity study's highly detailed unweighted availability estimates (optimally, at the 6-digit NAICS code level) can serve as a starting point for narrowly tailored contract goal setting. They reflect the percentage of available DBEs and the percentage of available ACDBEs as a percentage of the total pool of available firms. An agency should weigh the estimated scopes, and then adjust the result based on geography and current market conditions (for example,

15. 49 CFR § 26.45(d)(3); see also §23.51.

the volume of work currently underway in the market, the entrance of newly certified firms, specialized nature of the project, etc.).

Written procedures based on the study results detailing the implementation of contract goal setting should be developed and disseminated so that all contracting actors understand the methodology. A comprehensive electronic data collection and monitoring system should contain a contract goal setting module developed to utilize the study's unweighted availability data as a starting basis.

Adopt a Pilot Mentor-Protégé Program: An agency should consider adopting a pilot Mentor-Protégé Program for M/W/DBEs. We suggest starting with construction firms, as that is the industry in which these programs have been mostly implemented and for which there are successful examples. Guidance is provided at 49 C.F.R. § 26.35 and the Guidelines of Appendix D to Part 26. In addition to the standards provided in Part 26, the General Counsel's Office at the USDOT has provided some additional guidance, and the USDOT's Office of Small Disadvantaged Business Utilization has adopted a pilot program and has drafted sample documents. Many M/W/DBEs and large prime contractors across the country have described the need to increase M/W/DBEs' capacities. Skill sets such as estimating, understanding of and adherence to specifications, billing and scheduling, accounting, safety, marketing, and meeting prequalification standards are possible areas of focus.

c. Evaluation of the Need for a Program for Locally Funded Contracts

A disparity study's results can be examined to determine whether the findings support the conclusion that the agency has a "strong basis in evidence" to implement race- and gender-conscious measures for its non-federal aid contracts. Factors to consider are:

- Does the study provide quantitative evidence of discriminatory practices and attitudes that impede opportunities for minorities and women on agency projects, regardless of the funding source? Are the disparity results statistically and/or substantively significant for any groups? If not, are the results driven by a few contracts awarded to a small number of firms? What is the impact on the results of the agency's current remedial activities? Can parity be achieved or maintained in the absence of contract goals?
- Does the study find disparities in M/W/DBEs' access to private sector contracts overall, and to those factors necessary for business success, such as access to the market for commercial credit, leading to the inference that discrimination is a significant cause of those disparities? Are there large, adverse and statistically significant

disparities for M/W/DBEs in business formation, business owner earnings and access to commercial credit and capital when compared to similarly situated non-minority male-owned firms?

- Does the anecdotal evidence support the conclusion that discrimination remains a major barrier to the full and fair participation of minority- and woman-owned firms on agency contracts? Do minorities and women report that contracting affirmative action is still needed to ensure equal opportunities for agency contracts and associated subcontracts?
- If the study results support a race- and gender-conscious local program, what remedies are supportable and effective?
- Are participating firms required to be owned by economically disadvantaged persons and that the firms be small? How are contract goals set? How is a bidder able to demonstrate their good faith efforts to meet contract goals? How is the certified firm's commercially useful function determined and monitored? What are the standards and processes for substituting a non-performing certified firm? How is a prime contractor's compliance with prompt payment requirements enforced? What sanctions may be imposed for non-compliance with program and contractual commitments?

It is helpful for an agency to bid some contracts that it determines have significant opportunities for M/W/DBE participation without any contract goals. This can be especially important to determining whether an entity with a long-established program continues to have a compelling interest in using race and gender in the consideration of contract awards.

An agency should continue to regularly review the evidentiary basis for its program and whether its implementation remains narrowly tailored to current evidence. A sunset date for the Program is suggested to meet the constitutional requirement of narrow tailoring that race-conscious measures be used only when necessary.

Develop Performance Measures for Program Success: An agency should develop quantitative performance measures for certified firms and the overall success of the program to evaluate its effectiveness in reducing the systemic barriers identified by the study. In addition to meeting the annual goal(s), possible benchmarks might include, the number of bids or proposals and the dollar amount of the awards, the goal shortfall where the bidder submitted good faith efforts to meet the contract goal; the number and dollar amount of bids or proposals rejected as non-responsive for failure to make good faith efforts to meet the goal; the number, type, and dollar amount of M/WBE substitutions during contract performance; increased

bidding by certified firms; increased prime contract awards to certified firms; and increased “capacity” of certified firms as measured by bonding limits such as size of jobs or profitability.

2. Appendix E: Legal Standards for Government Affirmative Action Contracting Programs

To be effective, enforceable, and legally defensible, a race-based affirmative action program for public sector contracts, regardless of funding source, must meet the judicial test of constitutional “strict scrutiny”. Strict scrutiny is the highest level of judicial review. Strict scrutiny analysis is comprised of two prongs:

- The government must establish its “compelling interest” in remediating 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; the program must be directed at the types and depth of discrimination identified.

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

- Statistical evidence of the underutilization of minority or woman 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 referred to as disparity indices.
- Anecdotal evidence of race- or gender-based barriers to the full and fair participation of minority- and woman-owned firms in the market area or in seeking contracts with the agency. Anecdotal data can consist of interviews, surveys, public hearings, academic literature, judicial decisions, legislative reports, and other information.

The narrow tailoring prong has been met by satisfying five factors to ensure that the remedy “fits” the evidence:

1. The necessity of relief;
2. The efficacy of race-neutral remedies at overcoming identified discrimination;
3. The flexibility and duration of the relief, including the availability of waiver provisions;
4. The relationship of numerical goals to the relevant market; and

5. The impact of the relief on the rights of third parties.

While most lower courts have applied “intermediate scrutiny” analysis to gender-conscious measures (gender-based classifications must be supported by an “exceedingly persuasive justification” and be “substantially related to the objective”), the Sixth Circuit Court of Appeals applies strict scrutiny.

In *Adarand v. Peña*, the United States Supreme Court extended the analysis of strict scrutiny to race-based federal enactments such as the United States Department of Transportation (“USDOT”) Disadvantaged Business Enterprise (“DBE”) program for federally assisted transportation contracts (which applies to the Memphis-Shelby County Airport Authority’s Federal Aviation Administration assisted prime contracts and related subcontracts and Airport concession contracts). Just as in the local government context, the national legislature must have a compelling governmental interest for the use of race, and the remedies adopted must be narrowly tailored to that evidence.

Classifications not based upon a suspect class (race, ethnicity, religion, national origin or gender) are subject to the lesser standard of review called “rational basis” scrutiny. Thus, preferences for persons with disabilities or veteran status may be enacted with vastly less evidence than that required for race- or gender-based measures to combat historic discrimination.

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 negative effects of economic factors on M/WBEs and the unequal 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. 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.

II. MEMPHIS SHELBY COUNTY AIRPORT AUTHORITY'S CONTRACTING AFFIRMATIVE ACTION PROGRAMS

A. Overview

The Memphis Shelby County Airport Authority ("MSCAA" or "Airport" or "Authority") administers three supplier diversity programs to promote full and fair contracting opportunities. MSCAA implements a Disadvantaged Business Enterprise ("DBE") program for federally assisted contracts funded by the U.S. Department of Transportation ("USDOT"); an Airport Concessions Disadvantaged Business Enterprise ("ACDBE") program for airport concession opportunities; and a Business Diversity Development ("BDD") program for its non-federally assisted contracts.

The Authority's contracts and procurements are administered pursuant to its Policy 801, *Purchasing*, dated July 2017. The system is designed around a central purchasing process.

The Business Diversity Development Office ("BDD Office") is responsible for planning, directing, organizing and coordination of MSCAA's affirmative action programs.

The Authority uses a software system for certification, compliance and monitoring of its programs. Tasks include:

- Vendor management, enabling vendors to manage their own records and submit contract payment details online.
- Contract compliance, allowing the Airport to add, manage and close out all types of contracts.
- Outreach and events management.
- Bid posting.
- Online vendor registration and applications.
- Certification management.

The Airport offers an array of vendor program outreach and training events which are listed in the online resource center portal. Outreach events have included:

- The Minority Marketing Vendor Showcase, hosted by the University of Memphis.
- An Economic Inclusion Outreach Session, co-hosted by the Metropolitan Nashville Airport Authority and Messer.
- A National Association of Women Business Owners Memphis presentation on “All About M/WBE Certifications”.
- The Economic Development Forum, one of the largest economic development conferences in the Mid-South region, which focused on the economic impact of growing scalable diverse suppliers.
- The Business Diversity Development Summit that offered workshops on bonding and insurance, marketing, estimating, bidding, joint ventures, access to capital, accounting and commercial lending.

The BDD Office continues to expand its network of community partners and contacts that support its efforts to level the playing field for participants in the BDD Program. In recent years, the Authority has provided innovative training in joint sealing, a specialized construction activity required by the Airport.

BDD Office staff participate in an array of civil rights training opportunities. These include:

- The Annual User Training Conference for clients of B2Gnow, Inc.
- The Federal Aviation Administration’s National Civil Rights Training Conference
- The Airport Minority Advisory Council’s Annual Diversity Conference
- The American Contract Compliance Association’s National Training Institute
- The Airports Council International-North America’s Business of Airports Conference

B. MSCAA’s Disadvantaged Business Enterprise Program for USDOT Funded Contracts

As a direct recipient of USDOT funds through the Federal Aviation Administration (“FAA”), MSCAA is required to implement a DBE program in accordance with 49 C.F.R. Part 26 (“Part 26”). The Airport administers a DBE Program Plan, which was

approved by the FAA in 2020. Updates are made periodically to comply with new Part 26 mandates and FAA directives.

MSCAA ensures non-discrimination in the award and administration of USDOT assisted contracts. Its DBE Program Policy ensures that DBEs, as defined in Part 26, have an equal opportunity to receive and participate in these contracts. The Authority disseminates its *DBE Program Policy Statement* to its Board of Commissioners, relevant departments, and DBE and non-DBE communities that perform work for the Airport.

DBEs and small firms are encouraged to register as a vendor in the MSCAA's Vendor Online Resource Center. The Center provides a list of procurement opportunities, account access, a list of certified businesses, and system training. They are also encouraged to submit bids or proposals.

1. Eligibility

MSCAA is a certifying member of the Tennessee Unified Certification Program ("TNUCP"). The TNUCP is a cooperative of federal-aid recipients within the state that conducts "one stop shopping" certification for the USDOT DBE Program and the Airport Concession Disadvantaged Business Program. Applications are reviewed by MSCAA's DBE certification staff.

To qualify for DBE certification, an applicant firm must demonstrate that it is a for-profit small business concern and at least 51 percent owned and controlled by socially and economically disadvantaged individuals.¹⁶ The firm's owner must be an American citizen or lawfully admitted permanent resident. Decisions are based upon the eligibility standards and procedures set forth in Part 26. To count towards a DBE contract goal, the firm must have been certified by the Authority or by another TNUCP entity at the time that responses to submissions are due.¹⁷

In 2018, MSCAA launched a new online certification process for businesses to apply for DBE certification. The process is part of its ongoing effort to increase efficiency and accessibility for prospective businesses.

2. DBE Goal Setting

As a recipient of FAA funds in excess of \$250,000.00 for airport improvement projects, the Airport sets triennial DBE goals using the Part 26 two-step goal-

16. Socially and economically disadvantaged groups are defined as African Americans, Hispanic-Americans, Native-Americans, Asian-Pacific Americans, Subcontinent Asian-Americans, Women, any additional groups found to be socially and economically disadvantaged by the Small Business Administration under Section 8(a) of the Small Business Act.

17. Section 26.55 (f) states that if a firm is not certified as a DBE in accordance with the eligibility standards at the time of execution of the contract, the participation cannot be counted toward DBE goals.

setting process.¹⁸ Prior to establishing a goal, MSCAA consults with minority, woman and general contractor groups, community organizations, and other officials or organizations that have information concerning the availability of disadvantaged and non-disadvantaged businesses, the effects of discrimination on opportunities for DBEs, and the Airport's efforts to establish a level playing field for the participation of DBEs. MSCAA's overall DBE goal submissions include a summary of information and public comments received, as well as MSCAA's response to these comments.

For Federal Fiscal Years ("FFYs") 2020 through FFY 2022, MSCAA established an overall goal of 26.67 percent, using its most recent Disparity Study, as well as historical spending, and future project lists.¹⁹ Of this amount, the Authority projects meeting 2.48 percent using race-neutral means and 24.19 percent using race-conscious (contract goal) measures. MSCAA will reassess its DBE goal based on the findings in this Report.

The Authority sets DBE contract goals only on those USDOT assisted contracts that have subcontracting possibilities. These contract-specific goals are based upon the scope of work, the location of the work, and the availability of DBE firms to perform the particular type of work. These virtually always vary from the overall triennial goal and are designed to be narrowly tailored to the details of the project.²⁰

3. DBE Program Administration

The Senior Manager of the Business Diversity Development Office ("BDD Office") serves as MSCAA's DBE Liaison Officer ("DBELO") and is responsible for administering all aspects of the DBE program in coordination with other appropriate officials.²¹ The DBELO and staff perform the following duties and responsibilities:²²

- Gathering and reporting statistical data and other information as required by USDOT.

18. The overall goal must be based on demonstrable evidence of the availability of ready, willing, and able DBEs relative to all businesses ready, willing, and able to participate on USDOT contracts. The goal must reflect MSCAA's determination of the level of DBE participation it would expect absent the effects of discrimination. 49 C.F.R. §26.45.

19. "The State of Minority- and Women-Owned Business Enterprise: Evidence from Memphis", NERA Economic Consulting and Colette Holt & Associates, 2013, <https://www.flymemphis.com/business-diversity-development-program>.

20. To ensure a narrowly-tailored, legally defensible program, a recipient is not required to set a goal on every FAA assisted contract or to set each contract goal at the same percentage level of the overall goal. The goal for a specific contract may be higher or lower than that percentage of the overall goal. See §26.51 (e)(2).

21. As required by Part 26, the DBELO reports directly to MSCAA's President and Chief Executive Officer.

22. Staff includes two DBE Program Administrators, a DBE Compliance Coordinator and a DBE Certification Specialist.

- Reviewing third party contracts and purchase requisitions for compliance with the program.
- Working with all departments to set overall goals.
- Ensuring that bid notices and requests for proposals are available to DBEs in a timely manner.
- Identifying contracts and procurements so that DBE goals are included in solicitations (both race-neutral methods and contract-specific goals) and monitoring results.
- Analyzing the Authority's progress toward attainment and identifying ways to improve progress.
- Participating in pre-bid meetings.
- Advising the Chief Executive Officer/governing body on DBE matters and achievement.
- Chairing the DBE Advisory Committee.
- Determining contractor compliance with good faith efforts.
- Providing DBEs with information and assistance in preparing bids, obtaining bonding, and insurance.
- Planning and participating in DBE training seminars.
- Acting as liaison to the TNUCP.
- Providing outreach to DBEs and community organizations to advise them of opportunities.
- Maintaining the directory of certified DBEs and distinguishing them from ACDBEs.

4. DBE Program Elements

a. Prompt payment

In conformance with Part 26, prompt payment and release of retainage obligations are set forth in FAA assisted contracts.²³ All forms of USDOT assisted agreements are covered by prompt payment requirements. Prime contractors must pay subcontractors within 15 days from the receipt of each payment the prime contractor receives from the Airport. MSCAA's contract clause applies to both DBE and non-DBE subcontractors. MSCAA

23. These clauses are both a Part 26 requirement and a contractual requirement.

will not hold retainage from prime contractors and prohibits prime contractors from holding retainage from subcontractors.²⁴

b. Counting DBE participation

In order to be responsive, a bidder/offeror must either meet the DBE contract goal or document its adequate good faith efforts (“GFEs”) to do so. If it cannot meet the contract goal, the bidder/offeror must submit a narrative and documentation demonstrating its GFEs. GFEs are efforts that bidders are reasonably expected to meet to produce a level of participation sufficient to meet the contract goal. MSCAA follows the guidance set forth in Appendix A of Part 26 as its frame of reference and guide for evaluating GFEs.²⁵ The bidder/offeror must also submit the *DBE Goal Accomplishment Statement* and supporting documentation that conforms to the GFE requirements of Appendix A in order to be responsive. This document demonstrates whether the bidder/offeror is committed to meeting the DBE contract goal.²⁶ The DBELO is responsible for determining whether a bidder/offeror has documented sufficient GFEs.

Within five business days of being informed by MSCAA that it has not documented sufficient GFEs, the apparent successful bidder/offeror may request administrative reconsideration by writing to MSCAA’s President and Chief Executive Officer, who will not have played any role in the original determination.²⁷ The bidder/offeror will be given the chance to provide written documentation and arguments in support of its GFEs submission and to meet in person with MSCAA’s reconsideration official. The Authority will issue a written decision explaining the basis for finding that the firm did or did not meet the goal or adequately document its GFEs to do so. This disposition is administratively final and is not appealable to USDOT.

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24. To implement this measure, MSCAA utilizes verbatim the language from FAA Advisory Circular 150/5370-10 (Section 90-06) in each USDOT assisted contract.
25. Appendix A contains a list of types of proactive actions which are considered part of a GFE evaluation. However, the list is not intended to be exclusive or exhaustive, since GFE determinations are inherently fact-specific and require a judgment call. Examples of GFEs include soliciting through all reasonable and available means the interest of all certified DBEs who have the capability to perform the contract work; selecting portions of the work to be performed by a DBE in order to increase the likelihood that the goals will be achieved; providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner; negotiating with interested DBEs in good faith; not rejecting any DBE as being unqualified without sound reasons based on a thorough investigation of their capabilities; and making efforts to assist any interested DBE in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.
26. The bidder/offeror must detail the following: (1) the names and addresses of DBE firms that will participate in the contract; (2) a description of the work each DBE will perform; (3) the dollar amount of the participation of each DBE firm participating; (4) written and signed documentation of commitment to use a DBE subcontractor whose participation it submits to meet a contract goal; written and signed confirmation from the DBE that it is participating in the contract as provided in the prime contractor’s commitment; and (6) if the contract goal is not met, evidence of good faith efforts.
27. Section 26.53 (d) requires that a DOT recipient offer the bidder/offeror administrative reconsideration before awarding the contract. Section 26.53 (d) (5) states that the result of the reconsideration process is not administratively appealable to the DOT.

Contractors must document GFEs before contract award and through the life of the contract. DBEs serving as prime contractors must meet contract goals and document GFEs if their self-performance falls short of contract goals. DBEs may count toward goals the work they perform with their own forces, as well as work performed by other DBE subcontractors and DBE suppliers.

When there is a contract goal, the bidder or offeror must submit within the bid or proposal, a *DBE Assurance Statement/Letter of Intent* which includes the list of all DBEs that will be used; a description of the service or work DBEs will perform; and the commitment to the dollar value and percentage of the overall contract of the DBE's work or service. This includes first, second, and third tiers and all DBEs must sign the document. If a respondent submits an assurance document that is incomplete of all DBE signatures and quotes, it will be given 24 hours from the bid submission deadline to submit the completed statement.²⁸ MSCAA will not count participation under a DBE subcontract toward a contractor's final compliance with its DBE obligations on a contract until the amount being counted has actually been paid to the DBE.

Prime contractors are not authorized to terminate a DBE subcontractor or an approved substitute DBE firm without the Airport's written consent. Under § 26.53(f)(i), impermissible reasons for termination include, but are not limited to, instances in which a prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.²⁹ The prime contractor must notify the DBELO immediately of the DBE's inability or unwillingness to perform and provide reasonable documentation. In such event, the prime must obtain written administrative approval for a substitute DBE and must provide copies of new or amended subcontracts or documentation of GFEs to obtain a replacement contractor. The GFE must be documented by the contractor.³⁰ In addition to post-award terminations, approval applies to pre-award deletions of, or substitutions for, DBE firms identified in negotiated procurements.

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28. The bidder/offeror must also complete the *Information on All Firms that Provided Bids or Quotes* document, a requirement that applies to all firms, regardless of whether they are subs or primes. The content must include the name, address, phone number, and contact person for every firm that provides the prime a bid or quote even if the firm is not actually used.
 29. MSCAA's written concurrence is required. Section 26.53 (f)(3) (i)-(ix) provides a list of factors that may constitute good cause to terminate a DBE firm.
 30. If the MSCAA requests documentation from the contractor, it must be submitted within 7 days, unless it is extended for an additional 7 days at the request of the contractor.

c. Contract Monitoring

The DBE Program Administrator and the Compliance Coordinator ensure adequate contract monitoring and compliance and conduct commercially useful function reviews to confirm that the firm is independent and is performing, managing, and supervising the contract work. This includes visiting the construction site on a routine basis to verify the DBE's performance. Under § 26.55(c)(1), a DBE performs a commercially useful function ("CUF") and carries out its responsibilities by actually performing, managing, and actively supervising on-site the execution of the task by the entity for whose work the DBE is responsible. A DBE does not perform a CUF if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation.

Contractors must maintain records and documents for three years following contract performance. These records must be available for inspection upon request by any authorized representative of MSCAA or USDOT.

The Authority annually audits a sample of certified firms to ensure compliance with Part 26 requirements. The audit entails a review of payments to DBE subcontractors to ensure that the actual amount paid to DBE subcontractors equals or exceeds the dollar amounts stated in the schedule of DBE participation. If a problem exists, the Office of Business Diversity Development, in conjunction with the relevant Authority Division representative, works with the contractor to resolve the matter.

d. Small Business Participation Program

In conformance with Part 26 requirements, MSCAA has created the Small Business Participation Plan ("SBPP"). The SBPP is a race-neutral program designed to facilitate competition by small business concerns.³¹ In implementing the SBPP, the Airport takes all reasonable steps to eliminate obstacles to their participation, including unnecessary and unjustified bundling of contract requirements that preclude small business participation in procurements as prime contractors.

Businesses must meet the following standards to participate:

- The business must meet the size standards in accordance with 13 C.F.R. Part 121 for its industry and have business gross receipts below \$23.9M (the cap in the DBE program).

31. In conformance with, § 26.39(c), a USDOT recipient must actively implement its program elements to foster small business participation. This is a requirement of good faith implementation of the recipient's DBE program.

- Business management and daily business operations must be controlled by one or more United States citizens.
- The owner(s) personal net worth cannot exceed \$1,320,000.00 (indexed in the DBE program).
- The business must complete the online vendor verification application.
- Applicants must submit the SBE Application and an Affidavit of Certification and provide supporting documentation. Once this is completed successfully, vendors will be allowed to bid on SBPP projects.

The SBPP utilizes the following strategies:

- Establishes a race-neutral small business set-aside for prime contracts under a stated amount (*e.g.*, \$1M or another amount).
- Requires prime bidders on multi-year design-build contracts or other large contracts (*e.g.*, for “megaprojects”), to specify elements of the contract or specific subcontracts that are of a size that small businesses, including DBEs, can reasonably perform, rather than self-performing all of the work involved.
- Requires the prime contractor on contracts without DBE contract goals to provide subcontracting opportunities of a size that small businesses, including DBEs, can reasonably perform, rather than self-performing all the work involved.
- Identifies alternative acquisition strategies and specific procurements to facilitate the ability of consortia or joint ventures consisting of small businesses, including DBEs, to compete for and perform on prime contracts.
- To meet the portion of its overall goal it projects to meet through race-neutral measures, ensures that a reasonable number of prime contracts are of a size that small businesses, including DBEs, can reasonably perform.

The BDD Office also works with internal departments to seek opportunities for projects not greater than \$1M for which SBPP firms can compete. Bid documents are forwarded to business associations and advocacy groups.

e. Outreach and Training

MSCAA employs a variety of race-neutral approaches to facilitate DBE and small business participation. Business Diversity conducts outreach, infor-

mational and training activities; stakeholder meetings; open houses; luncheons, and financial/technical assistance for DBEs. The Authority's website³² provides information on new contracting opportunities at the Airport, pre-bid dates, times and locations, and other important information. It offers a DBE Forms Class that is accessible online to assist bidders in completing forms correctly during the life of a federally assisted contract.

C. MSCAA's Airport Concession Disadvantaged Business Enterprise Program

Since MSCAA operates a small hub primary airport (MEM), it is required to establish an Airport Concessions Disadvantaged Business Enterprise ("ACDBE") Program in conformance with 49 C.F.R. Part 23 ("Part 23") and its ACDBE Program Plan.

While the Authority owns two general aviation airports,³³ no concession opportunities have been identified for these facilities. It is the policy of MSCAA to ensure non-discrimination in the award and administration of opportunities for concessions by airports receiving USDOT financial assistance. As required by Part 23, MSCAA seeks ACDBE participation in all types of concession activities, rather than focusing participation in one or two categories to the exclusion of others.

Part 23 requires a recipient to establish two overall ACDBE goals. For federal fiscal years 2018 through 2020, the ACDBE goals are as follows:

- Non-Car Rental concession contracts: 21 percent, with 21 percent to be achieved through race-conscious contract goals and 0 percent to be achieved through race-neutral measures.
- Car rental concession contracts: 3 percent, with 3 percent to be achieved through race-conscious contract goals and 0 percent to be achieved through race-neutral measures.³⁴

To be certified as an ACDBE, an applicant firm must meet the Part 26 eligibility standards as well as the following Part 23 business size requirements:

- Concessionaire/goods or service provider: Three-year averaged gross receipts under \$56.42M.
- Banks and financial institutions: Assets under \$1B.

32. www.flymemphis.com.

33. Charles Baker Airport (2M8) and General Dewitt Spain (M01).

34. MSCAA's 2013 Disparity Study was used to establish the goal, in addition to data on ACDBEs' past participation on Airport concessions contracts.

- Car rental companies: Three-year gross averaged gross receipts under \$75.23M.
- Pay telephone companies: 1,500 employees or fewer.
- Automobile dealers: 350 employees or fewer.

MSCAA's concessionaires must comply with all applicable provisions of its *ACDBE Program Plan* and special contract provisions. They must maintain records to document goal attainment.

The ACDBE program shares the following characteristics with the DBE program:

- A contractor must make GFEs to meet the ACDBE goal as a matter of responsiveness.³⁵ MSCAA evaluates GFEs using the guidance set forth in Appendix A of Part 26. The ACDBELO makes the initial GFE determination. Within five days of being informed by MSCAA that it is non-responsive; a concessionaire may request administrative reconsideration by the Airport's President and CEO.
- Business Diversity monitors compliance with program requirements to ensure that work committed to ACDBEs at contract award is actually performed by ACDBEs. It uses an electronic system to collect and report data on the program. Where necessary, the Contract Compliance Coordinator will visit prime concessionaires to obtain records necessary to confirm compliance with DBE regulations and policies. The Coordinator also attends engineering and other construction meetings.
- A concessionaire must make GFEs to replace an ACDBE that is terminated or otherwise failed to perform with another certified ACDBE, to the extent necessary to meet the contract goal.
- The Airport has available several remedies to enforce the ACDBE requirements contained in its contracts.

D. MSCAA's Business Diversity Development Program

MSCAA's Business Diversity Development Program ("BDDP") is designed to encourage disadvantaged, minority- or woman-owned businesses to participate in the Authority's non-federally funded projects. The genesis of the program was the

35. Responsiveness refers to a bid that comports with bid instructions. Responsibility, as used in government contracting, refers to the bidder's capability to provide what the specifications require.

1994 *Memphis-Shelby County Intergovernmental Consortium Disparity Study*.³⁶

The program has been regularly modified in response to other studies.³⁷

Through the BDDP and its other affirmative action contracting programs, MSCAA ensures that its own policies and practices are non-discriminatory and endeavors to influence private sector actors to change any of their own practices that cause discrimination. MSCAA seeks to ensure that it is not a passive participant in marketplace discrimination.

The objectives of the BDDP are:

- To provide an environment that promotes equal access and maximized business opportunities to M/W/DBEs seeking to provide goods and services to MSCAA.
- To provide technical and developmental assistance to M/W/DBEs in order to promote their stability and growth.
- To serve the entire community through the process of inclusion and create and implement initiatives that promote the enhanced economic, business and educational concerns of the community.
- To increase the visibility of the Business Diversity Development (BDD) Department among small and diverse businesses and other agency stakeholders.
- To increase the efficiency of the administrative functions of the BDD Department and improve monitoring and tracking of all airport projects.

1. Eligibility Requirements

Since 2004, MSCAA has used the eligibility provisions of the USDOT DBE regulations to determine whether an applicant firm is eligible to participate in its BDDP. Participants must meet the certification requirements of Part 26. MSCAA performs the certification process.

The firm's owner must possess the requisite business acumen and expertise to perform the main functions of the firm. Where required, it must have a license. A firm receives certification in the applicable North American Industry Classification System ("NAICS") code(s) for its work type(s) or industry. As firms grow, they are afforded the opportunity to request additional NAICS codes.

36. The Consortium was comprised of eight other governmental agencies and the Greater Memphis Chamber. The Study concluded that disparities existed between majority firms and M/W/DBEs in the Memphis Metropolitan Statistical Area.

37. The continued need for the program was set forth in a resolution passed by the Board of Commissioners in 2009. This resolution was based on the 2008 Disparity Study's finding of a factual and legal basis to continue the program. The program was also reviewed in light of the Authority's 2013 Disparity Study, which also found statistical and anecdotal evidence of discrimination and the continuing need for the program.

Firms must be certified through MSCAA or the TNUCP at the time of bid/proposal submission.

2. Contracting Requirements

To the extent applicable, the BDDP utilizes the Airport's DBE program contract and bidding requirements, policies, documents, standards, and procedures. The Authority adopts race- and gender-conscious goals similar to the DBE program for appropriate contracts and establishes goals using the latest DBE goals submissions and other historical data.³⁸ Goals for overall MSCAA spending on locally funded contracts are established annually with regular reports to the President and Board of Commissioners.

In addition to online information, the Airport posts all bids and legal notices in Memphis metropolitan area newspapers and on its website.

E. MSCAA's Local Preference Program/Policy

In 2013, the Authority adopted a race- and gender-neutral Local Preference Policy to assist businesses located in Shelby County to compete for its non-federal contracts valued at \$25,000.00 or greater.³⁹ The five percent price preference is applied when it is reasonable in light of the dollar value of the proposal received, relative to such expenditures. Vendors must meet all applicable specifications and requirements of bids. If the lowest responsive bidder is a regional or non-local business, then all bids received from qualified responsive local businesses are decreased by five percent. While the original bid is not changed, the five percent decrease is calculated only for the purpose of determining the local preference. The local preference cost differential cannot exceed \$100,000.00 and cannot be applied to emergency purchases or contracts or any other noncompetitive contracts. The preference criteria do not prohibit the Authority from giving any other preference permitted by law in addition to the local preference. The preference does not apply to purchases or contracts funded in whole or in part by a governmental entity where the entity prohibits local preferences.

In requests for proposals, letters of interest, best evaluated bids, requests for qualifications, or other competitive negotiation and selections in which objective factors are used to evaluate responses, local businesses are assigned five percent of the total points of the total valuation points up to a maximum of five points. If there is a tie between a local business and one or more non-local businesses meeting specifications, the ties shall be broken in favor of the local business.

38. Project goals are derived from the latest DBE goal, the Disparity Study, NAICS codes, past participation and other historical data.

39. MSCAA cannot use a local geographic preference in FAA assisted contracts.

The local preference may be waived before any bids are taken, subject to written justification and recommendation of the Authority to compare qualification, character, responsibility, and fitness of all persons, firms, or corporations submitting bids or proposals.

To be eligible to participate, the vendor must provide: (1) a copy of the domestic Shelby County and Tennessee business license; (2) proof that Shelby County Personal Property Taxes and all other necessary local business operational taxes inherent to businesses, whose principal place of business is located within the County of Shelby were appropriately paid and/or authorize the governing bodies and/or appropriate officials of each agency to release such information to the Authority; and (3) proof that the vendor's principal place of business is within Shelby County.

F. Business Owner Interviews

To gather anecdotal evidence of the effectiveness of current MSCAA policies and procedures in leveling the playing field for M/W/DBEs on federal-aid and locally funded contracts, CHA interviewed 118 firm owners or representatives. The following are summaries of the issues discussed and their suggestions for changes. Quotations are indented and are representative of the views expressed by multiple participants. Highly repetitive or idiosyncratic comments were not included. Some quotations have been shortened for readability.

1. Race- and Gender-Neutral Program Elements

We explored the effects of race- and gender-neutral policies such as contract size, experience requirements, insurance requirements, etc. on all firms and whether they have a disproportionate impact on M/W/DBEs and other small businesses. As discussed in Appendix E on the legal standards governing contracting affirmative action programs, MSCAA must evaluate and use race-neutral measures to the maximum feasible extent.

a. Payment

Most firms reported that the Airport pays promptly and that prime firms promptly pay subcontractors on Airport jobs.

One thing I can say about the Airport, the Airport is like clockwork. They pay you.

b. Access to Information about Upcoming Opportunities

Most attendees praised MSCAA for the ease of access to information about upcoming opportunities.

They have staff, people on staff, who are really good at what they do. And really paying attention, and good at communication. So, that's in the plus column.

I've never had a problem with the Airport.

c. Contract size, Specifications and Procurement Methods

The large size of many MSCAA projects is a barrier to all small firms. "Unbundling" contracts was suggested by M/W/DBEs and non-M/W/DBEs as a way to increase opportunities for M/W/DBEs and other small firms to perform as prime contractors and as subcontractors on the Airport's large projects.

So many of the contracts are so big that the place for a small or emerging firm is completely cut out, and it's very difficult for the Airport to tell their primes, break some of your contracts up into smaller pieces, which would be very, very helpful, instead of saying in the 50 million dollar contract, 40 million of it's going to this concrete or staffing or electrical. If they could allow them to break it up into bite size pieces where more DBEs could have a chance to even get a foot piece would be very helpful.

Incenting the primes to break some of the subs [work scopes] into smaller pieces [would be helpful].

The experience requirements were also reported to be a frequent impediment. Several M/W/DBEs complained that the Airport, in their view, favors certain firms and tilts the process towards incumbents.

[I]t's the experience thing and not accepting equivalent experience or writing specs [for materials] that only one electrician in town carries. He's a dealer for this item, so they write the spec to that item, and there's no exception. There's a lot of games like that, that the back-office engineering plays that excludes newcomers, regardless of their experience, from getting in.

[The Airport's construction manager] kind of controlled everything out there, even on their diversity end. In that office, everybody has to answer to those guys. And that's where a lot of problems come in with the specs.... It's a war when you go out there. It's like fighting a war.... [For example,] if you have to have a third ladder to use, if a majority [firm] use it, it's okay, but if we use it, then we have to stop and go purchase another one and use the right one.

And that's my problem. It may be negative, but that's what I run into: a lot of negative stuff with the management company.

It's a war zone.

It may not even be a racism thing, but I feel like people do business with the people they used to doing business with, and they write the specs to hold true to that.

You have to have enough experience to know who they're talking about [in the specifications], even if you're going to bid it as a general.... If they have in mind XYZ, and I list [ABC] on the outside of my envelope, I can't say they would throw it out, but there are preferences.

They'll find a way.

As a general, you just kind of know the field at some point, good enough to know who they had in mind when they wrote that spec.

The specs are written for certain companies.

Whoever the Airport is hiring to write their RFPs are writing the RFPs for the large architect firms. And then it seems like it's unfair to give, not the architect firm, but the construction companies to set a goal and then the construction companies have the ability to approve. It's just like you say, "Okay, we're going to tell you what to do, but you can still do what you want to do."

That's a common thing for most minorities and most smaller businesses in general. If you're not in the club, they can, if you're not aware of everything that's in the spec and a student of reading, it can become problematic for you.

Several participants mentioned difficulties in obtaining surety bonds as a major impediment to M/W/DBEs and small firms performing on Airport projects. A lack of bonding impacts both the M/W/DBEs receiving prime contracts and non-M/W/DBE bidders' ability to use M/W/DBEs as subcontractors. We note that the agency requires a performance bond even for professional services contracts, a highly unusual responsibility element.

Bonding is a big issue.

That's the biggest hurdle you're going to have to go through as [a] DBE is you cannot get bonded.

But when we looked at this last bid for the parking garage out there, now, when we tried to bid that, they denied us. They would not let the general contractor give us a bid bond.

When we got the [name] contract, our bonding was our biggest issue, our biggest obstacle because we hadn't completed a job as large as the contract that we had been awarded. And so, we weren't able to bond the full scope of the job. Well, the prime contractor, because I develop a relationship with them, they were able to kind of finagle the contract, subcontract and do a purchase order and we didn't have to do joint checks, but we made it so we could actually still do the entire project contract even though we couldn't bond the entire thing. So, I think, that is so critical.

Support to small contractors to bond Airport jobs was one solution.

Get some representatives from bonding companies, that would help a lot. Because especially with the DBEs, they could be good DBEs but when we get down to can you bond? And especially with the amount that they may have been awarded. It's almost like we've got to bond them just for our protection and they can't bond.

The minorities tend to be smaller firms, which is part of the problem with getting to the bonding and getting the insurance. When we try and grow one up, it's very difficult to get them bonded out at that level. Sometimes you'll have a good guy that's doing good job, but he's not ready for the security and all the things that come with these larger jobs [at the Airport]. And so that's where if you can have the small business program, I think that would be really valuable to the Memphis area, would give people experience

One prime contractor had assisted M/W/DBEs to obtain bonds.

We've had two M/WBEs and a couple DBEs that thought they couldn't bond as high as we need them to. And we actually got them with an agent that just so happened to have been at another conference, and I got her card. And she was able to get them bonded. They didn't realize that they could even bond that high. So, sometimes they just don't know.

Obtaining the levels of insurance coverage necessary to perform aviation contracts was another hurdle for M/W/DBEs and other small firms.

Provision of insurance can be problematic, especially if you're working at an airport. Those requirements under those contracts are pretty severe because of the nature of the risk out there.... The [Owner Controlled Insurance] program is a hugely successful program to allow DBEs to participate. That really will enable because you're going to require a DBE to carry out the \$100M, \$200M of coverage and they just don't have that.... It's the funding of the worker's comp program. It's the focus on safety and the training on safety.

More flexible procurement methods such as design-build or construction manager at risk were suggested as ways to increase DBE participation.

With the RFQ process or RFP or bringing on a construction manager at risk, it allows the most qualified contractor to help the Airport develop the goal and either exceed the minimum goal or develop a goal that's realistic for that particular type of work.

They actually can maximize what they're looking for, but they minimize what they're looking for when they throw it out there as a lump sum in a big old holistic goal. So, it's something that the Airport really should really think about doing and looking at as an approach. You know, looking at all the other airport authorities that we do business with, they're all C[onstruction] M[anager] at risk.

We would like to do some [MSCAA work] as a partner and not as the lump sum contractor that they can beat up on.

If you're really pitted against the other contractors, other general contractors in lump sum, low dollar wins [then] your [DBE participation] outcomes are lot smaller.

d. Assistance Programs for DBEs and Small Firms

Some general contractors and M/W/DBEs suggested the Authority provide more technical assistance and supportive services to M/W/DBEs. The complexity of airport jobs requires training and support.

Doing Airport work, there's a lot more paperwork involved.

[DBEs] don't have the computer skills. If you don't have your computer skills, you're just out of business in construction now.

I was going to say that back office training that you mentioned, that would be extremely helpful I think for new small business just to get. Because some of the systems that you're talking about, people are not aware of them. They know how to pull a spreadsheet together, and so that's what they use.

They're behind on computer skills. I mean they're DBEs, they're disadvantaged businesses. You've got to help them come up, I mean we can sit around here and complain about that all day long, but the fact is, until you help these companies come up to where they can be on your level, then they're always going to be that way. That's the purpose of this. It's not to complain about how bad they are; they're bad that's why they're DBE. That's why you got to use them.... You've got to help these poor people and I was one of them. I started with \$200. You know I've done five million in one year. To me, that's the goal from nothing to five million. I got help on the way, and you know you have to have some self-help.... That's how you keep business going. That's how you distribute it. It has to be done.... There's some of them that are going to be successful, and they're going to come out of it like I did and they're going to be able to do good jobs. And help the economy, and hire people, and pay taxes. That's what you want.

You don't want them to fail and go back on welfare and food stamps. You want them to succeed as much as anybody because you're paying the taxes of it.

Access to capital was another common barrier.

This year [the Authority] had a couple of good sessions where it was a couple of days and they were talking about the bonding and the contracting, they had someone from, one of the vendors from USDOT come.... Especially for minorities, we really need to have the information and know every single step.... Have some financiers out there. There are different programs that'll help with funding if you can't get traditional funding.

Providing more targeted assistance was felt to not only increase M/W/DBEs' capabilities but also take some of the burden off of larger contractors.

We, as a G[eneral] C[ontractor], are constantly having to help them throughout the project, which is just difficult to do.

2. Race- and Gender-Conscious Program Elements

a. M/W/DBEs' Perceptions of the Programs' Overall Effectiveness

As described in detail in Chapter VI, in general, M/W/DBEs reported that being certified created opportunities that otherwise would not have presented themselves. The Authority's affirmative action programs were seen as vital to the continuing viability of their companies.

It has been very helpful to me, the WBE specifications, on federal and state work. I am on three projects right now that my year would have not been near as nice financially had I not had those three.... Some of them would have [used my firm without the goal]. Some of them wouldn't probably. They have to at least take a quote from me. And also, it helps them satisfy the quotas the government sets up because to be perfectly honest, it is sometimes hard to find both women- and minority-owned businesses that can fulfill the obligations, solely on a job as big as the airport and be able to perform the tasks they need to do.... A lot of these big [private sector] plants now like to have women and minority businesses participate in the construction of their plants.

Primes will keep the jobs within their own insulated group. If there weren't requirements to use women-owned or minority-owned companies, it's not going to happen. It's just in human nature.

On the construction side, every construction project that I've worked has had a goal. If it does not have a goal, I don't work it and a lot of times I'm fighting to get the RFP. I'll call and say, "Hey, when is RFP [issued]?" They "don't have a goal". I didn't ask them that. I asked them when is the RFP [coming out]?" ... [The] goal has to be there, or you don't play construction.

We try to use our certifications to grow and develop our people, grow and develop our services, grow and develop our company.

Getting that opportunity to improve our practice, improve our skills, and also improve our resume is excellent.

Some larger M/W/DBEs counseled new and less experienced firms to be more proactive about getting Authority work.

Certification is not giving us any advantage to do anything, you know, so we have to position ourselves to be in a flow of information, show up at the meetings, start to interact with the people who are the decision makers like the gentlemen said over here because, and then there has to be that sort of pressure, so the culture is that we're going to really make this happen, not just to be in compliance.

b. Obtaining Prime Contracts

M/W/DBEs found prime contract awards difficult to obtain. While they can count their self-performance towards meeting contract goals, many felt excluded from the opportunity to serve in the lead role. Some bidders believe there is a preference for large, national "name" firms.

There should be more programs to favor minority-, women-owned DBE general contractors to help us over some of those hurdles that allow us to graduate from just being the submissive stuff.

A lot of people it's like, "You need to keep subbing. You need to keep doing your pushups. You need to keep doing. Don't get greedy." The mindset never gets you to where you're trying to go. And stop thinking that you can get there.

And so, when we're just given that little bitty [piece], not very challenging work. It doesn't help me grow as a company. I would much rather have something that develops my people, something that's a little challenging, something that we can learn from because then we can take that to the private sector and offer those services that maybe it was hard to get into on the front end without that resume building part of it.

I asked [MSCAA] for a debrief [about why I wasn't awarded the project]. And the only answer was kind of like, well the

other companies have airports in every state. And I was like, "Well, we have Memphis. No way they can outperform me in my own city." And they can't. I mean, if I've been a sub for 10 years, you know, that's proof in the pudding that he can perform his work. So why didn't I get awarded the contract? They let you know that you're going against billion-dollar firms. There's something else that I'm missing, you know? It wasn't the work, it wasn't qualifications.

I'm subbing but I'm teaching them actually how the Airport runs.

We'll give them a chance to sit at the table and we heard his presentation just to say we did it, but we're not going to really give them this job. And the job is not big. I mean, actually I have government contracts that are twice as large as the Airport.

c. Meeting M/W/DBE Goals at Contract Award

The goal setting process and meeting contract goals elicited more comments than any other topic, especially from majority owned firms.

Firms that bid Airport projects mostly reported that they have been able to meet the goals.

We've always met our goals.

We've been successful, met the goal on the design phases of our project.... We meet our numbers through the lump sum portion.

We already had ourselves aligned with a partner, so it's just been a very good relationship from the start.

Teach [other local] Memphis [agencies] what the Airport does. I think the Airport does phenomenal.... They've been extremely fair to all of us.

There was a common perception that there are not enough Memphis-based certified firms to meet goals.

Whereas large projects are larger scopes, and it's hard to get the qualified DBEs to meet those goals.

It's not that [DBEs are] bad *per se*. We're doing a project for FedEx right now that has a 15 percent goal; we're achieving.

It's that there's not enough of them to go around to meet the goals. That is the problem.

There's just not enough of them out there.... On the engineering side, there's one that I think everybody's been using. They're just everywhere, but they're getting swamped.

You just have to be able to find ways in which you get subtiers involved and things like that. But I think in a lot of respects there, you have the opportunity to set firms up for failure.... The fact that they bite a bone they can't chew.

With that 25-30 percent goal on projects of 100 million dollars plus, it is a huge challenge trying to find 30 million dollars' worth of DBE participation. You know, typically in our line of work, there's no paving. There's a handful of scopes that you can get it, but those scopes don't add up enough to meet the goals here.

You can only grow so fast. And the talent pool in Memphis is not that great. Finding the right people to get to do the job, to grow like that is ... I wouldn't even want to try to do it in Memphis now.

Look at your goals based on project size. And the larger projects having smaller goals, more achievable goals. There's just not that many guys out there that can do it. And also, the other part that comes into it is the resources available to maintain the schedule and complete the project on time.

Some jobs are harder than others to meet it just because of the size and complexity. Like our project, when you've got a 120-something million-dollar job, it's hard to find DBEs that have capacity to do something of that size and complexity.

We also do a lot of military work, and as a large business for the federal government, we have to do a small business especially with all of our proposals. And their program is set up more as goals, rather than requirements. And I think that that program was a lot more fair, and maybe it's just the way its handled than it is with the FAA programs.

The certification list was reported to be cumbersome and often businesses list so many codes it makes it difficult to search for a qualified firm.

The list is just humongous. And you've got to spend time searching through this list, trying to find out if this sub is certified to do that [type of work].... They might be on the list 30 times. For different scopes of work. So, the companies just really don't understand the process.

The [Business Diversity Development] Office has been helpful.

We've had some success getting firms properly certified. [The] office has been super helpful for us. But there is the issue of a firm being certified in Mississippi, but they can't get certified in Tennessee in time for bid.

Prime firms sometimes felt that using M/W/DBEs increased their risks.

In this business [of airport construction], to work with someone that you don't know. It's really dangerous. You're at great financial risk, you're putting your name and your reputation, your brand, on the line to deliver a service and a product. So, when you're working with companies that you're not familiar with, then that's risky.

There's a lot of jobs I won't bid because first thing I do is see what the requirement is. If it's 30 percent, I know I'm never going to get it. So, I don't even waste my time, because I'm a small company. I have to do the estimating. All the bid forms, and it's a tremendous amount of paperwork you got to turn in on bid day.... You're getting [subcontractors] giving you bids 30 minutes before, you got to drive. I've got to drive to the airport with sealed envelope and get there on time.

[High goals] forces you to go to people that you have not worked with. We've worked with the same mechanical engineer for close to 40 years. Why do I want to go to anybody else that I have to spend more effort and time coordinating and try to figure out how to charge the airport more to do that? On a situation that I have minority engineers that I've used for 15, 20 years, I can stay with them. But when I get into starting to deal with the people that I work with every day and having to learn how to work with someone new, that's why the joint venture works for us because we've worked with this firm several times in the past.

Compliance with program requirements at bid or proposal submission is made more difficult by the Authority still using a paper bid system.

[The lack of an electronic bid system is] ridiculous. We've complained about it, so I quit complaining. It's stupid.... And the DBE contractors turn in their numbers with 20 minutes to go.... So, a typical scenario is to have somebody at the Airport in the car, with all the papers filled out. And they write in the numbers in total on a calculator. And walk in with five minutes to go.

Some M/W/DBEs reported that they have been approached to serve as "pass through" businesses, that is, certified firms that will not perform a commercially useful function on the project but are listed in the utilization plan as a conduit to meet the goal.

[It happens] all the time.

All [the DBE] did was process the paperwork.

It's a pass through, where they'll call me and say, "Hey, can you bid this for us? We'll give you a percentage." You know, that stuff happens all the time. It's ridiculous. I don't do it.... [It's] not just the Airport, either. Anything around Memphis.

A lot of [DBEs] probably feel pressured into well, if I don't go ahead and take this, I won't get a chance to work at all.

Increased costs for using M/W/DBEs were reported by some general contractors.

If we don't meet the participation [goal], we won't be awarded [the project]. So, we're running the risk of having too high costs, or having the right cost without participation. And it's really a big show game for us on bid day, where it leads to mistakes and leads to a lot of extra cost.

It often requires additional dollars towards the job in order to bring in that percentage.

Sometimes costs you double.

The thing we heard from the three that actually bid it was that they had problems with local minority contractors who were subbing out the majority of the work to other prime contractors that were not DBE firms. And they were basically doubling the price. And I'm talking about millions.

They were doubling. And that accounted for about 30 percent of the overage on the bid

Whatever the difficulties in meeting goals, few participants reported trying to seek a reduction of a goal based on a demonstration of their good faith efforts to do so. Many bidders stated that if they cannot meet the goal, they do not bid the work. Submitting evidence of their good faith efforts to do so was seen as futile.

It's been my experience that they say you fill out all the paperwork and turn it in, but if you don't meet the goal, you don't get the job. So, for them to go through all the good faith effort and everything, I've never seen it to where doing all that, you get awarded the job.

The entire process was reported by some smaller general contractors to be so burdensome that they often do not submit bids to MSCAA.

As a small contractor, is it worth the investment for you to invest in a person that that's their job? You know, how much work are you doing at the Airport, can you dedicate a salary to that to help grow your business.

[The Authority says] you could advertise, you can invite them to your office, you can buy them a set of plans. Estimate the job you financed for. I mean, they ask too much for a small business. If I had a staff of maybe 30 people, maybe we could do that.

However, another mid-size firm felt that this comes with the territory.

If this is going to be your livelihood and this is the ring that you're going to play in everyday, you need to get the players to play in it. This is what I'll say as a mid-size contractor.

d. Monitoring of Goal Commitments

Most participants reported that the Business Diversity Development Office closely monitors commitments to DBE participation during contract performance and provided help to M/W/DBEs when requested.

The Airport did stick up for me.... The Diversity Office is very helpful, they will come to you, they will help you fill out your paperwork.

[MSCAA staff member] is great.

The Diversity Department, their compliance department, has been very helpful and very good.

I just wanted to talk about how good the Airport has been to us..... We did a bunch of work at the Airport and we had trouble with one of the companies living up to the contract, kind of, I guess you could say. And the Airport made sure that we were getting paid.

When a prime consultant was holding my last invoice because of personal animosity, [name] stood up for me and made sure I was paid. And it was around \$80,000.

I kind of built a relationship with [MSCAA's construction manager]. They kind of helped out and smooth things out. So, I think that solved the problem.

I have found the Diversity Office to be extremely helpful, very responsive, very patient, love those guys, everybody I deal with has been wonderful.

A few M/W/DBEs found that bringing their issues to the attention of the Airport did not ameliorate the problem.

They told me that I was a sub and I had to go on to the general contractor. And whatever the general said, they really didn't have a contract with me. [They told me to] go back to who I'm having the problem with.

When you're having a problem, you don't have any place to go because [the DBE office is] a yes group. They're going to definitely side with the Airport Authority in every situation. And I had quite a few.... They weren't any help at all.

e. Mentor-Protégé Relationships

There was interest and support from M/W/DBEs for the concept of an Airport-approved and administered Mentor-Protégé initiative, in conformance with the requirements of 49 C.F.R. Appendix D.

That would be very beneficial, I think, because there's just a whole host of other issues and management issues and owner issues that you have to deal with as a prime that you done as a sub. So, I think that would absolutely be the best route, at least for me to get into positioning to become a prime eventually.

It would be very useful for the smaller contractors, but it's kind of like this: people that sign up need to show up.

It's always good to have a mentor program.

I think that would be great.

It can help you to know what your rights are, what you are capable of.

That would be a good idea, because my experience was when I first started, I didn't know anything about certified payrolls, how to do it or anything, and it was a company here [at MSCAA] and the guy liked my attitude. So, he's like, "I'm going to bring you in and let my secretary train you to submit your pay outs and how to do certified payroll." And I went for three weeks, and then it was good for me. She taught me how to do everything, and he didn't have to do it, but he did it.

Several large airport prime firms agreed.

I honestly had met a [DBE] that had a mentor-protégé [relationship] and he was telling me how great it was, how much he was learning. They got him some computers, helped him get his office equipment, got jobs, and he was learning. I mean I think that's really a big help. Somebody's got to help some of these people. They don't have the money, they don't really have the education, they need the help to get up that first hurdle. And they're not getting [that help] so they just fall away. Or they're stagnant.

The only way to learn airport work, is to do airport work.... No matter how much training you've got, until you've done it you don't really realize what you're getting yourself into.

I can bring 100 people into this room, that are great at what they do. In all 16 of the construction divisions. Very skilled, very qualified to do the work. They're doing a great job. Gainfully employed, real solid work ethic. It's out there, it's happened. It's just not happening to scale. We have to figure out how to scale it.

Someone starting out to be able to work on a project for us just can be difficult because they just don't have the capacity to do something of the size that we need to do.

And so that would be difficult unless they were a mentor protégé of a large firm.

One representative of a large consulting firm cautioned that not all mentor-protégé relationships are successful.

It's really hard to find somebody who does the civil engineering side of airfield work who understands it enough to be able to do it. We have tried to take a couple of firms under our wing and bring them along and teach them, but it hasn't worked out.... I would say [the DBE] lost interest. It wasn't something that they wanted to put a lot of effort into. They were found to help us out on that project, but they really didn't want to learn the ropes of how you do work at airports and the requirements that are associated with that. So, we use them occasionally for some stuff, but not much. The other firm had some pretty severe management problems and they've gone out of business and reconstituted themselves in two or three different formats over the last several years. And we had some pretty bad experiences with them, so we just don't use them anymore.

3. Airport Concessionaire Disadvantaged Business Enterprise Program

Overall, ACDBEs reported good experiences working at the Airport.

The [Diversity] Department, [name] and his folks, they're good at communicating, but you got to let them know, this is who I am, this is what I'm interested in.

They're your champions, [name] will fight for you and so will [name].

Interviewees not already awarded concession opportunities sought technical assistance to become better positioned to obtain contracts.

It's a lot of that fear failure too, is when you get out there and you say, "Yeah, this may be a lot of money, but if I go out there and can't produce, then this'll definitely take me down. So, you know what, I don't even want to step out into it. I'll just still play in this small lane here. And I think that's the mentality that a lot of us have in Shelby County is that fear of stepping out of not knowing if you're going to be successful.

I'm always ready to step up.

I think if you say, "Okay, are you interested in becoming a concessionaire, but not quite ready yet?" Here I am with the marketing thing. So, we're going to have a whole series of seminars and courses. And first one is, okay, what does it mean to be a concessionaire here at the airport? What is it that we expect from you? What are the requirements that we need? What do you need to have in place? And then if a lot of people don't know a lot about insurance and bonding and they have something about that. But what you're doing is you're actually preparing people, for that next step.

G. Conclusion

The interviews strongly suggest that MSCAA implements the DBE Program and ACDBE Program well within the parameters of 49 C.F.R. Part 26 and Part 23. It also administers its programs for non-FAA contracts within national best practices and the constitutional constraints of strict scrutiny. Overall, the programs were reported to be helpful and properly implemented. Certified firms have received work as a direct result of contract goals, and most stated that without the implementation of contract goals, their opportunities would be greatly diminished or non-existent. While prime vendors found it challenging to meet the goals, especially given the complexity and schedules for airport projects, most were able to include minority and women businesses on their contracts. The ACDBE program was generally lauded for creating opportunities for small firms.

III. UTILIZATION, AVAILABILITY AND DISPARITY ANALYSES FOR THE MEMPHIS-SHELBY COUNTY AIRPORT AUTHORITY

A. Contract Data Overview

We analyzed contract data for federal fiscal years 2012 through 2019 for the Memphis-Shelby County Airport Authority's ("MSCAA, Authority or Airport") Federal Aviation Administration ("FAA") contracts, non-FAA funded contracts, non-car rental concessions contracts and car rental concessions contracts.

To conduct this analysis, we constructed all the fields necessary for our analysis. We reviewed all of the non-concession contract data files provided to us by the Airport for contracts \$50,000 or greater. We examined all concession contracts, without regard to size.⁴⁰ Because of the relatively small number of contracts, we did not have to construct a sample. The resulting Final Contract Data Files ("FCDFs") for analysis contained four subsets: FAA funded contracts; non-FAA funded contracts; non-car rental concessions contracts; and car rental concessions contracts.

- The *FAA funded contracts* subset contained 89 contracts, with a total amount paid of \$336,629,066.78; subcontractors received 191 contracts. Prime contractors received \$215,643,401.22 net of the total amount; subcontractors received \$120,985,665.56 of the total amount.
- The *non-FAA funded contracts* subset contained 695 contracts, with a total amount paid of \$255,365,998.10; subcontractors received 268 contracts. Prime contractors received \$173,085,500.33 net of the total amount; subcontractors received \$82,280,497.77 of the total amount.

40. While the Authority uses an electronic data collection system for some contracts, not all procurements are entered into this system. Many files that were entered lacked information necessary for the Study, such as industry type; zip codes; North American Industry Classification System ("NAICS") codes of prime contractors and subcontractors at the contract level; non-DBE and ACDBE subcontractor information, including payments/gross receipts, race, gender; etc. Even for contracts for which these data points were entered, information on funding source and contract work categories was mostly missing. Airport staff worked diligently to manually fill in these data gaps. Once we received this information from MSCAA, we contacted prime vendors with spreadsheets about their specific contracts to verify our records and provide the subcontractor data.

- The *non-car rental concessions contracts* subset contained 127 contracts with a net gross receipts amount of \$154,549,618. Joint venture partnerships received 62 contracts representing gross receipts of \$51,600,020; Single concessionaires received 62 contracts representing gross receipts of \$89,134,154; and subtenants received two contracts representing \$13,815,444.
- The *car rental concessions contracts* subset contained 19 contracts, with a gross receipts amount of \$489,898,533. Of these, concessionaires received 10 contracts representing gross receipts of \$485,854,828; subconcessionaires received nine contracts representing gross receipts of \$4,043,705.

The FCDFs were used to determine the geographic and product markets for the analyses. They were also used to estimate the utilization of M/W/DBEs and ACDBEs on MSCAA's contracts. We then used the FCDFs, in combination with other databases (as described below), to calculate M/W/DBE and ACDBE unweighted and weighted availability in the Authority's marketplace by funding source and contract type.

For purposes of goal setting, the availability estimates are weighted by MSCAA's actual spending patterns, as determined by the NAICS codes it utilized. Weighting availability results in a more accurate picture of which firms are available to participate in the agency's opportunities. For example, high availability in a NAICS code in which minimal dollars are spent would give the impression that there are more M/W/DBEs that can perform work on agency contracts than are actually ready, willing and able. Conversely, a low availability in a high dollar scope would understate the potential dollars that could be spent with M/W/DBEs.⁴¹

B. Utilization and Availability Analysis for FAA Funded Contracts

1. The Product and Geographic Markets for MSCAA's FAA Funded Contracts

As discussed in the Legal Appendix, a defensible disparity study must determine empirically the industries that comprise MSCAA's product or industry market. The accepted approach is to analyze those detailed industries, as defined by six-digit North American Industry Classification System ("NAICS") codes⁴² that make up at least 75% of the prime contract and subcontract pay-

41. This is why the USDOT "Tips for Goal Setting" urges recipients to weight their headcount of firms by dollars spent. See <https://www.transportation.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise>.

ments for the study period.⁴³ In this report, we begin by identifying all of the NAICS codes in the Airport’s Final Contract Data File (Table 3-1) and proceed to identify the Airport’s geographic market (Table 3-2). The step of identifying the geographic market imposes a spatial constraint on this data set. Table 3-3 presents the resulting data (*i.e.*, the original data constrained to the Airport’s geographic market).

a. MSCAA’s Product Market for FAA Funded Contracts

We began our analysis with the 40 NAICS codes contained in the Airport’s FCDF for FAA funded contracts. Table 3-1 presents data on these codes.

Table 3-1: Industry Percentage Distribution of FAA Funded Contracts by Dollars

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
236220	Commercial and Institutional Building Construction	28.9%	28.9%
237310	Highway, Street, and Bridge Construction	22.1%	51.1%
541330	Engineering Services	12.0%	63.1%
238210	Electrical Contractors and Other Wiring Installation Contractors	11.3%	74.4%
561612	Security Guards and Patrol Services	3.8%	78.2%
238120	Structural Steel and Precast Concrete Contractors	2.6%	80.7%
238390	Other Building Finishing Contractors	1.8%	82.5%
238910	Site Preparation Contractors	1.6%	84.2%
541310	Architectural Services	1.5%	85.7%
541380	Testing Laboratories	1.5%	87.2%
237990	Other Heavy and Civil Engineering Construction	1.2%	88.4%
238220	Plumbing, Heating, and Air-Conditioning Contractors	1.2%	89.7%
484220	Specialized Freight (except Used Goods) Trucking, Local	1.1%	90.8%
238290	Other Building Equipment Contractors	1.1%	91.9%
541370	Surveying and Mapping (except Geophysical) Services	0.7%	92.6%

42. www.census.gov/eos/www/naics.

43. National Academies of Sciences, Engineering, and Medicine 2010, *Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/14346> (“National Disparity Study Guidelines”).

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.7%	93.3%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	0.6%	94.0%
238990	All Other Specialty Trade Contractors	0.6%	94.6%
238110	Poured Concrete Foundation and Structure Contractors	0.6%	95.1%
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	0.5%	95.6%
238160	Roofing Contractors	0.5%	96.1%
238140	Masonry Contractors	0.4%	96.5%
238130	Framing Contractors	0.4%	96.9%
541360	Geophysical Surveying and Mapping Services	0.3%	97.2%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	0.3%	97.5%
541611	Administrative Management and General Management Consulting Services	0.3%	97.8%
541890	Other Services Related to Advertising	0.2%	98.0%
541511	Custom Computer Programming Services	0.2%	98.2%
561730	Landscaping Services	0.2%	98.4%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	0.2%	98.6%
541612	Human Resources Consulting Services	0.2%	98.8%
441110	New Car Dealers	0.1%	98.9%
541990	All Other Professional, Scientific, and Technical Services	0.1%	99.1%
236210	Industrial Building Construction	0.1%	99.2%
561990	All Other Support Services	0.1%	99.3%
541810	Advertising Agencies	0.1%	99.4%
423390	Other Construction Material Merchant Wholesalers	0.1%	99.5%
221320	Sewage Treatment Facilities	0.1%	99.5%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	0.1%	99.6%
541430	Graphic Design Services	0.1%	99.7%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	0.1%	99.7%
541620	Environmental Consulting Services	0.1%	99.8%
541110	Offices of Lawyers	0.1%	99.9%
238320	Painting and Wall Covering Contractors	0.1%	99.9%
518210	Data Processing, Hosting, and Related Services	0.03%	99.9%
237110	Water and Sewer Line and Related Structures Construction	0.02%	99.96%
423620	Household Appliances, Electric Housewares, and Consumer Electronics Merchant Wholesalers	0.02%	99.98%
532412	Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing	0.01%	99.99%
722310	Food Service Contractors	0.01%	99.998%
541340	Drafting Services	0.002%	100.00%
TOTAL			100.0%

Source: CHA analysis of MSCAA's Data.

b. MSCAA's Geographic Market for FAA Funded Contracts

The DBE program regulations and the federal courts require that a local recipient narrowly tailor its race- and gender-conscious contracting program elements to its geographic market area.⁴⁴ This element of the analysis must be empirically established.⁴⁵ To determine the relevant geographic market area, we applied the standard of identifying the firm locations that account for at least 75% of contract and subcontract dollar payments in the contract data file.⁴⁶ Location was determined by ZIP code and aggregated

44. 49 C.F.R. §26.45(c); <https://www.transportation.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise> ("D. Explain How You Determined Your Local Market Area.... your local market area is the area in which the substantial majority of the contractors and subcontractors with which you do business are located and the area in which you spend the substantial majority of your contracting dollars."); *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 national evidence that supported the USDOT DBE program).

45. *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").

into counties as the geographic unit. In addition to capturing at least 75% of the Airport's spending, we also examined the data through the lens of geographic contiguity. As indicated in Table 3-2, Shelby County accounted for 75.9% of the Airport spending; however, when we examined the counties surrounding Shelby County (those that comprise the Memphis metro area), only DeSoto and Marshall Counties in Mississippi, and Tipton County in Tennessee, and Crittenden County in Arkansas contained firms that received FAA funded contracts from the Airport. Consequently, those five counties were used as the geographic market for the analysis of MSCAA's FAA funded contracts.

Table 3-2 lists the five counties which capture 77.8% of the FCDF dollars and each county's share of FCDF dollars.

**Table 3-2: Distribution of Contracts in MSCAA's Geographical Market
FAA Funded Contracts**

County	Pct Contract Dollars
Shelby County, TN	75.9%
DeSoto County, MS	1.5%
Marshall County, MS	0.3%
Crittenden County, AR	0.1%
Tipton County, TN	0.03%

Source: CHA analysis of MSCAA's Data.

2. The Utilization of DBEs on MSCAA's FAA Funded Contracts

Having determined the Authority's product and geographic market area (and, therefore, the agency's *constrained* product market), the next step was to determine the dollar value of the Authority's utilization of M/W/DBEs⁴⁷ as measured by payments to prime firms and subcontractors and disaggregated by race and gender.

Limiting the unconstrained product market to the boundaries of those five counties reduced the number of NAICS codes further analyzed in this Study from 50 to 32.

Tables 3-3 through 3-5 present data on the utilization of contract dollars in the constrained product market. (Note that the contract dollar shares in Table 3-3

46. *National Disparity Study Guidelines*, p. 49.

47. We use the terms "M/W/DBEs" throughout this Report to include firms owned by racial or ethnic minorities and White females that are not certified as M/W/DBEs by an agency recognized by the MSCAA. This casts the "broad net" required by the courts, as discussed in the Legal Appendix.

are equivalent to the weight of spending in each NAICS code. These data were used to calculate weighted availability⁴⁸ from unweighted availability, as discussed below).

Table 3-3: NAICS Code Distribution of MSCAA's FAA Funded Contract Dollars

NAICS	NAICS Code Description	Contract Dollars	Pct Contract Dollars
236220	Commercial and Institutional Building Construction	\$85,290,656.00	32.6%
237310	Highway, Street, and Bridge Construction	\$69,507,168.00	26.5%
238210	Electrical Contractors and Other Wiring Installation Contractors	\$29,649,964.00	11.3%
541330	Engineering Services	\$26,557,160.00	10.1%
561612	Security Guards and Patrol Services	\$9,298,290.00	3.6%
541310	Architectural Services	\$5,104,687.50	1.9%
237990	Other Heavy and Civil Engineering Construction	\$4,194,524.50	1.6%
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$4,143,782.75	1.6%
541380	Testing Laboratories	\$3,937,740.50	1.5%
238910	Site Preparation Contractors	\$3,756,046.00	1.4%
484220	Specialized Freight (except Used Goods) Trucking, Local	\$3,676,015.00	1.4%
238290	Other Building Equipment Contractors	\$3,607,710.00	1.4%
238390	Other Building Finishing Contractors	\$2,337,743.75	0.9%
541370	Surveying and Mapping (except Geophysical) Services	\$1,931,762.12	0.7%
238140	Masonry Contractors	\$1,446,524.75	0.6%
238130	Framing Contractors	\$1,367,759.00	0.5%
238110	Poured Concrete Foundation and Structure Contractors	\$1,350,102.00	0.5%
238160	Roofing Contractors	\$817,094.75	0.3%

48. See Tips for Goal Setting in the Disadvantaged Business Enterprise Program ("F. Wherever Possible, Use Weighting. Weighting can help ensure that your Step One Base Figure is as accurate as possible. While weighting is not required by the rule, it will make your goal calculation more accurate. For instance, if 90% of your contract dollars will be spent on heavy construction and 10% on trucking, you should weight your calculation of the relative availability of firms by the same percentages.") (emphasis in the original), <https://www.transportation.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise>.

NAICS	NAICS Code Description	Contract Dollars	Pct Contract Dollars
561730	Landscaping Services	\$604,374.12	0.2%
238990	All Other Specialty Trade Contractors	\$509,067.53	0.2%
441110	New Car Dealers	\$493,790.00	0.2%
236210	Industrial Building Construction	\$488,690.00	0.2%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	\$443,659.00	0.2%
238120	Structural Steel and Precast Concrete Contractors	\$360,180.00	0.1%
541810	Advertising Agencies	\$291,901.84	0.1%
238320	Painting and Wall Covering Contractors	\$170,928.00	0.1%
541620	Environmental Consulting Services	\$150,261.83	0.1%
541430	Graphic Design Services	\$146,050.00	0.1%
237110	Water and Sewer Line and Related Structures Construction	\$70,088.00	0.03%
561990	All Other Support Services	\$64,452.16	0.02%
722310	Food Service Contractors	\$30,000.00	0.01%
541340	Drafting Services	\$8,000.00	0.003%
Total		\$261,806,173.10	100.0%

Source: CHA analysis of MSCAA's Data.

**Table 3-4a: Distribution of MSCAA FAA Funded Contract Dollars by Race and Gender
(dollars)**

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
236210	Industrial Building Construction	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
236220	Commercial and Institutional Building Construction	\$6,386,768.38	\$0.00	\$0.00	\$0.00	\$2,803,783.28
237110	Water and Sewer Line and Related Structures Construction	\$0.00	\$44,738.00	\$0.00	\$0.00	\$0.00
237310	Highway, Street, and Bridge Construction	\$1,120,508.63	\$5,304,215.00	\$0.00	\$0.00	\$5,406,039.51

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NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
237990	Other Heavy and Civil Engineering Construction	\$1,450,386.12	\$0.00	\$2,744,138.50	\$0.00	\$0.00
238110	Poured Concrete Foundation and Structure Contractors	\$1,331,005.00	\$0.00	\$0.00	\$0.00	\$11,434.00
238120	Structural Steel and Precast Concrete Contractors	\$360,180.00	\$0.00	\$0.00	\$0.00	\$0.00
238130	Framing Contractors	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
238140	Masonry Contractors	\$124,316.00	\$0.00	\$0.00	\$0.00	\$0.00
238160	Roofing Contractors	\$817,094.75	\$0.00	\$0.00	\$0.00	\$0.00
238210	Electrical Contractors and Other Wiring Installation Contractors	\$74,100.00	\$3,323,802.00	\$0.00	\$0.00	\$14,347,229.09
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$404,718.00	\$0.00	\$0.00	\$0.00	\$0.00
238290	Other Building Equipment Contractors	\$0.00	\$0.00	\$0.00	\$0.00	\$3,132,997.00
238320	Painting and Wall Covering Contractors	\$170,168.00	\$0.00	\$0.00	\$0.00	\$0.00
238390	Other Building Finishing Contractors	\$0.00	\$0.00	\$0.00	\$0.00	\$2,275,331.00
238910	Site Preparation Contractors	\$160,560.00	\$0.00	\$0.00	\$0.00	\$62,218.00
238990	All Other Specialty Trade Contractors	\$273,265.89	\$0.00	\$0.00	\$0.00	\$67,206.15
423510	Metal Service Centers and Other Metal Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
441110	New Car Dealers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
484220	Specialized Freight (except Used Goods) Trucking, Local	\$0.00	\$0.00	\$0.00	\$0.00	\$3,676,015.00
541310	Architectural Services	\$1,740,402.95	\$0.00	\$0.00	\$0.00	\$97,706.03

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
541330	Engineering Services	\$4,172,204.31	\$0.00	\$2,164,986.27	\$0.00	\$593,186.25
541340	Drafting Services	\$0.00	\$0.00	\$0.00	\$0.00	\$8,000.00
541370	Surveying and Mapping (except Geophysical) Services	\$19,979.78	\$0.00	\$1,911,782.39	\$0.00	\$0.00
541380	Testing Laboratories	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
541430	Graphic Design Services	\$0.00	\$0.00	\$0.00	\$0.00	\$146,050.00
541620	Environmental Consulting Services	\$0.00	\$0.00	\$0.00	\$0.00	\$5,850.00
541810	Advertising Agencies	\$126,975.37	\$0.00	\$0.00	\$0.00	\$78,772.50
561612	Security Guards and Patrol Services	\$9,298,290.25	\$0.00	\$0.00	\$0.00	\$0.00
561730	Landscaping Services	\$0.00	\$0.00	\$0.00	\$0.00	\$6,277.92
561990	All Other Support Services	\$0.00	\$0.00	\$0.00	\$0.00	\$64,452.16
722310	Food Service Contractors	\$30,000.00	\$0.00	\$0.00	\$0.00	\$0.00
Total		\$28,060,923.43	\$8,672,755.00	\$6,820,907.15	\$0.00	\$32,782,547.89

Source: CHA analysis of MSCAA's Data.

Table 3-4b: Distribution of MSCAA FAA Funded Contract Dollars by Race and Gender (cont.)
(dollars)

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
236210	Industrial Building Construction	\$0.00	\$488,690.00	\$488,690.00
236220	Commercial and Institutional Building Construction	\$9,190,551.66	\$76,100,106.35	\$85,290,658.01
237110	Water and Sewer Line and Related Structures Construction	\$44,738.00	\$25,350.00	\$70,088.00
237310	Highway, Street, and Bridge Construction	\$11,830,763.14	\$57,676,405.54	\$69,507,168.69
237990	Other Heavy and Civil Engineering Construction	\$4,194,524.62	\$0.00	\$4,194,524.62
238110	Poured Concrete Foundation and Structure Contractors	\$1,342,439.00	\$7,663.00	\$1,350,102.00

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
238120	Structural Steel and Precast Concrete Contractors	\$360,180.00	\$0.00	\$360,180.00
238130	Framing Contractors	\$0.00	\$1,367,759.00	\$1,367,759.00
238140	Masonry Contractors	\$124,316.00	\$1,322,208.75	\$1,446,524.75
238160	Roofing Contractors	\$817,094.75	\$0.00	\$817,094.75
238210	Electrical Contractors and Other Wiring Installation Contractors	\$17,745,131.09	\$11,904,833.18	\$29,649,964.27
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$404,718.00	\$3,739,064.78	\$4,143,782.78
238290	Other Building Equipment Contractors	\$3,132,997.00	\$474,713.06	\$3,607,710.06
238320	Painting and Wall Covering Contractors	\$170,168.00	\$760.00	\$170,928.00
238390	Other Building Finishing Contractors	\$2,275,331.00	\$62,412.73	\$2,337,743.73
238910	Site Preparation Contractors	\$222,778.00	\$3,533,268.01	\$3,756,046.01
238990	All Other Specialty Trade Contractors	\$340,472.04	\$168,595.50	\$509,067.54
423510	Metal Service Centers and Other Metal Merchant Wholesalers	\$0.00	\$443,659.00	\$443,659.00
441110	New Car Dealers	\$0.00	\$493,789.98	\$493,789.98
484220	Specialized Freight (except Used Goods) Trucking, Local	\$3,676,015.00	\$0.00	\$3,676,015.00
541310	Architectural Services	\$1,838,108.98	\$3,266,578.50	\$5,104,687.48
541330	Engineering Services	\$6,930,376.83	\$19,626,783.97	\$26,557,160.80
541340	Drafting Services	\$8,000.00	\$0.00	\$8,000.00
541370	Surveying and Mapping (except Geophysical) Services	\$1,931,762.17	\$0.00	\$1,931,762.17
541380	Testing Laboratories	\$0.00	\$3,937,740.62	\$3,937,740.62
541430	Graphic Design Services	\$146,050.00	\$0.00	\$146,050.00
541620	Environmental Consulting Services	\$5,850.00	\$144,411.83	\$150,261.83
541810	Advertising Agencies	\$205,747.87	\$86,153.98	\$291,901.84
561612	Security Guards and Patrol Services	\$9,298,290.25	\$0.00	\$9,298,290.25

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
561730	Landscaping Services	\$6,277.92	\$598,096.19	\$604,374.11
561990	All Other Support Services	\$64,452.16	\$0.00	\$64,452.16
722310	Food Service Contractors	\$30,000.00	\$0.00	\$30,000.00
Total		\$76,337,133.47	\$185,469,043.97	\$261,806,177.45^a

a. This total is \$4.35 greater than the total in Table 3-3. The difference is because of the way in which different statistical programs processed the data at two different times. The \$4.35 presents 0.000002% of the total.

Source: CHA analysis of MSCAA's Data.

**Table 3-5a: Distribution of MSCAA FAA Funded Contract Dollars by Race and Gender
(share of dollars)**

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
236210	Industrial Building Construction	0.0%	0.0%	0.0%	0.0%	0.0%
236220	Commercial and Institutional Building Construction	7.5%	0.0%	0.0%	0.0%	3.3%
237110	Water and Sewer Line and Related Structures Construction	0.0%	63.8%	0.0%	0.0%	0.0%
237310	Highway, Street, and Bridge Construction	1.6%	7.6%	0.0%	0.0%	7.8%
237990	Other Heavy and Civil Engineering Construction	34.6%	0.0%	65.4%	0.0%	0.0%
238110	Poured Concrete Foundation and Structure Contractors	98.6%	0.0%	0.0%	0.0%	0.8%
238120	Structural Steel and Precast Concrete Contractors	100.0%	0.0%	0.0%	0.0%	0.0%
238130	Framing Contractors	0.0%	0.0%	0.0%	0.0%	0.0%
238140	Masonry Contractors	8.6%	0.0%	0.0%	0.0%	0.0%
238160	Roofing Contractors	100.0%	0.0%	0.0%	0.0%	0.0%
238210	Electrical Contractors and Other Wiring Installation Contractors	0.2%	11.2%	0.0%	0.0%	48.4%
238220	Plumbing, Heating, and Air-Conditioning Contractors	9.8%	0.0%	0.0%	0.0%	0.0%
238290	Other Building Equipment Contractors	0.0%	0.0%	0.0%	0.0%	86.8%

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NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
238320	Painting and Wall Covering Contractors	99.6%	0.0%	0.0%	0.0%	0.0%
238390	Other Building Finishing Contractors	0.0%	0.0%	0.0%	0.0%	97.3%
238910	Site Preparation Contractors	4.3%	0.0%	0.0%	0.0%	1.7%
238990	All Other Specialty Trade Contractors	53.7%	0.0%	0.0%	0.0%	13.2%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
441110	New Car Dealers	0.0%	0.0%	0.0%	0.0%	0.0%
484220	Specialized Freight (except Used Goods) Trucking, Local	0.0%	0.0%	0.0%	0.0%	100.0%
541310	Architectural Services	34.1%	0.0%	0.0%	0.0%	1.9%
541330	Engineering Services	15.7%	0.0%	8.2%	0.0%	2.2%
541340	Drafting Services	0.0%	0.0%	0.0%	0.0%	100.0%
541370	Surveying and Mapping (except Geophysical) Services	1.0%	0.0%	99.0%	0.0%	0.0%
541380	Testing Laboratories	0.0%	0.0%	0.0%	0.0%	0.0%
541430	Graphic Design Services	0.0%	0.0%	0.0%	0.0%	100.0%
541620	Environmental Consulting Services	0.0%	0.0%	0.0%	0.0%	3.9%
541810	Advertising Agencies	43.5%	0.0%	0.0%	0.0%	27.0%
561612	Security Guards and Patrol Services	100.0%	0.0%	0.0%	0.0%	0.0%
561730	Landscaping Services	0.0%	0.0%	0.0%	0.0%	1.0%
561990	All Other Support Services	0.0%	0.0%	0.0%	0.0%	100.0%
722310	Food Service Contractors	100.0%	0.0%	0.0%	0.0%	0.0%
Total		10.7%	3.3%	2.6%	0.0%	12.5%

Source: CHA analysis of MSCAA's Data.

Table 3-5b: Distribution of MSCAA FAA Funded Contract Dollars by Race and Gender (cont.)
(share of dollars)

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
236210	Industrial Building Construction	0.0%	100.0%	100.0%
236220	Commercial and Institutional Building Construction	10.8%	89.2%	100.0%
237110	Water and Sewer Line and Related Structures Construction	63.8%	36.2%	100.0%
237310	Highway, Street, and Bridge Construction	17.0%	83.0%	100.0%
237990	Other Heavy and Civil Engineering Construction	100.0%	0.0%	100.0%
238110	Poured Concrete Foundation and Structure Contractors	99.4%	0.6%	100.0%
238120	Structural Steel and Precast Concrete Contractors	100.0%	0.0%	100.0%
238130	Framing Contractors	0.0%	100.0%	100.0%
238140	Masonry Contractors	8.6%	91.4%	100.0%
238160	Roofing Contractors	100.0%	0.0%	100.0%
238210	Electrical Contractors and Other Wiring Installation Contractors	59.8%	40.2%	100.0%
238220	Plumbing, Heating, and Air-Conditioning Contractors	9.8%	90.2%	100.0%
238290	Other Building Equipment Contractors	86.8%	13.2%	100.0%
238320	Painting and Wall Covering Contractors	99.6%	0.4%	100.0%
238390	Other Building Finishing Contractors	97.3%	2.7%	100.0%
238910	Site Preparation Contractors	5.9%	94.1%	100.0%
238990	All Other Specialty Trade Contractors	66.9%	33.1%	100.0%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.0%	100.0%	100.0%
441110	New Car Dealers	0.0%	100.0%	100.0%
484220	Specialized Freight (except Used Goods) Trucking, Local	100.0%	0.0%	100.0%
541310	Architectural Services	36.0%	64.0%	100.0%

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
541330	Engineering Services	26.1%	73.9%	100.0%
541340	Drafting Services	100.0%	0.0%	100.0%
541370	Surveying and Mapping (except Geophysical) Services	100.0%	0.0%	100.0%
541380	Testing Laboratories	0.0%	100.0%	100.0%
541430	Graphic Design Services	100.0%	0.0%	100.0%
541620	Environmental Consulting Services	3.9%	96.1%	100.0%
541810	Advertising Agencies	70.5%	29.5%	100.0%
561612	Security Guards and Patrol Services	100.0%	0.0%	100.0%
561730	Landscaping Services	1.0%	99.0%	100.0%
561990	All Other Support Services	100.0%	0.0%	100.0%
722310	Food Service Contractors	100.0%	0.0%	100.0%
Total		29.2%	70.8%	100.0%

Source: CHA analysis of MSCAA's Data.

3. The Availability of DBEs in MSCAA's Constrained Product Market for FAA Funded Contracts

Estimates of the availability of M/W/DBEs in MSCAA's market area are a critical component of the analysis of possible barriers to equal opportunities to participate in the agency's contracting activities. These availability estimates are compared to the utilization percentage of dollars received by M/W/DBEs to examine whether minority- and woman-owned firms are at parity. Availability estimates are also crucial for the Authority to set narrowly tailored annual and contract goals on contracts covered by its DBE program.

We generally applied the "custom census" approach with refinements to estimating availability to all contracts by funding source and for concession contracts.⁴⁹ The courts and the National Model Disparity Study Guidelines⁵⁰ have recognized this methodology as superior to the other methods for at least four reasons:

- First, it provides an internally consistent and rigorous "apples to apples" comparison between firms in the availability numerator and those in the denominator. Other approaches often have different definitions for the

49. We repeated this process for non-FAA funded contracts and concession contracts, discussed later in this Chapter.

50. *National Disparity Study Guidelines*, pp.57-58.

firms in the numerator (e.g., certified M/W/DBEs or firms that respond to a survey) and the denominator (e.g., registered vendors or the Census Bureaus' County Business Patterns data).

- Second, by examining a comprehensive group of firms, it “casts a broader net” beyond those known to the agency. As recognized by the courts, this comports with the remedial nature of contracting affirmative action programs by seeking to bring in businesses that have historically been excluded. Our methodology 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 Airport's market areas that have not been able to access the agency's opportunities.
- Third, 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. Several 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 woman firms may be smaller, newer, and otherwise less competitive than non-M/W/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.⁵¹
- Fourth, it has been upheld by every court that has reviewed it, including most recently in the successful defense of the Illinois State Toll Highway's DBE program, for which we served as testifying experts.⁵²

Using this framework, CHA utilized three databases to estimate availability:

- The Final Contract Data File;
- The Master M/W/DBE Directory compiled by CHA; and
- The Dun & Bradstreet/Hoovers Database downloaded from the company's website.

The Master Directory combined the results of an exhaustive search for directories and other lists containing information about minority- and woman-owned

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

52. *Midwest Fence, Corp. v. U.S. Department of Transportation et al.*, 840 F.3d 932 (2016); see also *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715 (7th Cir. 2007), cert. denied, 137 S.Ct. 2292 (2017).

businesses. We were able to utilize the Tennessee Unified Certification Program for the Disadvantaged Business Enterprise Program and the Airport Concessions Disadvantaged Business Enterprise program; the Mississippi UCP; the Memphis Equal Business Opportunity Registry; and the Crittenden County, Arkansas Program Directory. After compiling the Master M/W/DBE Directory, we limited the firms we used in our analysis to those operating within the Authority's constrained product market. (We also utilized the Directory for our analysis of non-FAA funded contracts and concession contracts, discussed later in this Chapter).

We next developed a custom database from Hoovers, a Dun & Bradstreet company, for minority- and woman-owned firms and non-M/WBEs. Hoovers 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. We purchased the information from Hoovers for the firms in the NAICS codes located in the MSCAA's market area in order to form our custom Dun & Bradstreet/Hoovers Database. In the initial download, the data from Hoovers simply identified a firm as being minority-owned.⁵³ However, the company does keep detailed information on ethnicity (i.e., is the minority firm owner Black, Hispanic, Asian, or Native American). We obtained this additional information from Hoovers by special request.

The Hoovers database is the most comprehensive list of minority-owned and woman-owned businesses available. It is developed from the efforts of a national firm whose business is collecting business information. Hoovers builds its database from over 250 sources, including information from government sources and various associations, and its own efforts. Hoovers conducts an audit of the preliminary database prior to the public release of the data. That audit must result in a minimum of 94% accuracy. Once published, Hoovers has an established protocol to regularly refresh its data. This protocol involves updating any third-party lists that were used and contacting a selection of firms via Hoover's own call centers. We are confident this approach is robust and will withstand legal scrutiny.

We merged these three databases to form an accurate estimate of firm availability to the agency. Tables 3-6 through 3-8 present data on:

- The unweighted availability by race and gender, and by NAICS codes for contracts in the Airport's constrained product markets;
- The weights used to adjust the unweighted numbers⁵⁴; and

53. The variable is labeled: "Is Minority Owned" and values for the variable can be either "1" (for yes) or blank.

- The final estimates of the weighted averages of the individual six-digit NAICS code level availability estimates in the Airport's market area.

The weighted availability estimates can be used by the Airport to set its overall triennial DBE goal. The unweighted availability estimates can be used to set DBE contract goals.

Table 3-6a: Unweighted Availability for MSCAA's FAA Funded Contracts

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
236210	Industrial Building Construction	38.9%	2.8%	2.8%	0.0%	5.6%
236220	Commercial and Institutional Building Construction	18.1%	1.0%	0.3%	0.3%	8.0%
237110	Water and Sewer Line and Related Structures Construction	16.9%	3.1%	3.1%	1.5%	10.8%
237310	Highway, Street, and Bridge Construction	13.7%	2.6%	2.6%	0.9%	6.8%
237990	Other Heavy and Civil Engineering Construction	18.2%	0.0%	12.1%	0.0%	15.2%
238110	Poured Concrete Foundation and Structure Contractors	21.9%	0.8%	0.8%	0.0%	6.3%
238120	Structural Steel and Precast Concrete Contractors	28.6%	0.0%	0.0%	0.0%	7.1%
238130	Framing Contractors	6.2%	1.5%	0.0%	0.0%	2.3%
238140	Masonry Contractors	15.3%	1.2%	0.0%	0.0%	3.5%
238160	Roofing Contractors	8.3%	1.1%	0.0%	0.4%	4.9%
238210	Electrical Contractors and Other Wiring Installation Contractors	5.8%	0.9%	0.0%	0.9%	7.7%
238220	Plumbing, Heating, and Air-Conditioning Contractors	4.6%	0.3%	0.3%	0.3%	4.3%
238290	Other Building Equipment Contractors	9.1%	0.0%	0.0%	0.0%	18.2%
238320	Painting and Wall Covering Contractors	8.3%	0.8%	0.0%	0.3%	1.4%
238390	Other Building Finishing Contractors	13.7%	0.0%	0.0%	0.0%	11.8%
238910	Site Preparation Contractors	27.0%	0.9%	2.6%	0.9%	9.6%

54. These weights are equivalent to the share of contract dollars presented in the previous section.

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
238990	All Other Specialty Trade Contractors	5.6%	0.2%	0.2%	0.2%	4.4%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	7.0%	0.0%	0.0%	2.3%	1.9%
441110	New Car Dealers	0.3%	0.0%	0.0%	0.0%	2.7%
484220	Specialized Freight (except Used Goods) Trucking, Local	25.0%	0.0%	1.9%	0.0%	19.2%
541310	Architectural Services	7.2%	0.0%	2.4%	0.0%	9.6%
541330	Engineering Services	8.2%	0.3%	5.4%	0.3%	8.2%
541340	Drafting Services	41.0%	0.0%	13.5%	0.0%	27.6%
541370	Surveying and Mapping (except Geophysical) Services	11.6%	2.3%	7.0%	0.0%	2.3%
541380	Testing Laboratories	7.7%	0.0%	0.0%	0.0%	1.5%
541430	Graphic Design Services	9.1%	0.6%	0.0%	0.0%	7.8%
541620	Environmental Consulting Services	39.4%	0.0%	4.8%	0.0%	21.3%
541810	Advertising Agencies	6.3%	0.0%	0.0%	0.0%	15.3%
561612	Security Guards and Patrol Services	25.6%	0.5%	0.0%	0.0%	5.9%
561730	Landscaping Services	11.8%	0.2%	0.0%	0.2%	2.7%
561990	All Other Support Services	3.7%	0.2%	0.2%	0.0%	3.0%
722310	Food Service Contractors	45.1%	0.0%	0.1%	0.0%	1.9%
Total		12.5%	0.7%	0.9%	0.3%	5.5%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

Table 3-6b: Unweighted Availability for MSCAA's FAA Funded Contracts

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
236210	Industrial Building Construction	50.0%	50.0%	100.0%
236220	Commercial and Institutional Building Construction	27.9%	72.1%	100.0%
237110	Water and Sewer Line and Related Structures Construction	35.4%	64.6%	100.0%

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
237310	Highway, Street, and Bridge Construction	26.5%	73.5%	100.0%
237990	Other Heavy and Civil Engineering Construction	45.5%	54.5%	100.0%
238110	Poured Concrete Foundation and Structure Contractors	29.7%	70.3%	100.0%
238120	Structural Steel and Precast Concrete Contractors	35.7%	64.3%	100.0%
238130	Framing Contractors	10.0%	90.0%	100.0%
238140	Masonry Contractors	20.0%	80.0%	100.0%
238160	Roofing Contractors	14.7%	85.3%	100.0%
238210	Electrical Contractors and Other Wiring Installation Contractors	15.3%	84.7%	100.0%
238220	Plumbing, Heating, and Air-Conditioning Contractors	9.9%	90.1%	100.0%
238290	Other Building Equipment Contractors	27.3%	72.7%	100.0%
238320	Painting and Wall Covering Contractors	10.7%	89.3%	100.0%
238390	Other Building Finishing Contractors	25.5%	74.5%	100.0%
238910	Site Preparation Contractors	40.9%	59.1%	100.0%
238990	All Other Specialty Trade Contractors	10.5%	89.5%	100.0%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	11.2%	88.8%	100.0%
441110	New Car Dealers	3.0%	97.0%	100.0%
484220	Specialized Freight (except Used Goods) Trucking, Local	46.2%	53.8%	100.0%
541310	Architectural Services	19.2%	80.8%	100.0%
541330	Engineering Services	22.5%	77.5%	100.0%
541340	Drafting Services	82.1%	17.9%	100.0%
541370	Surveying and Mapping (except Geophysical) Services	23.3%	76.7%	100.0%
541380	Testing Laboratories	9.2%	90.8%	100.0%
541430	Graphic Design Services	17.6%	82.4%	100.0%

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
541620	Environmental Consulting Services	65.4%	34.6%	100.0%
541810	Advertising Agencies	21.6%	78.4%	100.0%
561612	Security Guards and Patrol Services	32.0%	68.0%	100.0%
561730	Landscaping Services	15.0%	85.0%	100.0%
561990	All Other Support Services	7.1%	92.9%	100.0%
722310	Food Service Contractors	47.1%	52.9%	100.0%
Total		20.0%	80.0%	100.0%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

**Table 3-7: Share of MSCAA's Spending by NAICS Code
FAA Funded Contracts**

NAICS	NAICS Code Description	WEIGHT (Pct Share of Dollars)
236210	Industrial Building Construction	0.2%
236220	Commercial and Institutional Building Construction	32.6%
237110	Water and Sewer Line and Related Structures Construction	0.03%
237310	Highway, Street, and Bridge Construction	26.5%
237990	Other Heavy and Civil Engineering Construction	1.6%
238110	Poured Concrete Foundation and Structure Contractors	0.5%
238120	Structural Steel and Precast Concrete Contractors	0.1%
238130	Framing Contractors	0.5%
238140	Masonry Contractors	0.6%
238160	Roofing Contractors	0.3%
238210	Electrical Contractors and Other Wiring Installation Contractors	11.3%
238220	Plumbing, Heating, and Air-Conditioning Contractors	1.6%
238290	Other Building Equipment Contractors	1.4%
238320	Painting and Wall Covering Contractors	0.1%
238390	Other Building Finishing Contractors	0.9%
238910	Site Preparation Contractors	1.4%
238990	All Other Specialty Trade Contractors	0.2%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.2%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Dollars)
441110	New Car Dealers	0.2%
484220	Specialized Freight (except Used Goods) Trucking, Local	1.4%
541310	Architectural Services	1.9%
541330	Engineering Services	10.1%
541340	Drafting Services	0.003%
541370	Surveying and Mapping (except Geophysical) Services	0.7%
541380	Testing Laboratories	1.5%
541430	Graphic Design Services	0.1%
541620	Environmental Consulting Services	0.1%
541810	Advertising Agencies	0.1%
561612	Security Guards and Patrol Services	3.6%
561730	Landscaping Services	0.2%
561990	All Other Support Services	0.02%
722310	Food Service Contractors	0.01%
Total		100.0%

Source: CHA analysis of MSCAA's Data.

We next determined the aggregated availability of M/W/DBEs, weighted by the Authority's spending in its geographic and industry markets, to be 25.4% for the Authority's FAA funded contracts. Table 3-8 presents the total weighted availability data for each of the racial and gender categories. For further explanation of the role of unweighted and weighted availability and how these are calculated, please see Appendix G.

Table 3-8: Aggregated Weighted Availability for MSCAA's FAA Funded Contracts

Black	Hispanic	Asian	Native American	White Women	M/W/DBE	Non-M/W/DBE	Total
14.1%	1.2%	1.7%	0.5%	7.8%	25.4%	74.6%	100.0%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

Because Congress has already determined that discrimination operates in the market for federally funded transportation contracts, local governments located outside the Ninth Circuit Court of Appeals are not required to perform a disparity analysis on USDOT funded contracts.⁵⁵ Under 49 C.F.R. Part 26 and Part 23, all that is required for MSCAA to narrowly tailor its availability analysis.

C. Utilization, Availability and Disparity Analysis for non-FAA Funded Contracts

1. The Product and Geographic Markets for MSCAA's non-FAA Funded Contracts

As discussed for the FAA funded contracts, a defensible disparity study must determine empirically the industries that comprise MSCAA's product or industry market.⁵⁶ We again applied the accepted approach of analyzing the detailed industries, as defined by six-digit NAICS codes that make up at least 75% of the prime contract and subcontract payments for the study period.

We began our analysis with all of the NAICS codes contained in the Airport's FCDF. There were 148 NAICS codes.

Table 3-9: Industry Percentage Distribution of MSCAA's non-FAA Funded Contracts by Dollars

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
236220	Commercial and Institutional Building Construction	15.6%	15.6%
238210	Electrical Contractors and Other Wiring Installation Contractors	10.3%	25.9%
561720	Janitorial Services	8.3%	34.2%
237310	Highway, Street, and Bridge Construction	5.6%	39.8%
238910	Site Preparation Contractors	4.6%	44.4%
238220	Plumbing, Heating, and Air-Conditioning Contractors	4.1%	48.4%
488119	Other Airport Operations	3.6%	52.0%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	3.6%	55.6%
238390	Other Building Finishing Contractors	3.4%	59.0%
541330	Engineering Services	2.4%	61.4%

55. See GUIDANCE: Western States Paving Company Case Q&A, https://www.transportation.gov/sites/dot.gov/files/docs/Western_States_Paving_Company_Case_Questions_and_Answers.pdf (posted 1/12/06).

56. See *Tips for Goal Setting in the Disadvantaged Business Enterprise Program* ("D. Explain How You Determined Your Local Market Area. Remember, the local market area is not necessarily the same as the political jurisdiction in which you are geographically located. Instead, your local market area is the area in which the substantial majority of the contractors and subcontractors with which you do business are located and the area in which you spend the substantial majority of your contracting dollars."), <https://www.transportation.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise>.

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
541511	Custom Computer Programming Services	1.9%	63.3%
238290	Other Building Equipment Contractors	1.8%	65.1%
488490	Other Support Activities for Road Transportation	1.8%	66.9%
541310	Architectural Services	1.6%	68.5%
541611	Administrative Management and General Management Consulting Services	1.5%	70.0%
238990	All Other Specialty Trade Contractors	1.5%	71.5%
485310	Taxi Service	1.5%	72.9%
541820	Public Relations Agencies	1.4%	74.3%
238160	Roofing Contractors	1.4%	75.6%
541613	Marketing Consulting Services	1.2%	76.9%
441110	New Car Dealers	1.1%	78.0%
423830	Industrial Machinery and Equipment Merchant Wholesalers	1.1%	79.1%
238120	Structural Steel and Precast Concrete Contractors	1.1%	80.3%
561730	Landscaping Services	1.1%	81.3%
424690	Other Chemical and Allied Products Merchant Wholesalers	1.0%	82.3%
541110	Offices of Lawyers	0.8%	83.1%
524113	Direct Life Insurance Carriers	0.8%	83.9%
238150	Glass and Glazing Contractors	0.7%	84.6%
238310	Drywall and Insulation Contractors	0.7%	85.3%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	0.7%	86.0%
561621	Security Systems Services (except Locksmiths)	0.6%	86.6%
485999	All Other Transit and Ground Passenger Transportation	0.6%	87.2%
238140	Masonry Contractors	0.6%	87.7%
922130	Legal Counsel and Prosecution	0.5%	88.3%
236210	Industrial Building Construction	0.5%	88.8%
541620	Environmental Consulting Services	0.5%	89.3%
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	0.5%	89.8%
562119	Other Waste Collection	0.5%	90.3%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
541219	Other Accounting Services	0.5%	90.8%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.5%	91.3%
444190	Other Building Material Dealers	0.4%	91.7%
238330	Flooring Contractors	0.4%	92.0%
561612	Security Guards and Patrol Services	0.4%	92.4%
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	0.4%	92.7%
238320	Painting and Wall Covering Contractors	0.3%	93.1%
562111	Solid Waste Collection	0.3%	93.4%
541690	Other Scientific and Technical Consulting Services	0.3%	93.7%
561320	Temporary Help Services	0.3%	94.0%
237110	Water and Sewer Line and Related Structures Construction	0.3%	94.3%
621498	All Other Outpatient Care Centers	0.3%	94.6%
562910	Remediation Services	0.2%	94.8%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	0.2%	95.0%
812930	Parking Lots and Garages	0.2%	95.3%
484220	Specialized Freight (except Used Goods) Trucking, Local	0.2%	95.5%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	0.2%	95.7%
424130	Industrial and Personal Service Paper Merchant Wholesalers	0.2%	95.9%
523930	Investment Advice	0.2%	96.1%
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	0.2%	96.3%
541410	Interior Design Services	0.2%	96.5%
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers	0.2%	96.6%
541512	Computer Systems Design Services	0.2%	96.8%
423310	Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers	0.2%	97.0%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
541211	Offices of Certified Public Accountants	0.2%	97.1%
315210	Cut and Sew Apparel Contractors	0.1%	97.3%
561710	Exterminating and Pest Control Services	0.1%	97.4%
541380	Testing Laboratories	0.1%	97.5%
531210	Offices of Real Estate Agents and Brokers	0.1%	97.6%
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	0.1%	97.7%
541370	Surveying and Mapping (except Geophysical) Services	0.1%	97.8%
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	0.1%	97.9%
237990	Other Heavy and Civil Engineering Construction	0.1%	98.0%
812320	Drycleaning and Laundry Services (except Coin-Operated)	0.1%	98.1%
525110	Pension Funds	0.1%	98.2%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	0.1%	98.3%
238350	Finish Carpentry Contractors	0.1%	98.4%
541890	Other Services Related to Advertising	0.1%	98.5%
621910	Ambulance Services	0.1%	98.5%
423390	Other Construction Material Merchant Wholesalers	0.1%	98.6%
423840	Industrial Supplies Merchant Wholesalers	0.1%	98.7%
921130	Public Finance Activities	0.1%	98.7%
561920	Convention and Trade Show Organizers	0.1%	98.8%
237130	Power and Communication Line and Related Structures Construction	0.1%	98.9%
424340	Footwear Merchant Wholesalers	0.1%	98.9%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.1%	99.0%
523920	Portfolio Management	0.05%	99.0%
115112	Soil Preparation, Planting, and Cultivating	0.04%	99.1%
722320	Caterers	0.04%	99.1%
711130	Musical Groups and Artists	0.04%	99.2%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
423420	Office Equipment Merchant Wholesalers	0.04%	99.2%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	0.04%	99.2%
811111	General Automotive Repair	0.03%	99.3%
423210	Furniture Merchant Wholesalers	0.03%	99.3%
531320	Offices of Real Estate Appraisers	0.03%	99.3%
424430	Dairy Product (except Dried or Canned) Merchant Wholesalers	0.03%	99.4%
484210	Used Household and Office Goods Moving	0.03%	99.4%
323111	Commercial Printing (except Screen and Books)	0.03%	99.4%
332322	Sheet Metal Work Manufacturing	0.03%	99.5%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	0.03%	99.5%
339950	Sign Manufacturing	0.03%	99.5%
541420	Industrial Design Services	0.02%	99.6%
238340	Tile and Terrazzo Contractors	0.02%	99.6%
541910	Marketing Research and Public Opinion Polling	0.02%	99.6%
561990	All Other Support Services	0.02%	99.6%
561622	Locksmiths	0.02%	99.6%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	0.02%	99.7%
621999	All Other Miscellaneous Ambulatory Health Care Services	0.02%	99.7%
532420	Office Machinery and Equipment Rental and Leasing	0.02%	99.7%
425120	Wholesale Trade Agents and Brokers	0.02%	99.7%
423710	Hardware Merchant Wholesalers	0.02%	99.8%
485113	Bus and Other Motor Vehicle Transit Systems	0.02%	99.8%
524292	Third Party Administration of Insurance and Pension Funds	0.02%	99.8%
541810	Advertising Agencies	0.02%	99.8%
611420	Computer Training	0.01%	99.8%
532120	Truck, Utility Trailer, and RV (Recreational Vehicle) Rental and Leasing	0.01%	99.8%
424910	Farm Supplies Merchant Wholesalers	0.01%	99.8%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	0.01%	99.9%
423220	Home Furnishing Merchant Wholesalers	0.01%	99.9%
332321	Metal Window and Door Manufacturing	0.01%	99.9%
423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers	0.01%	99.9%
423130	Tire and Tube Merchant Wholesalers	0.01%	99.9%
561611	Investigation Services	0.01%	99.9%
611513	Apprenticeship Training	0.01%	99.9%
441310	Automotive Parts and Accessories Stores	0.01%	99.9%
611430	Professional and Management Development Training	0.01%	99.9%
423740	Refrigeration Equipment and Supplies Merchant Wholesalers	0.01%	99.9%
423330	Roofing, Siding, and Insulation Material Merchant Wholesalers	0.01%	99.9%
621512	Diagnostic Imaging Centers	0.01%	99.9%
423490	Other Professional Equipment and Supplies Merchant Wholesalers	0.01%	99.9%
423440	Other Commercial Equipment Merchant Wholesalers	0.01%	99.95%
512110	Motion Picture and Video Production	0.01%	99.96%
423140	Motor Vehicle Parts (Used) Merchant Wholesalers	0.004%	99.96%
562991	Septic Tank and Related Services	0.004%	99.97%
424490	Other Grocery and Related Products Merchant Wholesalers	0.004%	99.97%
562920	Materials Recovery Facilities	0.004%	99.97%
321113	Sawmills	0.003%	99.98%
238190	Other Foundation, Structure, and Building Exterior Contractors	0.003%	99.98%
424210	Drugs and Druggists' Sundries Merchant Wholesalers	0.003%	99.98%
811211	Consumer Electronics Repair and Maintenance	0.003%	99.98%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	0.003%	99.99%
423460	Ophthalmic Goods Merchant Wholesalers	0.002%	99.99%

NAICS	NAICS Code Description	Pct Contract Dollars	Cumulative Pct Contract Dollars
517312	Wireless Telecommunications Carriers (except Satellite)	0.002%	99.99%
611519	Other Technical and Trade Schools	0.002%	99.99%
424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers	0.001%	99.99%
524128	Other Direct Insurance (except Life, Health, and Medical) Carriers	0.001%	99.996%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	0.001%	99.997%
922190	Other Justice, Public Order, and Safety Activities	0.001%	99.998%
515112	Radio Stations	0.001%	99.999%
541340	Drafting Services	0.001%	100.0%
Total			100.0%

Source: CHA analysis of MSCAA's Data.

Table 3-10 lists the six counties which capture 68.1% of the non-FAA funded FCDF and their share of these dollars. These six counties comprised the geographic market for the analysis of non-FAA funded contracts.⁵⁷

**Table 3-10: Distribution of Contracts in MSCAA's Geographical Market
non-FAA Funded Contracts**

County	Pct Contract Dollars
Shelby County, TN	66.5%
Crittenden County, AR	0.8%
DeSoto County, MS	0.4%
Tunica County, MS	0.2%
Marshall County, MS	0.2%
Tipton County, TN	0.01%

Source: CHA analysis of MSCAA's Data.

57. Contracts totaling 13.6% of the dollars were spent in Colorado, Florida, Texas, North Carolina and Wisconsin. Tennessee counties outside Shelby comprised six percent of the remaining dollars.

2. The Utilization of M/W/DBEs on MSCAA's non-FAA Funded Contracts

Having determined the Authority's product and geographic market area (and, therefore, the agency's *constrained* product market), the next step was to determine the dollar value of the Authority's utilization of M/W/DBEs as measured by payments to prime firms and subcontractors and disaggregated by race and gender.

Limiting the unconstrained product market to the boundaries of those six counties reduced the number of NAICS codes further analyzed for non-FAA funded contracts to 117.

Tables 3-11 through 3-13 present data on the utilization of contract dollars in the constrained product market. (Note the contract dollar shares in Table 3-3 are equivalent to the weight of spending in each NAICS code. These weights were used to transform data from unweighted availability to weighted availability, as discussed below).

**Table 3-11: NAICS Code Distribution of MSCAA Contract Dollars
non-FAA Funded Contracts**

NAICS	NAICS Code Description	Contract Dollars	Pct Contract Dollars
236220	Commercial and Institutional Building Construction	\$39,199,664.00	22.5%
238210	Electrical Contractors and Other Wiring Installation Contractors	\$22,971,158.00	13.2%
561720	Janitorial Services	\$19,111,330.00	11.0%
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$10,022,280.00	5.8%
237310	Highway, Street, and Bridge Construction	\$9,851,906.00	5.7%
238910	Site Preparation Contractors	\$8,785,435.00	5.0%
488119	Other Airport Operations	\$8,322,913.00	4.8%
541330	Engineering Services	\$4,530,803.00	2.6%
541310	Architectural Services	\$3,938,934.00	2.3%
485310	Taxi Service	\$3,741,551.50	2.2%
238160	Roofing Contractors	\$3,471,445.00	2.0%
238290	Other Building Equipment Contractors	\$3,471,423.75	2.0%
561730	Landscaping Services	\$2,724,236.75	1.6%
541820	Public Relations Agencies	\$2,617,345.50	1.5%

NAICS	NAICS Code Description	Contract Dollars	Pct Contract Dollars
541613	Marketing Consulting Services	\$1,803,459.62	1.0%
238310	Drywall and Insulation Contractors	\$1,666,586.25	1.0%
541110	Offices of Lawyers	\$1,613,410.25	0.9%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	\$1,546,753.38	0.9%
238990	All Other Specialty Trade Contractors	\$1,461,903.25	0.8%
238140	Masonry Contractors	\$1,418,520.50	0.8%
922130	Legal Counsel and Prosecution	\$1,344,078.12	0.8%
236210	Industrial Building Construction	\$1,334,308.75	0.8%
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	\$1,174,063.62	0.7%
238390	Other Building Finishing Contractors	\$1,014,726.00	0.6%
423830	Industrial Machinery and Equipment Merchant Wholesalers	\$973,464.88	0.6%
561612	Security Guards and Patrol Services	\$917,494.81	0.5%
562111	Solid Waste Collection	\$822,659.12	0.5%
541511	Custom Computer Programming Services	\$719,975.69	0.4%
237110	Water and Sewer Line and Related Structures Construction	\$716,823.25	0.4%
621498	All Other Outpatient Care Centers	\$698,105.00	0.4%
561320	Temporary Help Services	\$691,341.62	0.4%
238330	Flooring Contractors	\$630,068.81	0.4%
562910	Remediation Services	\$613,111.88	0.4%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	\$566,005.12	0.3%
238150	Glass and Glazing Contractors	\$543,786.69	0.3%
484220	Specialized Freight (except Used Goods) Trucking, Local	\$528,083.75	0.3%
424130	Industrial and Personal Service Paper Merchant Wholesalers	\$523,389.66	0.3%
541219	Other Accounting Services	\$479,885.00	0.3%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	\$451,717.12	0.3%

NAICS	NAICS Code Description	Contract Dollars	Pct Contract Dollars
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers	\$443,943.28	0.3%
238320	Painting and Wall Covering Contractors	\$435,832.12	0.3%
541211	Offices of Certified Public Accountants	\$402,600.75	0.2%
524113	Direct Life Insurance Carriers	\$383,608.06	0.2%
315210	Cut and Sew Apparel Contractors	\$362,349.72	0.2%
561710	Exterminating and Pest Control Services	\$343,491.09	0.2%
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	\$258,358.70	0.1%
488490	Other Support Activities for Road Transportation	\$237,443.00	0.1%
812320	Drycleaning and Laundry Services (except Coin-Operated)	\$236,421.59	0.1%
541370	Surveying and Mapping (except Geophysical) Services	\$224,701.00	0.1%
531210	Offices of Real Estate Agents and Brokers	\$219,416.44	0.1%
541620	Environmental Consulting Services	\$204,325.91	0.1%
441110	New Car Dealers	\$185,788.78	0.1%
238350	Finish Carpentry Contractors	\$175,089.64	0.1%
561920	Convention and Trade Show Organizers	\$166,307.50	0.1%
237130	Power and Communication Line and Related Structures Construction	\$154,980.00	0.1%
424340	Footwear Merchant Wholesalers	\$148,138.41	0.1%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	\$129,141.20	0.1%
541890	Other Services Related to Advertising	\$126,335.86	0.1%
423840	Industrial Supplies Merchant Wholesalers	\$118,569.18	0.1%
722320	Caterers	\$112,256.85	0.1%
711130	Musical Groups and Artists	\$112,000.00	0.1%
115112	Soil Preparation, Planting, and Cultivating	\$103,751.50	0.1%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	\$99,197.43	0.1%
811111	General Automotive Repair	\$89,082.94	0.1%
531320	Offices of Real Estate Appraisers	\$85,825.00	0.05%

NAICS	NAICS Code Description	Contract Dollars	Pct Contract Dollars
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	\$84,109.14	0.05%
484210	Used Household and Office Goods Moving	\$82,272.00	0.05%
541380	Testing Laboratories	\$76,810.00	0.04%
423210	Furniture Merchant Wholesalers	\$75,453.13	0.04%
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	\$71,122.94	0.04%
238340	Tile and Terrazzo Contractors	\$60,212.84	0.03%
541910	Marketing Research and Public Opinion Polling	\$56,399.00	0.03%
561622	Locksmiths	\$55,964.00	0.03%
621999	All Other Miscellaneous Ambulatory Health Care Services	\$55,380.00	0.03%
485113	Bus and Other Motor Vehicle Transit Systems	\$48,577.00	0.03%
524292	Third Party Administration of Insurance and Pension Funds	\$48,171.41	0.03%
423710	Hardware Merchant Wholesalers	\$45,623.66	0.03%
238120	Structural Steel and Precast Concrete Contractors	\$44,715.10	0.03%
541810	Advertising Agencies	\$42,300.00	0.02%
561990	All Other Support Services	\$39,808.85	0.02%
424430	Dairy Product (except Dried or Canned) Merchant Wholesalers	\$39,316.69	0.02%
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	\$37,564.88	0.02%
424690	Other Chemical and Allied Products Merchant Wholesalers	\$37,109.14	0.02%
611420	Computer Training	\$34,300.00	0.02%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	\$33,327.74	0.02%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	\$30,586.31	0.02%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	\$27,527.31	0.02%
332321	Metal Window and Door Manufacturing	\$21,917.29	0.01%
423130	Tire and Tube Merchant Wholesalers	\$21,726.38	0.01%

NAICS	NAICS Code Description	Contract Dollars	Pct Contract Dollars
424910	Farm Supplies Merchant Wholesalers	\$20,208.75	0.01%
423220	Home Furnishing Merchant Wholesalers	\$19,878.65	0.01%
423740	Refrigeration Equipment and Supplies Merchant Wholesalers	\$18,982.87	0.01%
423330	Roofing, Siding, and Insulation Material Merchant Wholesalers	\$18,264.00	0.01%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	\$15,921.32	0.01%
323111	Commercial Printing (except Screen and Books)	\$15,894.97	0.01%
423390	Other Construction Material Merchant Wholesalers	\$15,880.33	0.01%
423440	Other Commercial Equipment Merchant Wholesalers	\$13,579.20	0.01%
512110	Motion Picture and Video Production	\$12,900.00	0.01%
562991	Septic Tank and Related Services	\$10,373.95	0.01%
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	\$10,358.50	0.01%
321113	Sawmills	\$8,859.30	0.01%
541410	Interior Design Services	\$7,410.15	0.004%
424210	Drugs and Druggists' Sundries Merchant Wholesalers	\$7,320.00	0.004%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	\$6,433.80	0.004%
517312	Wireless Telecommunications Carriers (except Satellite)	\$4,435.04	0.003%
441310	Automotive Parts and Accessories Stores	\$4,188.00	0.002%
611519	Other Technical and Trade Schools	\$4,078.80	0.002%
424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers	\$3,585.00	0.002%
524128	Other Direct Insurance (except Life, Health, and Medical) Carriers	\$3,300.00	0.002%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	\$3,300.00	0.002%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	\$3,250.00	0.002%
423140	Motor Vehicle Parts (Used) Merchant Wholesalers	\$3,182.18	0.002%

NAICS	NAICS Code Description	Contract Dollars	Pct Contract Dollars
922190	Other Justice, Public Order, and Safety Activities	\$3,000.00	0.002%
515112	Radio Stations	\$2,889.00	0.002%
444190	Other Building Material Dealers	\$2,798.00	0.002%
541340	Drafting Services	\$1,643.78	0.001%
541420	Industrial Design Services	\$1,125.00	0.001%
TOTAL		\$173,986,438.99	100.0%

Source: CHA analysis of MSCAA's Data.

**Table 3-12a: Distribution of MSCAA non-FAA Funded Contract Dollars by Race and Gender
(dollars)**

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
115112	Soil Preparation, Planting, and Cultivating	\$103,751.50	\$0.00	\$0.00	\$0.00	\$0.00
236210	Industrial Building Construction	\$426,052.00	\$0.00	\$0.00	\$0.00	\$0.00
236220	Commercial and Institutional Building Construction	\$1,970,327.59	\$252,817.16	\$3,128,780.25	\$0.00	\$7,476,116.32
237110	Water and Sewer Line and Related Structures Construction	\$0.00	\$641,441.25	\$0.00	\$0.00	\$0.00
237130	Power and Communication Line and Related Structures Construction	\$154,980.00	\$0.00	\$0.00	\$0.00	\$0.00
237310	Highway, Street, and Bridge Construction	\$1,452,227.61	\$0.00	\$1,445,237.50	\$0.00	\$44,860.00
238120	Structural Steel and Precast Concrete Contractors	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
238140	Masonry Contractors	\$1,267,668.09	\$0.00	\$0.00	\$0.00	\$138,052.42

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NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
238150	Glass and Glazing Contractors	\$0.00	\$0.00	\$0.00	\$0.00	\$17,157.00
238160	Roofing Contractors	\$182,234.00	\$0.00	\$0.00	\$0.00	\$3,287,635.97
238210	Electrical Contractors and Other Wiring Installation Contractors	\$5,481,451.61	\$218,646.10	\$0.00	\$252,331.78	\$6,670,849.52
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$1,241,998.61	\$0.00	\$0.00	\$0.00	\$5,834,383.58
238290	Other Building Equipment Contractors	\$0.00	\$0.00	\$0.00	\$0.00	\$1,003,028.45
238310	Drywall and Insulation Contractors	\$226,552.80	\$0.00	\$0.00	\$0.00	\$308,597.50
238320	Painting and Wall Covering Contractors	\$41,108.00	\$0.00	\$0.00	\$0.00	\$0.00
238330	Flooring Contractors	\$369,980.00	\$0.00	\$0.00	\$0.00	\$157,208.00
238340	Tile and Terrazzo Contractors	\$0.00	\$0.00	\$0.00	\$0.00	\$44,128.35
238350	Finish Carpentry Contractors	\$41,106.00	\$0.00	\$0.00	\$0.00	\$0.00
238390	Other Building Finishing Contractors	\$0.00	\$0.00	\$0.00	\$0.00	\$507,847.84
238910	Site Preparation Contractors	\$1,873,841.25	\$0.00	\$4,082,209.81	\$0.00	\$1,992,300.88
238990	All Other Specialty Trade Contractors	\$68,500.00	\$0.00	\$0.00	\$0.00	\$110,992.00
315210	Cut and Sew Apparel Contractors	\$0.00	\$0.00	\$0.00	\$0.00	\$362,349.73
321113	Sawmills	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

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NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
323111	Commercial Printing (except Screen and Books)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
332321	Metal Window and Door Manufacturing	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$43,797.84
423130	Tire and Tube Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
423140	Motor Vehicle Parts (Used) Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
423210	Furniture Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$75,453.13
423220	Home Furnishing Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$19,878.65
423330	Roofing, Siding, and Insulation Material Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
423390	Other Construction Material Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	\$17,250.00	\$0.00	\$0.00	\$0.00	\$0.00

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
423440	Other Commercial Equipment Merchant Wholesalers	\$3,000.00	\$0.00	\$0.00	\$0.00	\$10,579.20
423510	Metal Service Centers and Other Metal Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
423690	Other Electronic Parts and Equipment Merchant Wholesalers	\$0.00	\$60,146.41	\$0.00	\$0.00	\$0.00
423710	Hardware Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$26,085.96
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
423740	Refrigeration Equipment and Supplies Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$2,986.50

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NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	\$6,266.16	\$0.00	\$0.00	\$0.00	\$0.00
423830	Industrial Machinery and Equipment Merchant Wholesalers	\$5,075.00	\$0.00	\$0.00	\$0.00	\$5,772.00
423840	Industrial Supplies Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$7,856.66
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	\$66,744.94	\$0.00	\$0.00	\$0.00	\$0.00
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$15,921.32
424130	Industrial and Personal Service Paper Merchant Wholesalers	\$523,389.65	\$0.00	\$0.00	\$0.00	\$0.00
424210	Drugs and Druggists' Sundries Merchant Wholesalers	\$7,320.00	\$0.00	\$0.00	\$0.00	\$0.00

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NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers	\$3,585.00	\$0.00	\$0.00	\$0.00	\$0.00
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
424340	Footwear Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
424430	Dairy Product (except Dried or Canned) Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
424690	Other Chemical and Allied Products Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	\$47,674.49	\$0.00	\$0.00	\$0.00	\$0.00
424910	Farm Supplies Merchant Wholesalers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
441110	New Car Dealers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
441310	Automotive Parts and Accessories Stores	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
444190	Other Building Material Dealers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

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NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
484210	Used Household and Office Goods Moving	\$0.00	\$0.00	\$0.00	\$0.00	\$56,450.00
484220	Specialized Freight (except Used Goods) Trucking, Local	\$80,000.00	\$0.00	\$0.00	\$0.00	\$123,605.54
485113	Bus and Other Motor Vehicle Transit Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
485310	Taxi Service	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
488119	Other Airport Operations	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
488490	Other Support Activities for Road Transportation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
512110	Motion Picture and Video Production	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
515112	Radio Stations	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
517312	Wireless Telecommunications Carriers (except Satellite)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
524113	Direct Life Insurance Carriers	\$383,608.06	\$0.00	\$0.00	\$0.00	\$0.00
524128	Other Direct Insurance (except Life, Health, and Medical) Carriers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
524292	Third Party Administration of Insurance and Pension Funds	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
531210	Offices of Real Estate Agents and Brokers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

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NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
531320	Offices of Real Estate Appraisers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
541110	Offices of Lawyers	\$0.00	\$0.00	\$0.00	\$0.00	\$128,023.60
541211	Offices of Certified Public Accountants	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
541219	Other Accounting Services	\$479,885.00	\$0.00	\$0.00	\$0.00	\$0.00
541310	Architectural Services	\$8,250.00	\$0.00	\$0.00	\$0.00	\$0.00
541330	Engineering Services	\$234,617.62	\$0.00	\$539,225.12	\$0.00	\$265,507.84
541340	Drafting Services	\$0.00	\$0.00	\$0.00	\$0.00	\$1,643.78
541370	Surveying and Mapping (except Geophysical) Services	\$0.00	\$0.00	\$224,701.00	\$0.00	\$0.00
541380	Testing Laboratories	\$0.00	\$0.00	\$48,910.00	\$0.00	\$0.00
541410	Interior Design Services	\$0.00	\$0.00	\$0.00	\$0.00	\$7,410.15
541420	Industrial Design Services	\$1,125.00	\$0.00	\$0.00	\$0.00	\$0.00
541511	Custom Computer Programming Services	\$30,489.95	\$19,939.00	\$222,668.94	\$0.00	\$30,892.04
541613	Marketing Consulting Services	\$0.00	\$0.00	\$0.00	\$0.00	\$1,803,459.62
541620	Environmental Consulting Services	\$0.00	\$0.00	\$0.00	\$0.00	\$11,850.00
541810	Advertising Agencies	\$42,300.00	\$0.00	\$0.00	\$0.00	\$0.00
541820	Public Relations Agencies	\$0.00	\$0.00	\$0.00	\$0.00	\$2,336,014.41

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NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
541890	Other Services Related to Advertising	\$33,958.07	\$0.00	\$0.00	\$0.00	\$92,377.79
541910	Marketing Research and Public Opinion Polling	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
561320	Temporary Help Services	\$67,898.47	\$48,316.10	\$0.00	\$0.00	\$565,696.88
561612	Security Guards and Patrol Services	\$917,494.81	\$0.00	\$0.00	\$0.00	\$0.00
561622	Locksmiths	\$55,964.00	\$0.00	\$0.00	\$0.00	\$0.00
561710	Exterminating and Pest Control Services	\$111,008.00	\$0.00	\$0.00	\$0.00	\$0.00
561720	Janitorial Services	\$4,557,926.00	\$0.00	\$0.00	\$0.00	\$0.00
561730	Landscaping Services	\$2,348,809.79	\$0.00	\$0.00	\$0.00	\$14,250.00
561920	Convention and Trade Show Organizers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
561990	All Other Support Services	\$0.00	\$0.00	\$0.00	\$0.00	\$1,813.00
562111	Solid Waste Collection	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
562910	Remediation Services	\$0.00	\$0.00	\$0.00	\$0.00	\$414,146.84
562991	Septic Tank and Related Services	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
611420	Computer Training	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
611519	Other Technical and Trade Schools	\$0.00	\$0.00	\$4,078.80	\$0.00	\$0.00
621498	All Other Outpatient Care Centers	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
621999	All Other Miscellaneous Ambulatory Health Care Services	\$0.00	\$0.00	\$0.00	\$0.00	\$55,380.00

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
711130	Musical Groups and Artists	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
722320	Caterers	\$18,214.43	\$0.00	\$0.00	\$0.00	\$5,508.50
811111	General Automotive Repair	\$0.00	\$0.00	\$0.00	\$0.00	\$48,989.50
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
812320	Drycleaning and Laundry Services (except Coin-Operated)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
922130	Legal Counsel and Prosecution	\$322,261.53	\$0.00	\$0.00	\$0.00	\$0.00
922190	Other Justice, Public Order, and Safety Activities	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total		\$25,275,895.03	\$1,241,306.02	\$9,695,811.43	\$252,331.78	\$34,126,858.31

Source: CHA analysis of MSCAA's Data.

**Table 3-12b: Distribution of MSCAA non-FAA Funded Contract Dollars
by Race and Gender (cont.) (dollars)**

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
115112	Soil Preparation, Planting, and Cultivating	\$103,751.50	\$0.00	\$103,751.50
236210	Industrial Building Construction	\$426,052.00	\$908,256.75	\$1,334,308.75
236220	Commercial and Institutional Building Construction	\$12,828,041.32	\$26,371,622.57	\$39,199,663.89
237110	Water and Sewer Line and Related Structures Construction	\$641,441.25	\$75,381.98	\$716,823.23
237130	Power and Communication Line and Related Structures Construction	\$154,980.00	\$0.00	\$154,980.00
237310	Highway, Street, and Bridge Construction	\$2,942,325.11	\$6,909,580.57	\$9,851,905.68

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NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
238120	Structural Steel and Precast Concrete Contractors	\$0.00	\$44,715.10	\$44,715.10
238140	Masonry Contractors	\$1,405,720.51	\$12,800.00	\$1,418,520.52
238150	Glass and Glazing Contractors	\$17,157.00	\$526,629.69	\$543,786.69
238160	Roofing Contractors	\$3,469,869.97	\$1,575.00	\$3,471,444.97
238210	Electrical Contractors and Other Wiring Installation Contractors	\$12,623,279.01	\$10,347,879.96	\$22,971,158.96
238220	Plumbing, Heating, and Air-Conditioning Contractors	\$7,076,382.19	\$2,945,898.16	\$10,022,280.35
238290	Other Building Equipment Contractors	\$1,003,028.45	\$2,468,395.20	\$3,471,423.65
238310	Drywall and Insulation Contractors	\$535,150.30	\$1,131,436.00	\$1,666,586.30
238320	Painting and Wall Covering Contractors	\$41,108.00	\$394,724.13	\$435,832.13
238330	Flooring Contractors	\$527,188.00	\$102,880.80	\$630,068.80
238340	Tile and Terrazzo Contractors	\$44,128.35	\$16,084.49	\$60,212.84
238350	Finish Carpentry Contractors	\$41,106.00	\$133,983.64	\$175,089.64
238390	Other Building Finishing Contractors	\$507,847.84	\$506,878.18	\$1,014,726.02
238910	Site Preparation Contractors	\$7,948,351.94	\$837,083.29	\$8,785,435.23
238990	All Other Specialty Trade Contractors	\$179,492.00	\$1,282,411.23	\$1,461,903.23
315210	Cut and Sew Apparel Contractors	\$362,349.73	\$0.00	\$362,349.73
321113	Sawmills	\$0.00	\$8,859.30	\$8,859.30
323111	Commercial Printing (except Screen and Books)	\$0.00	\$15,894.97	\$15,894.97
332321	Metal Window and Door Manufacturing	\$0.00	\$21,917.29	\$21,917.29
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	\$0.00	\$37,564.88	\$37,564.88
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	\$43,797.84	\$407,919.28	\$451,717.12
423130	Tire and Tube Merchant Wholesalers	\$0.00	\$21,726.38	\$21,726.38
423140	Motor Vehicle Parts (Used) Merchant Wholesalers	\$0.00	\$3,182.18	\$3,182.18
423210	Furniture Merchant Wholesalers	\$75,453.13	\$0.00	\$75,453.13
423220	Home Furnishing Merchant Wholesalers	\$19,878.65	\$0.00	\$19,878.65
423330	Roofing, Siding, and Insulation Material Merchant Wholesalers	\$0.00	\$18,264.00	\$18,264.00

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NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
423390	Other Construction Material Merchant Wholesalers	\$0.00	\$15,880.33	\$15,880.33
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	\$17,250.00	\$66,859.14	\$84,109.14
423440	Other Commercial Equipment Merchant Wholesalers	\$13,579.20	\$0.00	\$13,579.20
423510	Metal Service Centers and Other Metal Merchant Wholesalers	\$0.00	\$566,005.12	\$566,005.12
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	\$0.00	\$129,141.21	\$129,141.21
423690	Other Electronic Parts and Equipment Merchant Wholesalers	\$60,146.41	\$39,051.02	\$99,197.43
423710	Hardware Merchant Wholesalers	\$0.00	\$45,623.66	\$45,623.66
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	\$26,085.96	\$4,500.35	\$30,586.31
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	\$0.00	\$258,358.70	\$258,358.70
423740	Refrigeration Equipment and Supplies Merchant Wholesalers	\$2,986.50	\$15,996.37	\$18,982.87
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	\$0.00	\$10,358.50	\$10,358.50
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	\$6,266.16	\$1,167,797.41	\$1,174,063.57
423830	Industrial Machinery and Equipment Merchant Wholesalers	\$10,847.00	\$962,617.87	\$973,464.87
423840	Industrial Supplies Merchant Wholesalers	\$7,856.66	\$110,712.52	\$118,569.18
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	\$66,744.94	\$4,378.00	\$71,122.94
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	\$0.00	\$3,300.00	\$3,300.00
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	\$15,921.32	\$0.00	\$15,921.32
424130	Industrial and Personal Service Paper Merchant Wholesalers	\$523,389.65	\$0.00	\$523,389.65

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NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
424210	Drugs and Druggists' Sundries Merchant Wholesalers	\$7,320.00	\$0.00	\$7,320.00
424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers	\$3,585.00	\$0.00	\$3,585.00
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers	\$0.00	\$443,943.29	\$443,943.29
424340	Footwear Merchant Wholesalers	\$0.00	\$148,138.41	\$148,138.41
424430	Dairy Product (except Dried or Canned) Merchant Wholesalers	\$0.00	\$39,316.69	\$39,316.69
424690	Other Chemical and Allied Products Merchant Wholesalers	\$0.00	\$37,109.14	\$37,109.14
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	\$47,674.49	\$1,499,078.93	\$1,546,753.41
424910	Farm Supplies Merchant Wholesalers	\$0.00	\$20,208.75	\$20,208.75
441110	New Car Dealers	\$0.00	\$185,788.79	\$185,788.79
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	\$0.00	\$27,527.31	\$27,527.31
441310	Automotive Parts and Accessories Stores	\$0.00	\$4,188.00	\$4,188.00
444190	Other Building Material Dealers	\$0.00	\$2,798.00	\$2,798.00
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	\$0.00	\$3,250.00	\$3,250.00
484210	Used Household and Office Goods Moving	\$56,450.00	\$25,822.00	\$82,272.00
484220	Specialized Freight (except Used Goods) Trucking, Local	\$203,605.54	\$324,478.20	\$528,083.74
485113	Bus and Other Motor Vehicle Transit Systems	\$0.00	\$48,577.00	\$48,577.00
485310	Taxi Service	\$0.00	\$3,741,551.56	\$3,741,551.56
488119	Other Airport Operations	\$0.00	\$8,322,913.00	\$8,322,913.00
488490	Other Support Activities for Road Transportation	\$0.00	\$237,443.00	\$237,443.00
512110	Motion Picture and Video Production	\$0.00	\$12,900.00	\$12,900.00
515112	Radio Stations	\$0.00	\$2,889.00	\$2,889.00
517312	Wireless Telecommunications Carriers (except Satellite)	\$0.00	\$4,435.04	\$4,435.04
524113	Direct Life Insurance Carriers	\$383,608.06	\$0.00	\$383,608.06

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NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
524128	Other Direct Insurance (except Life, Health, and Medical) Carriers	\$0.00	\$3,300.00	\$3,300.00
524292	Third Party Administration of Insurance and Pension Funds	\$0.00	\$48,171.41	\$48,171.41
531210	Offices of Real Estate Agents and Brokers	\$0.00	\$219,416.44	\$219,416.44
531320	Offices of Real Estate Appraisers	\$0.00	\$85,825.00	\$85,825.00
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	\$0.00	\$33,327.74	\$33,327.74
541110	Offices of Lawyers	\$128,023.60	\$1,485,386.60	\$1,613,410.20
541211	Offices of Certified Public Accountants	\$0.00	\$402,600.77	\$402,600.77
541219	Other Accounting Services	\$479,885.00	\$0.00	\$479,885.00
541310	Architectural Services	\$8,250.00	\$3,930,683.88	\$3,938,933.88
541330	Engineering Services	\$1,039,350.59	\$3,491,452.19	\$4,530,802.78
541340	Drafting Services	\$1,643.78	\$0.00	\$1,643.78
541370	Surveying and Mapping (except Geophysical) Services	\$224,701.00	\$0.00	\$224,701.00
541380	Testing Laboratories	\$48,910.00	\$27,900.00	\$76,810.00
541410	Interior Design Services	\$7,410.15	\$0.00	\$7,410.15
541420	Industrial Design Services	\$1,125.00	\$0.00	\$1,125.00
541511	Custom Computer Programming Services	\$303,989.93	\$415,985.75	\$719,975.68
541613	Marketing Consulting Services	\$1,803,459.62	\$0.00	\$1,803,459.62
541620	Environmental Consulting Services	\$11,850.00	\$192,475.90	\$204,325.90
541810	Advertising Agencies	\$42,300.00	\$0.00	\$42,300.00
541820	Public Relations Agencies	\$2,336,014.41	\$281,330.97	\$2,617,345.38
541890	Other Services Related to Advertising	\$126,335.86	\$0.00	\$126,335.86
541910	Marketing Research and Public Opinion Polling	\$0.00	\$56,399.00	\$56,399.00
561320	Temporary Help Services	\$681,911.45	\$9,430.16	\$691,341.61
561612	Security Guards and Patrol Services	\$917,494.81	\$0.00	\$917,494.81
561622	Locksmiths	\$55,964.00	\$0.00	\$55,964.00
561710	Exterminating and Pest Control Services	\$111,008.00	\$232,483.09	\$343,491.09
561720	Janitorial Services	\$4,557,926.00	\$14,553,404.35	\$19,111,330.35
561730	Landscaping Services	\$2,363,059.79	\$361,176.84	\$2,724,236.64

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
561920	Convention and Trade Show Organizers	\$0.00	\$166,307.50	\$166,307.50
561990	All Other Support Services	\$1,813.00	\$37,995.85	\$39,808.85
562111	Solid Waste Collection	\$0.00	\$822,659.16	\$822,659.16
562910	Remediation Services	\$414,146.84	\$198,965.00	\$613,111.84
562991	Septic Tank and Related Services	\$0.00	\$10,373.95	\$10,373.95
611420	Computer Training	\$0.00	\$34,300.00	\$34,300.00
611519	Other Technical and Trade Schools	\$4,078.80	\$0.00	\$4,078.80
621498	All Other Outpatient Care Centers	\$0.00	\$698,105.00	\$698,105.00
621999	All Other Miscellaneous Ambulatory Health Care Services	\$55,380.00	\$0.00	\$55,380.00
711130	Musical Groups and Artists	\$0.00	\$112,000.00	\$112,000.00
722320	Caterers	\$23,722.93	\$88,533.92	\$112,256.85
811111	General Automotive Repair	\$48,989.50	\$40,093.44	\$89,082.94
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	\$0.00	\$6,433.80	\$6,433.80
812320	Drycleaning and Laundry Services (except Coin-Operated)	\$0.00	\$236,421.59	\$236,421.59
922130	Legal Counsel and Prosecution	\$322,261.53	\$1,021,816.63	\$1,344,078.16
922190	Other Justice, Public Order, and Safety Activities	\$0.00	\$3,000.00	\$3,000.00
Total		\$70,592,202.56	\$103,394,237.27	\$173,986,439.82^a

a. This total is \$0.83 greater than the total in Table 3-11. The difference is because of the way in which different statistical programs processed the data at two different times.

Source: CHA analysis of MSCAA's Data.

**Table 3-13a: Distribution of MSCAA non-FAA Funded Contract Dollars by Race and Gender
(share of dollars)**

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
115112	Soil Preparation, Planting, and Cultivating	100.0%	0.0%	0.0%	0.0%	0.0%
236210	Industrial Building Construction	31.9%	0.0%	0.0%	0.0%	0.0%
236220	Commercial and Institutional Building Construction	5.0%	0.6%	8.0%	0.0%	19.1%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
237110	Water and Sewer Line and Related Structures Construction	0.0%	89.5%	0.0%	0.0%	0.0%
237130	Power and Communication Line and Related Structures Construction	100.0%	0.0%	0.0%	0.0%	0.0%
237310	Highway, Street, and Bridge Construction	14.7%	0.0%	14.7%	0.0%	0.5%
238120	Structural Steel and Precast Concrete Contractors	0.0%	0.0%	0.0%	0.0%	0.0%
238140	Masonry Contractors	89.4%	0.0%	0.0%	0.0%	9.7%
238150	Glass and Glazing Contractors	0.0%	0.0%	0.0%	0.0%	3.2%
238160	Roofing Contractors	5.2%	0.0%	0.0%	0.0%	94.7%
238210	Electrical Contractors and Other Wiring Installation Contractors	23.9%	1.0%	0.0%	1.1%	29.0%
238220	Plumbing, Heating, and Air-Conditioning Contractors	12.4%	0.0%	0.0%	0.0%	58.2%
238290	Other Building Equipment Contractors	0.0%	0.0%	0.0%	0.0%	28.9%
238310	Drywall and Insulation Contractors	13.6%	0.0%	0.0%	0.0%	18.5%
238320	Painting and Wall Covering Contractors	9.4%	0.0%	0.0%	0.0%	0.0%
238330	Flooring Contractors	58.7%	0.0%	0.0%	0.0%	25.0%
238340	Tile and Terrazzo Contractors	0.0%	0.0%	0.0%	0.0%	73.3%
238350	Finish Carpentry Contractors	23.5%	0.0%	0.0%	0.0%	0.0%
238390	Other Building Finishing Contractors	0.0%	0.0%	0.0%	0.0%	50.0%
238910	Site Preparation Contractors	21.3%	0.0%	46.5%	0.0%	22.7%
238990	All Other Specialty Trade Contractors	4.7%	0.0%	0.0%	0.0%	7.6%
315210	Cut and Sew Apparel Contractors	0.0%	0.0%	0.0%	0.0%	100.0%
321113	Sawmills	0.0%	0.0%	0.0%	0.0%	0.0%
323111	Commercial Printing (except Screen and Books)	0.0%	0.0%	0.0%	0.0%	0.0%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
332321	Metal Window and Door Manufacturing	0.0%	0.0%	0.0%	0.0%	0.0%
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	9.7%
423130	Tire and Tube Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423140	Motor Vehicle Parts (Used) Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423210	Furniture Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	100.0%
423220	Home Furnishing Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	100.0%
423330	Roofing, Siding, and Insulation Material Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423390	Other Construction Material Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	20.5%	0.0%	0.0%	0.0%	0.0%
423440	Other Commercial Equipment Merchant Wholesalers	22.1%	0.0%	0.0%	0.0%	77.9%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	0.0%	60.6%	0.0%	0.0%	0.0%
423710	Hardware Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	85.3%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423740	Refrigeration Equipment and Supplies Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	15.7%
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	0.5%	0.0%	0.0%	0.0%	0.0%
423830	Industrial Machinery and Equipment Merchant Wholesalers	0.5%	0.0%	0.0%	0.0%	0.6%
423840	Industrial Supplies Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	6.6%
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	93.8%	0.0%	0.0%	0.0%	0.0%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	100.0%
424130	Industrial and Personal Service Paper Merchant Wholesalers	100.0%	0.0%	0.0%	0.0%	0.0%
424210	Drugs and Druggists' Sundries Merchant Wholesalers	100.0%	0.0%	0.0%	0.0%	0.0%
424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers	100.0%	0.0%	0.0%	0.0%	0.0%
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
424340	Footwear Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
424430	Dairy Product (except Dried or Canned) Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
424690	Other Chemical and Allied Products Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	3.1%	0.0%	0.0%	0.0%	0.0%
424910	Farm Supplies Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
441110	New Car Dealers	0.0%	0.0%	0.0%	0.0%	0.0%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	0.0%	0.0%	0.0%	0.0%	0.0%
441310	Automotive Parts and Accessories Stores	0.0%	0.0%	0.0%	0.0%	0.0%
444190	Other Building Material Dealers	0.0%	0.0%	0.0%	0.0%	0.0%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	0.0%	0.0%	0.0%	0.0%	0.0%
484210	Used Household and Office Goods Moving	0.0%	0.0%	0.0%	0.0%	68.6%
484220	Specialized Freight (except Used Goods) Trucking, Local	15.1%	0.0%	0.0%	0.0%	23.4%
485113	Bus and Other Motor Vehicle Transit Systems	0.0%	0.0%	0.0%	0.0%	0.0%
485310	Taxi Service	0.0%	0.0%	0.0%	0.0%	0.0%
488119	Other Airport Operations	0.0%	0.0%	0.0%	0.0%	0.0%
488490	Other Support Activities for Road Transportation	0.0%	0.0%	0.0%	0.0%	0.0%
512110	Motion Picture and Video Production	0.0%	0.0%	0.0%	0.0%	0.0%
515112	Radio Stations	0.0%	0.0%	0.0%	0.0%	0.0%
517312	Wireless Telecommunications Carriers (except Satellite)	0.0%	0.0%	0.0%	0.0%	0.0%
524113	Direct Life Insurance Carriers	100.0%	0.0%	0.0%	0.0%	0.0%

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NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
524128	Other Direct Insurance (except Life, Health, and Medical) Carriers	0.0%	0.0%	0.0%	0.0%	0.0%
524292	Third Party Administration of Insurance and Pension Funds	0.0%	0.0%	0.0%	0.0%	0.0%
531210	Offices of Real Estate Agents and Brokers	0.0%	0.0%	0.0%	0.0%	0.0%
531320	Offices of Real Estate Appraisers	0.0%	0.0%	0.0%	0.0%	0.0%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	0.0%	0.0%	0.0%	0.0%	0.0%
541110	Offices of Lawyers	0.0%	0.0%	0.0%	0.0%	7.9%
541211	Offices of Certified Public Accountants	0.0%	0.0%	0.0%	0.0%	0.0%
541219	Other Accounting Services	100.0%	0.0%	0.0%	0.0%	0.0%
541310	Architectural Services	0.2%	0.0%	0.0%	0.0%	0.0%
541330	Engineering Services	5.2%	0.0%	11.9%	0.0%	5.9%
541340	Drafting Services	0.0%	0.0%	0.0%	0.0%	100.0%
541370	Surveying and Mapping (except Geophysical) Services	0.0%	0.0%	100.0%	0.0%	0.0%
541380	Testing Laboratories	0.0%	0.0%	63.7%	0.0%	0.0%
541410	Interior Design Services	0.0%	0.0%	0.0%	0.0%	100.0%
541420	Industrial Design Services	100.0%	0.0%	0.0%	0.0%	0.0%
541511	Custom Computer Programming Services	4.2%	2.8%	30.9%	0.0%	4.3%
541613	Marketing Consulting Services	0.0%	0.0%	0.0%	0.0%	100.0%
541620	Environmental Consulting Services	0.0%	0.0%	0.0%	0.0%	5.8%
541810	Advertising Agencies	100.0%	0.0%	0.0%	0.0%	0.0%
541820	Public Relations Agencies	0.0%	0.0%	0.0%	0.0%	89.3%
541890	Other Services Related to Advertising	26.9%	0.0%	0.0%	0.0%	73.1%
541910	Marketing Research and Public Opinion Polling	0.0%	0.0%	0.0%	0.0%	0.0%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
561320	Temporary Help Services	9.8%	7.0%	0.0%	0.0%	81.8%
561612	Security Guards and Patrol Services	100.0%	0.0%	0.0%	0.0%	0.0%
561622	Locksmiths	100.0%	0.0%	0.0%	0.0%	0.0%
561710	Exterminating and Pest Control Services	32.3%	0.0%	0.0%	0.0%	0.0%
561720	Janitorial Services	23.8%	0.0%	0.0%	0.0%	0.0%
561730	Landscaping Services	86.2%	0.0%	0.0%	0.0%	0.5%
561920	Convention and Trade Show Organizers	0.0%	0.0%	0.0%	0.0%	0.0%
561990	All Other Support Services	0.0%	0.0%	0.0%	0.0%	4.6%
562111	Solid Waste Collection	0.0%	0.0%	0.0%	0.0%	0.0%
562910	Remediation Services	0.0%	0.0%	0.0%	0.0%	67.5%
562991	Septic Tank and Related Services	0.0%	0.0%	0.0%	0.0%	0.0%
611420	Computer Training	0.0%	0.0%	0.0%	0.0%	0.0%
611519	Other Technical and Trade Schools	0.0%	0.0%	100.0%	0.0%	0.0%
621498	All Other Outpatient Care Centers	0.0%	0.0%	0.0%	0.0%	0.0%
621999	All Other Miscellaneous Ambulatory Health Care Services	0.0%	0.0%	0.0%	0.0%	100.0%
711130	Musical Groups and Artists	0.0%	0.0%	0.0%	0.0%	0.0%
722320	Caterers	16.2%	0.0%	0.0%	0.0%	4.9%
811111	General Automotive Repair	0.0%	0.0%	0.0%	0.0%	55.0%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	0.0%	0.0%	0.0%	0.0%	0.0%
812320	Drycleaning and Laundry Services (except Coin-Operated)	0.0%	0.0%	0.0%	0.0%	0.0%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
922130	Legal Counsel and Prosecution	24.0%	0.0%	0.0%	0.0%	0.0%
922190	Other Justice, Public Order, and Safety Activities	0.0%	0.0%	0.0%	0.0%	0.0%
Total		14.5%	0.7%	5.6%	0.1%	19.6%

Source: CHA analysis of MSCAA's Data.

Table 3-13b: Distribution of MSCAA non-FAA Funded Contract Dollars by Race and Gender (cont.) (share of dollars)

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
115112	Soil Preparation, Planting, and Cultivating	100.0%	0.0%	100.0%
236210	Industrial Building Construction	31.9%	68.1%	100.0%
236220	Commercial and Institutional Building Construction	32.7%	67.3%	100.0%
237110	Water and Sewer Line and Related Structures Construction	89.5%	10.5%	100.0%
237130	Power and Communication Line and Related Structures Construction	100.0%	0.0%	100.0%
237310	Highway, Street, and Bridge Construction	29.9%	70.1%	100.0%
238120	Structural Steel and Precast Concrete Contractors	0.0%	100.0%	100.0%
238140	Masonry Contractors	99.1%	0.9%	100.0%
238150	Glass and Glazing Contractors	3.2%	96.8%	100.0%
238160	Roofing Contractors	100.0%	0.0%	100.0%
238210	Electrical Contractors and Other Wiring Installation Contractors	55.0%	45.0%	100.0%
238220	Plumbing, Heating, and Air-Conditioning Contractors	70.6%	29.4%	100.0%
238290	Other Building Equipment Contractors	28.9%	71.1%	100.0%
238310	Drywall and Insulation Contractors	32.1%	67.9%	100.0%
238320	Painting and Wall Covering Contractors	9.4%	90.6%	100.0%
238330	Flooring Contractors	83.7%	16.3%	100.0%
238340	Tile and Terrazzo Contractors	73.3%	26.7%	100.0%

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
238350	Finish Carpentry Contractors	23.5%	76.5%	100.0%
238390	Other Building Finishing Contractors	50.0%	50.0%	100.0%
238910	Site Preparation Contractors	90.5%	9.5%	100.0%
238990	All Other Specialty Trade Contractors	12.3%	87.7%	100.0%
315210	Cut and Sew Apparel Contractors	100.0%	0.0%	100.0%
321113	Sawmills	0.0%	100.0%	100.0%
323111	Commercial Printing (except Screen and Books)	0.0%	100.0%	100.0%
332321	Metal Window and Door Manufacturing	0.0%	100.0%	100.0%
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	0.0%	100.0%	100.0%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	9.7%	90.3%	100.0%
423130	Tire and Tube Merchant Wholesalers	0.0%	100.0%	100.0%
423140	Motor Vehicle Parts (Used) Merchant Wholesalers	0.0%	100.0%	100.0%
423210	Furniture Merchant Wholesalers	100.0%	0.0%	100.0%
423220	Home Furnishing Merchant Wholesalers	100.0%	0.0%	100.0%
423330	Roofing, Siding, and Insulation Material Merchant Wholesalers	0.0%	100.0%	100.0%
423390	Other Construction Material Merchant Wholesalers	0.0%	100.0%	100.0%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	20.5%	79.5%	100.0%
423440	Other Commercial Equipment Merchant Wholesalers	100.0%	0.0%	100.0%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.0%	100.0%	100.0%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.0%	100.0%	100.0%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	60.6%	39.4%	100.0%

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
423710	Hardware Merchant Wholesalers	0.0%	100.0%	100.0%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	85.3%	14.7%	100.0%
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	0.0%	100.0%	100.0%
423740	Refrigeration Equipment and Supplies Merchant Wholesalers	15.7%	84.3%	100.0%
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	0.0%	100.0%	100.0%
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	0.5%	99.5%	100.0%
423830	Industrial Machinery and Equipment Merchant Wholesalers	1.1%	98.9%	100.0%
423840	Industrial Supplies Merchant Wholesalers	6.6%	93.4%	100.0%
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	93.8%	6.2%	100.0%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	0.0%	100.0%	100.0%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	100.0%	0.0%	100.0%
424130	Industrial and Personal Service Paper Merchant Wholesalers	100.0%	0.0%	100.0%
424210	Drugs and Druggists' Sundries Merchant Wholesalers	100.0%	0.0%	100.0%
424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers	100.0%	0.0%	100.0%
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers	0.0%	100.0%	100.0%
424340	Footwear Merchant Wholesalers	0.0%	100.0%	100.0%
424430	Dairy Product (except Dried or Canned) Merchant Wholesalers	0.0%	100.0%	100.0%
424690	Other Chemical and Allied Products Merchant Wholesalers	0.0%	100.0%	100.0%

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	3.1%	96.9%	100.0%
424910	Farm Supplies Merchant Wholesalers	0.0%	100.0%	100.0%
441110	New Car Dealers	0.0%	100.0%	100.0%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	0.0%	100.0%	100.0%
441310	Automotive Parts and Accessories Stores	0.0%	100.0%	100.0%
444190	Other Building Material Dealers	0.0%	100.0%	100.0%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	0.0%	100.0%	100.0%
484210	Used Household and Office Goods Moving	68.6%	31.4%	100.0%
484220	Specialized Freight (except Used Goods) Trucking, Local	38.6%	61.4%	100.0%
485113	Bus and Other Motor Vehicle Transit Systems	0.0%	100.0%	100.0%
485310	Taxi Service	0.0%	100.0%	100.0%
488119	Other Airport Operations	0.0%	100.0%	100.0%
488490	Other Support Activities for Road Transportation	0.0%	100.0%	100.0%
512110	Motion Picture and Video Production	0.0%	100.0%	100.0%
515112	Radio Stations	0.0%	100.0%	100.0%
517312	Wireless Telecommunications Carriers (except Satellite)	0.0%	100.0%	100.0%
524113	Direct Life Insurance Carriers	100.0%	0.0%	100.0%
524128	Other Direct Insurance (except Life, Health, and Medical) Carriers	0.0%	100.0%	100.0%
524292	Third Party Administration of Insurance and Pension Funds	0.0%	100.0%	100.0%
531210	Offices of Real Estate Agents and Brokers	0.0%	100.0%	100.0%
531320	Offices of Real Estate Appraisers	0.0%	100.0%	100.0%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	0.0%	100.0%	100.0%

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
541110	Offices of Lawyers	7.9%	92.1%	100.0%
541211	Offices of Certified Public Accountants	0.0%	100.0%	100.0%
541219	Other Accounting Services	100.0%	0.0%	100.0%
541310	Architectural Services	0.2%	99.8%	100.0%
541330	Engineering Services	22.9%	77.1%	100.0%
541340	Drafting Services	100.0%	0.0%	100.0%
541370	Surveying and Mapping (except Geophysical) Services	100.0%	0.0%	100.0%
541380	Testing Laboratories	63.7%	36.3%	100.0%
541410	Interior Design Services	100.0%	0.0%	100.0%
541420	Industrial Design Services	100.0%	0.0%	100.0%
541511	Custom Computer Programming Services	42.2%	57.8%	100.0%
541613	Marketing Consulting Services	100.0%	0.0%	100.0%
541620	Environmental Consulting Services	5.8%	94.2%	100.0%
541810	Advertising Agencies	100.0%	0.0%	100.0%
541820	Public Relations Agencies	89.3%	10.7%	100.0%
541890	Other Services Related to Advertising	100.0%	0.0%	100.0%
541910	Marketing Research and Public Opinion Polling	0.0%	100.0%	100.0%
561320	Temporary Help Services	98.6%	1.4%	100.0%
561612	Security Guards and Patrol Services	100.0%	0.0%	100.0%
561622	Locksmiths	100.0%	0.0%	100.0%
561710	Exterminating and Pest Control Services	32.3%	67.7%	100.0%
561720	Janitorial Services	23.8%	76.2%	100.0%
561730	Landscaping Services	86.7%	13.3%	100.0%
561920	Convention and Trade Show Organizers	0.0%	100.0%	100.0%
561990	All Other Support Services	4.6%	95.4%	100.0%
562111	Solid Waste Collection	0.0%	100.0%	100.0%
562910	Remediation Services	67.5%	32.5%	100.0%
562991	Septic Tank and Related Services	0.0%	100.0%	100.0%
611420	Computer Training	0.0%	100.0%	100.0%

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
611519	Other Technical and Trade Schools	100.0%	0.0%	100.0%
621498	All Other Outpatient Care Centers	0.0%	100.0%	100.0%
621999	All Other Miscellaneous Ambulatory Health Care Services	100.0%	0.0%	100.0%
711130	Musical Groups and Artists	0.0%	100.0%	100.0%
722320	Caterers	21.1%	78.9%	100.0%
811111	General Automotive Repair	55.0%	45.0%	100.0%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	0.0%	100.0%	100.0%
812320	Drycleaning and Laundry Services (except Coin-Operated)	0.0%	100.0%	100.0%
922130	Legal Counsel and Prosecution	24.0%	76.0%	100.0%
922190	Other Justice, Public Order, and Safety Activities	0.0%	100.0%	100.0%
Total		40.6%	59.4%	100.0%

Source: CHA analysis of MSCAA's Data.

3. The Availability of M/W/DBEs in MSCAA's Constrained Product Market for non-FAA Funded Contracts

We used the same process to estimate the availability of M/W/DBEs in the Authority's market area for non-FAA funded contracts as we used for its FAA funded contracts. The weighted availability estimates can be used by the Airport to set its M/W/DBE goal for locally funded contracts.

Table 3-14a: Unweighted Availability for MSCAA's non-FAA Funded Contracts

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
115112	Soil Preparation, Planting, and Cultivating	30.0%	0.0%	0.0%	0.0%	0.0%
236210	Industrial Building Construction	39.5%	2.6%	2.6%	0.0%	5.3%
236220	Commercial and Institutional Building Construction	17.9%	1.7%	0.7%	0.3%	7.2%
237110	Water and Sewer Line and Related Structures Construction	16.9%	3.1%	3.1%	1.5%	10.8%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
237130	Power and Communication Line and Related Structures Construction	86.4%	0.0%	0.0%	0.0%	0.3%
237310	Highway, Street, and Bridge Construction	13.8%	1.6%	3.3%	0.8%	5.7%
238120	Structural Steel and Precast Concrete Contractors	18.8%	0.0%	0.0%	0.0%	6.3%
238140	Masonry Contractors	15.1%	1.2%	0.0%	0.0%	4.7%
238150	Glass and Glazing Contractors	5.6%	0.0%	0.0%	0.0%	5.6%
238160	Roofing Contractors	8.2%	1.1%	0.0%	0.4%	5.9%
238210	Electrical Contractors and Other Wiring Installation Contractors	6.0%	1.1%	0.0%	1.3%	8.9%
238220	Plumbing, Heating, and Air-Conditioning Contractors	4.6%	0.3%	0.3%	0.3%	4.6%
238290	Other Building Equipment Contractors	6.9%	0.0%	0.0%	0.0%	13.8%
238310	Drywall and Insulation Contractors	14.3%	1.4%	0.0%	0.0%	7.9%
238320	Painting and Wall Covering Contractors	8.2%	0.8%	0.0%	0.3%	1.4%
238330	Flooring Contractors	18.1%	0.0%	0.0%	1.4%	12.5%
238340	Tile and Terrazzo Contractors	5.9%	0.0%	0.0%	0.0%	5.9%
238350	Finish Carpentry Contractors	18.6%	7.0%	0.0%	0.0%	4.7%
238390	Other Building Finishing Contractors	13.5%	0.0%	0.0%	0.0%	11.5%
238910	Site Preparation Contractors	26.4%	0.8%	3.3%	0.8%	9.1%
238990	All Other Specialty Trade Contractors	5.5%	0.2%	0.2%	0.2%	4.5%
315210	Cut and Sew Apparel Contractors	67.8%	0.0%	0.0%	0.0%	24.0%
321113	Sawmills	0.0%	0.0%	0.0%	0.0%	0.0%
323111	Commercial Printing (except Screen and Books)	6.0%	0.0%	0.0%	0.0%	5.6%
332321	Metal Window and Door Manufacturing	5.9%	0.0%	5.9%	0.0%	5.9%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	4.2%	0.0%	1.9%	0.0%	1.9%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	0.7%	0.0%	0.0%	0.0%	8.7%
423130	Tire and Tube Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423140	Motor Vehicle Parts (Used) Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
423210	Furniture Merchant Wholesalers	38.6%	0.0%	1.1%	0.0%	25.9%
423220	Home Furnishing Merchant Wholesalers	0.0%	0.0%	1.4%	0.0%	7.0%
423330	Roofing, Siding, and Insulation Material Merchant Wholesalers	4.1%	0.0%	0.0%	0.0%	0.0%
423390	Other Construction Material Merchant Wholesalers	5.6%	0.0%	0.0%	0.0%	0.0%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	56.3%	0.0%	0.6%	0.0%	6.1%
423440	Other Commercial Equipment Merchant Wholesalers	1.7%	0.0%	0.0%	0.0%	4.3%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	6.1%	0.0%	0.0%	2.0%	1.7%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	8.0%	0.0%	0.0%	0.0%	7.0%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	18.1%	9.5%	0.0%	0.0%	11.5%
423710	Hardware Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	9.6%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	13.4%	0.0%	0.0%	0.0%	11.9%
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	1.8%	0.0%	1.8%	0.0%	3.6%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
423740	Refrigeration Equipment and Supplies Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	14.5%
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	4.3%	0.0%	4.3%	0.0%	6.4%
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	2.8%	0.0%	0.0%	0.0%	9.8%
423830	Industrial Machinery and Equipment Merchant Wholesalers	2.3%	0.0%	0.0%	0.0%	7.1%
423840	Industrial Supplies Merchant Wholesalers	21.5%	0.0%	0.0%	0.0%	16.6%
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	7.6%	0.0%	0.0%	0.0%	9.5%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	1.5%	0.0%	0.0%	0.0%	16.9%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	4.3%	0.3%	0.0%	0.0%	5.0%
424130	Industrial and Personal Service Paper Merchant Wholesalers	78.2%	0.0%	0.0%	0.0%	11.7%
424210	Drugs and Druggists' Sundries Merchant Wholesalers	16.3%	1.1%	1.1%	0.0%	5.4%
424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers	20.5%	0.1%	0.0%	0.0%	17.2%
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers	45.5%	0.0%	0.0%	0.0%	24.3%
424340	Footwear Merchant Wholesalers	1.3%	0.2%	1.1%	0.0%	8.9%
424430	Dairy Product (except Dried or Canned) Merchant Wholesalers	0.0%	0.0%	0.0%	0.0%	0.0%
424690	Other Chemical and Allied Products Merchant Wholesalers	11.0%	0.0%	3.2%	0.0%	3.2%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	4.9%	0.0%	0.0%	0.0%	3.9%
424910	Farm Supplies Merchant Wholesalers	3.1%	0.0%	0.0%	0.0%	4.6%
441110	New Car Dealers	0.3%	0.0%	0.0%	0.0%	2.7%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	0.0%	0.0%	0.0%	0.0%	2.0%
441310	Automotive Parts and Accessories Stores	0.7%	0.0%	0.0%	0.0%	1.9%
444190	Other Building Material Dealers	4.9%	0.0%	0.0%	0.0%	3.3%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	2.3%	0.1%	0.5%	0.1%	5.3%
484210	Used Household and Office Goods Moving	10.8%	0.1%	0.0%	0.1%	4.0%
484220	Specialized Freight (except Used Goods) Trucking, Local	25.9%	0.0%	1.9%	0.0%	18.5%
485113	Bus and Other Motor Vehicle Transit Systems	20.3%	0.0%	18.4%	0.0%	0.0%
485310	Taxi Service	10.5%	0.0%	6.8%	0.0%	0.2%
488119	Other Airport Operations	0.0%	1.0%	0.0%	0.0%	1.0%
488490	Other Support Activities for Road Transportation	4.5%	0.0%	0.0%	0.0%	4.5%
512110	Motion Picture and Video Production	8.2%	0.0%	1.4%	0.0%	5.5%
515112	Radio Stations	9.8%	0.0%	0.0%	0.0%	0.0%
517312	Wireless Telecommunications Carriers (except Satellite)	0.5%	0.0%	0.4%	0.0%	0.6%
524113	Direct Life Insurance Carriers	6.6%	0.0%	0.0%	0.0%	0.0%
524128	Other Direct Insurance (except Life, Health, and Medical) Carriers	0.0%	0.0%	0.0%	0.0%	0.0%
524292	Third Party Administration of Insurance and Pension Funds	0.4%	0.0%	0.0%	0.0%	1.5%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
531210	Offices of Real Estate Agents and Brokers	2.8%	0.3%	0.1%	0.0%	5.6%
531320	Offices of Real Estate Appraisers	8.9%	0.1%	0.1%	0.0%	5.0%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	0.8%	0.0%	0.4%	0.0%	2.1%
541110	Offices of Lawyers	1.7%	0.0%	0.0%	0.0%	6.3%
541211	Offices of Certified Public Accountants	3.7%	0.0%	0.0%	0.0%	9.1%
541219	Other Accounting Services	5.3%	0.0%	0.0%	0.0%	15.4%
541310	Architectural Services	7.1%	0.0%	2.4%	0.0%	8.7%
541330	Engineering Services	7.9%	0.3%	4.7%	0.3%	7.9%
541340	Drafting Services	0.0%	0.0%	0.0%	0.0%	33.3%
541370	Surveying and Mapping (except Geophysical) Services	9.5%	2.4%	7.1%	0.0%	2.4%
541380	Testing Laboratories	7.6%	0.0%	1.5%	0.0%	1.5%
541410	Interior Design Services	0.0%	0.0%	0.0%	0.0%	31.7%
541420	Industrial Design Services	33.9%	0.1%	0.1%	0.0%	2.6%
541511	Custom Computer Programming Services	6.4%	1.0%	3.0%	0.0%	5.4%
541613	Marketing Consulting Services	11.9%	0.0%	0.8%	0.0%	8.3%
541620	Environmental Consulting Services	10.0%	0.0%	1.4%	0.0%	12.9%
541810	Advertising Agencies	6.4%	0.0%	0.0%	0.0%	14.7%
541820	Public Relations Agencies	26.3%	0.0%	0.0%	0.0%	18.4%
541890	Other Services Related to Advertising	11.5%	0.1%	0.1%	0.0%	19.6%
541910	Marketing Research and Public Opinion Polling	6.3%	0.0%	2.1%	0.0%	10.4%
561320	Temporary Help Services	14.8%	0.7%	0.0%	0.0%	9.9%
561612	Security Guards and Patrol Services	24.8%	0.7%	0.0%	0.0%	5.4%
561622	Locksmiths	6.1%	0.0%	0.0%	0.0%	8.2%

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NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
561710	Exterminating and Pest Control Services	7.1%	0.6%	0.0%	0.0%	3.5%
561720	Janitorial Services	18.8%	0.6%	0.3%	0.0%	7.7%
561730	Landscaping Services	12.1%	0.2%	0.0%	0.2%	2.7%
561920	Convention and Trade Show Organizers	24.5%	0.1%	0.1%	0.0%	17.3%
561990	All Other Support Services	3.7%	0.2%	0.2%	0.0%	3.0%
562111	Solid Waste Collection	55.6%	0.0%	0.0%	0.0%	0.0%
562910	Remediation Services	11.1%	0.0%	0.0%	0.0%	22.2%
562991	Septic Tank and Related Services	0.9%	0.1%	0.0%	0.0%	2.7%
611420	Computer Training	50.5%	0.0%	0.0%	1.4%	12.8%
611519	Other Technical and Trade Schools	14.4%	0.0%	1.2%	0.9%	9.4%
621498	All Other Outpatient Care Centers	1.0%	0.0%	0.0%	0.0%	3.6%
621999	All Other Miscellaneous Ambulatory Health Care Services	3.2%	0.0%	0.0%	0.0%	3.0%
711130	Musical Groups and Artists	7.9%	0.0%	0.0%	0.0%	3.3%
722320	Caterers	4.0%	0.0%	0.2%	0.0%	4.1%
811111	General Automotive Repair	0.7%	0.0%	0.0%	0.0%	2.8%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	1.9%	0.9%	0.0%	0.0%	2.8%
812320	Drycleaning and Laundry Services (except Coin-Operated)	3.6%	0.0%	0.7%	0.0%	5.7%
922130	Legal Counsel and Prosecution	13.6%	0.0%	0.0%	0.0%	0.0%
922190	Other Justice, Public Order, and Safety Activities	0.0%	0.0%	0.0%	0.0%	0.0%
Total		6.6%	0.3%	0.4%	0.1%	5.4%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

Table 3-14b: Unweighted Availability for MSCAA's non-FAA Funded Contracts

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
115112	Soil Preparation, Planting, and Cultivating	30.0%	70.0%	100.0%
236210	Industrial Building Construction	50.0%	50.0%	100.0%
236220	Commercial and Institutional Building Construction	27.9%	72.1%	100.0%
237110	Water and Sewer Line and Related Structures Construction	35.4%	64.6%	100.0%
237130	Power and Communication Line and Related Structures Construction	86.7%	13.3%	100.0%
237310	Highway, Street, and Bridge Construction	25.2%	74.8%	100.0%
238120	Structural Steel and Precast Concrete Contractors	25.0%	75.0%	100.0%
238140	Masonry Contractors	20.9%	79.1%	100.0%
238150	Glass and Glazing Contractors	11.1%	88.9%	100.0%
238160	Roofing Contractors	15.6%	84.4%	100.0%
238210	Electrical Contractors and Other Wiring Installation Contractors	17.4%	82.6%	100.0%
238220	Plumbing, Heating, and Air-Conditioning Contractors	10.3%	89.7%	100.0%
238290	Other Building Equipment Contractors	20.7%	79.3%	100.0%
238310	Drywall and Insulation Contractors	23.6%	76.4%	100.0%
238320	Painting and Wall Covering Contractors	10.7%	89.3%	100.0%
238330	Flooring Contractors	31.9%	68.1%	100.0%
238340	Tile and Terrazzo Contractors	11.8%	88.2%	100.0%
238350	Finish Carpentry Contractors	30.2%	69.8%	100.0%
238390	Other Building Finishing Contractors	25.0%	75.0%	100.0%
238910	Site Preparation Contractors	40.5%	59.5%	100.0%
238990	All Other Specialty Trade Contractors	10.5%	89.5%	100.0%
315210	Cut and Sew Apparel Contractors	91.9%	8.1%	100.0%
321113	Sawmills	0.0%	100.0%	100.0%
323111	Commercial Printing (except Screen and Books)	11.6%	88.4%	100.0%
332321	Metal Window and Door Manufacturing	17.6%	82.4%	100.0%

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	8.0%	92.0%	100.0%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	9.4%	90.6%	100.0%
423130	Tire and Tube Merchant Wholesalers	0.0%	100.0%	100.0%
423140	Motor Vehicle Parts (Used) Merchant Wholesalers	0.0%	100.0%	100.0%
423210	Furniture Merchant Wholesalers	65.7%	34.3%	100.0%
423220	Home Furnishing Merchant Wholesalers	8.5%	91.5%	100.0%
423330	Roofing, Siding, and Insulation Material Merchant Wholesalers	4.1%	95.9%	100.0%
423390	Other Construction Material Merchant Wholesalers	5.6%	94.4%	100.0%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	63.1%	36.9%	100.0%
423440	Other Commercial Equipment Merchant Wholesalers	6.0%	94.0%	100.0%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	9.9%	90.1%	100.0%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	15.0%	85.0%	100.0%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	39.1%	60.9%	100.0%
423710	Hardware Merchant Wholesalers	9.6%	90.4%	100.0%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	25.3%	74.7%	100.0%
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	7.1%	92.9%	100.0%
423740	Refrigeration Equipment and Supplies Merchant Wholesalers	14.5%	85.5%	100.0%

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	14.9%	85.1%	100.0%
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	12.5%	87.5%	100.0%
423830	Industrial Machinery and Equipment Merchant Wholesalers	9.3%	90.7%	100.0%
423840	Industrial Supplies Merchant Wholesalers	38.1%	61.9%	100.0%
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	17.1%	82.9%	100.0%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	18.3%	81.7%	100.0%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	9.6%	90.4%	100.0%
424130	Industrial and Personal Service Paper Merchant Wholesalers	89.9%	10.1%	100.0%
424210	Drugs and Druggists' Sundries Merchant Wholesalers	23.8%	76.2%	100.0%
424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers	37.8%	62.2%	100.0%
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers	69.8%	30.2%	100.0%
424340	Footwear Merchant Wholesalers	11.5%	88.5%	100.0%
424430	Dairy Product (except Dried or Canned) Merchant Wholesalers	0.0%	100.0%	100.0%
424690	Other Chemical and Allied Products Merchant Wholesalers	17.4%	82.6%	100.0%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	8.8%	91.2%	100.0%
424910	Farm Supplies Merchant Wholesalers	7.7%	92.3%	100.0%
441110	New Car Dealers	3.0%	97.0%	100.0%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	2.0%	98.0%	100.0%
441310	Automotive Parts and Accessories Stores	2.6%	97.4%	100.0%

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
444190	Other Building Material Dealers	8.2%	91.8%	100.0%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	8.4%	91.6%	100.0%
484210	Used Household and Office Goods Moving	14.9%	85.1%	100.0%
484220	Specialized Freight (except Used Goods) Trucking, Local	46.3%	53.7%	100.0%
485113	Bus and Other Motor Vehicle Transit Systems	38.7%	61.3%	100.0%
485310	Taxi Service	17.4%	82.6%	100.0%
488119	Other Airport Operations	2.0%	98.0%	100.0%
488490	Other Support Activities for Road Transportation	9.1%	90.9%	100.0%
512110	Motion Picture and Video Production	15.1%	84.9%	100.0%
515112	Radio Stations	9.8%	90.2%	100.0%
517312	Wireless Telecommunications Carriers (except Satellite)	1.6%	98.4%	100.0%
524113	Direct Life Insurance Carriers	6.6%	93.4%	100.0%
524128	Other Direct Insurance (except Life, Health, and Medical) Carriers	0.0%	100.0%	100.0%
524292	Third Party Administration of Insurance and Pension Funds	1.9%	98.1%	100.0%
531210	Offices of Real Estate Agents and Brokers	8.9%	91.1%	100.0%
531320	Offices of Real Estate Appraisers	14.1%	85.9%	100.0%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	3.3%	96.7%	100.0%
541110	Offices of Lawyers	8.0%	92.0%	100.0%
541211	Offices of Certified Public Accountants	12.8%	87.2%	100.0%
541219	Other Accounting Services	20.7%	79.3%	100.0%
541310	Architectural Services	18.3%	81.7%	100.0%
541330	Engineering Services	21.1%	78.9%	100.0%
541340	Drafting Services	33.3%	66.7%	100.0%

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
541370	Surveying and Mapping (except Geophysical) Services	21.4%	78.6%	100.0%
541380	Testing Laboratories	10.6%	89.4%	100.0%
541410	Interior Design Services	31.7%	68.3%	100.0%
541420	Industrial Design Services	36.8%	63.2%	100.0%
541511	Custom Computer Programming Services	15.8%	84.2%	100.0%
541613	Marketing Consulting Services	21.0%	79.0%	100.0%
541620	Environmental Consulting Services	24.3%	75.7%	100.0%
541810	Advertising Agencies	21.1%	78.9%	100.0%
541820	Public Relations Agencies	44.7%	55.3%	100.0%
541890	Other Services Related to Advertising	31.4%	68.6%	100.0%
541910	Marketing Research and Public Opinion Polling	18.8%	81.3%	100.0%
561320	Temporary Help Services	25.4%	74.6%	100.0%
561612	Security Guards and Patrol Services	30.9%	69.1%	100.0%
561622	Locksmiths	14.3%	85.7%	100.0%
561710	Exterminating and Pest Control Services	11.2%	88.8%	100.0%
561720	Janitorial Services	27.4%	72.6%	100.0%
561730	Landscaping Services	15.3%	84.7%	100.0%
561920	Convention and Trade Show Organizers	42.0%	58.0%	100.0%
561990	All Other Support Services	7.1%	92.9%	100.0%
562111	Solid Waste Collection	55.6%	44.4%	100.0%
562910	Remediation Services	33.3%	66.7%	100.0%
562991	Septic Tank and Related Services	3.7%	96.3%	100.0%
611420	Computer Training	64.8%	35.2%	100.0%
611519	Other Technical and Trade Schools	25.9%	74.1%	100.0%
621498	All Other Outpatient Care Centers	4.6%	95.4%	100.0%
621999	All Other Miscellaneous Ambulatory Health Care Services	6.2%	93.8%	100.0%
711130	Musical Groups and Artists	11.2%	88.8%	100.0%
722320	Caterers	8.2%	91.8%	100.0%

NAICS	NAICS Code Description	M/W/DBE	Non-M/W/DBE	Total
811111	General Automotive Repair	3.6%	96.4%	100.0%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	5.6%	94.4%	100.0%
812320	Drycleaning and Laundry Services (except Coin-Operated)	10.0%	90.0%	100.0%
922130	Legal Counsel and Prosecution	13.6%	86.4%	100.0%
922190	Other Justice, Public Order, and Safety Activities	0.0%	100.0%	100.0%
Total		12.9%	87.1%	100.0%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

**Table 3-15: Share of MSCAA's Spending by NAICS Code
non-FAA Funded Contracts**

NAICS	NAICS Code Description	WEIGHT (Pct Share of Dollars)
115112	Soil Preparation, Planting, and Cultivating	0.1%
236210	Industrial Building Construction	0.8%
236220	Commercial and Institutional Building Construction	22.5%
237110	Water and Sewer Line and Related Structures Construction	0.4%
237130	Power and Communication Line and Related Structures Construction	0.1%
237310	Highway, Street, and Bridge Construction	5.7%
238120	Structural Steel and Precast Concrete Contractors	0.03%
238140	Masonry Contractors	0.8%
238150	Glass and Glazing Contractors	0.3%
238160	Roofing Contractors	2.0%
238210	Electrical Contractors and Other Wiring Installation Contractors	13.2%
238220	Plumbing, Heating, and Air-Conditioning Contractors	5.8%
238290	Other Building Equipment Contractors	2.0%
238310	Drywall and Insulation Contractors	1.0%
238320	Painting and Wall Covering Contractors	0.3%
238330	Flooring Contractors	0.4%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Dollars)
238340	Tile and Terrazzo Contractors	0.03%
238350	Finish Carpentry Contractors	0.1%
238390	Other Building Finishing Contractors	0.6%
238910	Site Preparation Contractors	5.0%
238990	All Other Specialty Trade Contractors	0.8%
315210	Cut and Sew Apparel Contractors	0.2%
321113	Sawmills	0.01%
323111	Commercial Printing (except Screen and Books)	0.01%
332321	Metal Window and Door Manufacturing	0.01%
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	0.02%
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	0.3%
423130	Tire and Tube Merchant Wholesalers	0.01%
423140	Motor Vehicle Parts (Used) Merchant Wholesalers	0.002%
423210	Furniture Merchant Wholesalers	0.04%
423220	Home Furnishing Merchant Wholesalers	0.01%
423330	Roofing, Siding, and Insulation Material Merchant Wholesalers	0.01%
423390	Other Construction Material Merchant Wholesalers	0.01%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	0.05%
423440	Other Commercial Equipment Merchant Wholesalers	0.01%
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0.3%
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0.1%
423690	Other Electronic Parts and Equipment Merchant Wholesalers	0.1%
423710	Hardware Merchant Wholesalers	0.03%
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	0.02%
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	0.1%
423740	Refrigeration Equipment and Supplies Merchant Wholesalers	0.01%
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	0.01%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Dollars)
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	0.7%
423830	Industrial Machinery and Equipment Merchant Wholesalers	0.6%
423840	Industrial Supplies Merchant Wholesalers	0.1%
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	0.04%
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	0.002%
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	0.01%
424130	Industrial and Personal Service Paper Merchant Wholesalers	0.3%
424210	Drugs and Druggists' Sundries Merchant Wholesalers	0.004%
424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers	0.002%
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers	0.3%
424340	Footwear Merchant Wholesalers	0.1%
424430	Dairy Product (except Dried or Canned) Merchant Wholesalers	0.02%
424690	Other Chemical and Allied Products Merchant Wholesalers	0.02%
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	0.9%
424910	Farm Supplies Merchant Wholesalers	0.01%
441110	New Car Dealers	0.1%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	0.02%
441310	Automotive Parts and Accessories Stores	0.002%
444190	Other Building Material Dealers	0.002%
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	0.002%
484210	Used Household and Office Goods Moving	0.05%
484220	Specialized Freight (except Used Goods) Trucking, Local	0.3%
485113	Bus and Other Motor Vehicle Transit Systems	0.03%
485310	Taxi Service	2.2%
488119	Other Airport Operations	4.8%
488490	Other Support Activities for Road Transportation	0.1%
512110	Motion Picture and Video Production	0.01%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Dollars)
515112	Radio Stations	0.002%
517312	Wireless Telecommunications Carriers (except Satellite)	0.003%
524113	Direct Life Insurance Carriers	0.2%
524128	Other Direct Insurance (except Life, Health, and Medical) Carriers	0.002%
524292	Third Party Administration of Insurance and Pension Funds	0.03%
531210	Offices of Real Estate Agents and Brokers	0.1%
531320	Offices of Real Estate Appraisers	0.05%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	0.02%
541110	Offices of Lawyers	0.9%
541211	Offices of Certified Public Accountants	0.2%
541219	Other Accounting Services	0.3%
541310	Architectural Services	2.3%
541330	Engineering Services	2.6%
541340	Drafting Services	0.001%
541370	Surveying and Mapping (except Geophysical) Services	0.1%
541380	Testing Laboratories	0.04%
541410	Interior Design Services	0.004%
541420	Industrial Design Services	0.001%
541511	Custom Computer Programming Services	0.4%
541613	Marketing Consulting Services	1.0%
541620	Environmental Consulting Services	0.1%
541810	Advertising Agencies	0.02%
541820	Public Relations Agencies	1.5%
541890	Other Services Related to Advertising	0.1%
541910	Marketing Research and Public Opinion Polling	0.03%
561320	Temporary Help Services	0.4%
561612	Security Guards and Patrol Services	0.5%
561622	Locksmiths	0.03%
561710	Exterminating and Pest Control Services	0.2%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Dollars)
561720	Janitorial Services	11.0%
561730	Landscaping Services	1.6%
561920	Convention and Trade Show Organizers	0.1%
561990	All Other Support Services	0.02%
562111	Solid Waste Collection	0.5%
562910	Remediation Services	0.4%
562991	Septic Tank and Related Services	0.01%
611420	Computer Training	0.02%
611519	Other Technical and Trade Schools	0.002%
621498	All Other Outpatient Care Centers	0.4%
621999	All Other Miscellaneous Ambulatory Health Care Services	0.03%
711130	Musical Groups and Artists	0.1%
722320	Caterers	0.1%
811111	General Automotive Repair	0.1%
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	0.004%
812320	Drycleaning and Laundry Services (except Coin-Operated)	0.1%
922130	Legal Counsel and Prosecution	0.8%
922190	Other Justice, Public Order, and Safety Activities	0.002%
Total		100.0%

Source: CHA analysis of MSCAA's Data.

We determined the aggregated availability of M/W/DBEs, weighted by the Authority's spending in its geographic and industry markets, to be 22.9% for MSCAA's non-FAA funded contracts. Table 3-16 presents the total weighted availability data for each of the racial and gender categories.

Table 3-16: Aggregated Weighted Availability for MSCAA's non-FAA Funded Contracts

Black	Hispanic	Asian	Native American	White Women	M/W/DBE	Non-M/W/DBE	Total
13.4%	0.9%	1.0%	0.4%	7.2%	22.9%	77.1%	100.0%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

4. Disparity Analysis for non-FAA Funded Contracts

To meet the strict scrutiny test for non-federally funded contracts that requires that all groups must have suffered discrimination in the Authority's markets to be eligible for credit towards meeting M/W/DBE contract goals, we next calculated disparity ratios comparing the Airport's utilization of M/W/DBEs as prime contractors and subcontractors to the availability of these firms in its market areas. A *disparity ratio* is the relationship between the utilization and weighted availability, determined above. Mathematically, this is represented by:

$$DR = U/WA * 100$$

Where DR is the disparity ratio; U is utilization rate; and WA is the weighted availability.

A "large" or "substantively significant" disparity is commonly defined by courts as utilization that is equal to or less than 80% of the availability measure. A substantively significant disparity supports the inference that the result may be caused by the disparate impacts of discrimination.⁵⁸ 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 C.

Table 3-17 presents these results for non-FAA funded contracts. The disparity ratios for Hispanics and Native Americans were substantively significant. The disparity ratios for White women, M/W/DBEs, and non-M/W/DBEs were statistically significant at the 0.001 level.

**Table 3-17: Disparity Ratios by Demographic Group
non-FAA Funded Contracts**

	Black	Hispanic	Asian	Native American	White Women	M/W/DBE	Non-M/W/DBE
Disparity Ratio	108.1%	76.9% [‡]	575.2%	36.2% [‡]	273.1%***	177.0%***	76.9%***

Source: CHA analysis of MSCAA's data; Hoovers; CHA Master Directory.

*** Indicates statistical significance at the 0.001 level

‡ Indicates substantive significance

58. 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.").

5. A More Detailed Analysis of Selected Disparity Ratios for non-FAA Funded Contracts

It is standard CHA practice to explore any M/WBE disparity ratio that exceeds 100%. This is to ensure that an abnormal pattern of M/WBE concentration does not account for disparity ratios greater than 100%, thereby leading to the unwarranted conclusion that race- or gender-conscious remedies are no longer needed to redress discrimination against a particular socially disadvantaged group. It is possible that a group's disparity ratio that is larger than 100% might be the result of the success of a few firms and not indicative of the experiences of the broad set of firms in that group. This exploration entails further examination of any NAICS codes where the NAICS codes share of overall spending is relatively high and the particular M/W/DBE utilization in that code is relatively high. With the Airport's data, the NAICS code share threshold was 4.8%. This threshold was selected because the seven NAICS codes at or above 4.8% captured 67.6% of all of the Airport's spending and of the remaining 110 NAICS codes, highest share of the Airport's spending was 2.6%.

Table 3-18 presents the seven codes where the weight of the Airport's spending was at least 4.8%. In terms of the deeper examination, while the disparity ratios for Black, Asian, and White Woman exceeded 100%, there is no need to explore all seven codes for these three groups because the level of utilization is extremely low. Among these codes: Black utilization was 0.0% in one of the codes; Asian utilization was 0.0% in four of the codes; and White woman utilization was 0.5% or less in three of the codes. Therefore, the remaining portion of this section will explore Black firm activity in six codes; Asian firm activity in three codes; and White woman firm activity in four codes. The results of this deeper examination are presented below.

Table 3-18: Targeted NAICS Codes for Further Exploration of M/WBE Contract Dollars

NAICS	NAICS Code Description	Weight in Each Code	Rank	M/WBE Utilization in Each Code		
				Black	Asian	White Woman
236220	Commercial and Institutional Building Construction	22.5%	1	5.0%	8.0%	19.1%
238210	Electrical Contractors and Other Wiring Installation Contractors	13.2%	2	23.9%	0.0%	29.0%
561720	Janitorial Services	11.0%	3	23.8%	0.0%	0.0%
238220	Plumbing, Heating, and Air-Conditioning Contractors	5.8%	4	12.4%	0.0%	58.2%

NAICS	NAICS Code Description	Weight in Each Code	Rank	M/WBE Utilization in Each Code		
				Black	Asian	White Woman
237310	Highway, Street, and Bridge Construction	5.7%	5	14.7%	14.7%	0.5%
238910	Site Preparation Contractors	5.0%	6	21.3%	46.5%	22.7%
488119	Other Airport Operations	4.8%	7	0.0%	0.0%	0.0%

Source: CHA analysis of MSCAA's data

Tables 3-19 through 3-25 present an analysis of the six NAICS codes selected to further explore the Black disparity ratio. Table 3-19 summarizes the information on these six codes first presented in Table 3-18.

Table 3-19: Targeted NAICS Codes for Further Exploration – Black

NAICS	NAICS Code Description	Weight	Overall Weight Rank	Black Utilization
236220	Commercial and Institutional Building Construction	22.5%	1	5.0%
238210	Electrical Contractors and Other Wiring Installation Contractors	13.2%	2	23.9%
561720	Janitorial Services	11.0%	3	23.8%
238220	Plumbing, Heating, and Air-Conditioning Contractors	5.8%	4	12.4%
237310	Highway, Street, and Bridge Construction	5.7%	5	14.7%
238910	Site Preparation Contractors	5.0%	6	21.3%

Source: CHA analysis of MSCAA data

In Table 3-20, we explore the levels of firm concentration NAICS code 236220 by examining several factors:

- The NAICS code's share of all the Airport spending with Black firms compared to the NAICS code's share of the Airport spending received by non-M/WBEs. This examines how important spending in the NAICS code was to the overall revenue received by Black firms compared to that same metric for non-M/WBEs. In a world where race and gender did not affect outcomes, the share would be similar.
- The number of Black firms that received contracts compared to the number of non-M/WBEs that received contracts.

- The share of Black contract dollars in each NAICS code received by the first, second, and third largest Black firms compared to the corresponding non-M/WBEs.
- The aggregate share of Black contract dollars received by the top three Black firms and the corresponding figure for non-M/WBEs.
- The aggregate share of Black contract dollars received by Black firms outside of the top three firms along with the corresponding figure for the non-M/WBEs outside of the top three.

These five metrics evaluate whether fewer Black firms received contracts compared to non-M/WBEs and whether the Black contract dollars were more concentrated compared to the level of concentration among non-M/WBEs. If either was the case, then the high level of utilization by Black firms (and hence, the high disparity ratio) resulted from the success of a few Black firms and not from a distribution across the entire spectrum of Black firms. This would be in contrast to a wider spectrum of success among non-M/WBE firms.

Examining Table 3-20, we find that three Black firms received contracts from the Airport for work in this code; in contrast, 12 non-M/WBE firms received contracts in this code. While three Black firms received all of the contract dollars received by Black firms, among non-M/WBE firms, the three leading non-M/WBE firms received 82.9% of the non-M/WBE dollars. Thus, we observe a greater degree of concentration among Black firms in this NAICS code compared to non-M/WBE firms.

Table 3-20: Comparing Black and non-M/WBE Outcomes
NAICS Code 236220: Commercial and Institutional Building Construction
(NAICS Code Weight of All the Airport Spending: 22.5%)

	Black	Non-M/WBE
NAICS code share of all spending	7.7%	25.4%
Number of firms	3	12
Share of group spending in NAICS code by the largest firm	45.5%	60.7%
Share of group spending in NAICS code by the second largest firm	35.5%	21.9%
Share of group spending in NAICS code by the third largest firm	19.0%	0.3%
Share of group spending in NAICS code by the three largest firms	100.0%	82.9%
Share of group spending in NAICS code by the remaining firms	0.0%	17.1%

Source: CHA analysis of MSCAA data

Extending that analysis to Table 3-21, we examined NAICS Code 238210. Here, three Black firms received contracts from the Airport for work in this code while 15 non-M/WBE firms received contracts in this code. Once again, three Black firms received all of the contract dollars received by Black firms, while the three leading non-M/WBE firms received 80.5% of the non-M/WBE dollars. As with NAICS code 236220, we observe a greater degree of concentration among Black firms in this NAICS code compared to non-M/WBE firms.

Table 3-21: Comparing Black and non-M/WBE Outcomes
NAICS Code 238210: Electrical Contractors and Other Wiring Installation Contractors
(NAICS Code Weight of All the Airport Spending: 13.2%)

	Black	Non-M/WBE
NAICS code share of all spending	21.4%	9.9%
Number of firms	3	15
Share of group spending in NAICS code by the largest firm	92.0%	53.9%
Share of group spending in NAICS code by the second largest firm	6.4%	16.1%
Share of group spending in NAICS code by the third largest firm	1.5%	10.5%
Share of group spending in NAICS code by the three largest firms	100.0%	80.5%
Share of group spending in NAICS code by the remaining firms	0.0%	19.5%

Source: CHA analysis of MSCAA data

Table 3-22 examines NAICS Code 561720. In this code, fewer firms (one Black; three non-M/WBE) received contracts. Still, we observed a greater degree of concentration among Black firms in this NAICS code compared to non-M/WBE firms, as the sole Black firm received all of the contract dollars received by Blacks and the leading non-M/WBE firm received just 56.3% of all non-M/WBE contract dollars.

Table 3-22: Comparing Black and non-M/WBE Outcomes
NAICS Code 561720: Janitorial Services
(NAICS Code Weight of All the Airport Spending: 11.0%)

	Black	Non-M/WBE
NAICS code share of all spending	17.8%	14.0%
Number of firms	1	3
Share of group spending in NAICS code by the largest firm	100.0%	56.3%

	Black	Non-M/WBE
Share of group spending in NAICS code by the second largest firm	0.0%	43.2%
Share of group spending in NAICS code by the third largest firm	0.0%	0.5%
Share of group spending in NAICS code by the three largest firms	100.0%	100.0%
Share of group spending in NAICS code by the remaining firms	0.0%	0.0%

Source: CHA analysis of MSCAA data

Table 3-23 presents these data for Black firms and non-M/WBE firms in NAICS Code 238220. Three Black firms received contracts for work in this code; in contrast, 26 non-M/WBE firms received contracts in this code. The three Black firms received all of the contract dollars received by Black firms; among non-M/WBE firms, the three leading non-M/WBE firms received 55.1% of the non-M/WBE dollars. Again, we observe a greater degree of concentration among Black firms in this NAICS code compared to non-M/WBE firms.

Table 3-23: Comparing Black and non-M/WBE Outcomes
NAICS Code 238220: Plumbing, Heating, and Air-Conditioning Contractors
(NAICS Code Weight of All the Airport Spending: 5.8%)

	Black	Non-M/WBE
NAICS code share of all spending	4.8%	2.8%
Number of firms	3	26
Share of group spending in NAICS code by the largest firm	55.2%	28.4%
Share of group spending in NAICS code by the second largest firm	24.3%	15.9%
Share of group spending in NAICS code by the third largest firm	20.5%	10.8%
Share of group spending in NAICS code by the three largest firms	100.0%	55.1%
Share of group spending in NAICS code by the remaining firms	0.0%	44.9%

Source: CHA analysis of MSCAA data

Table 3-24 examines NAICS Code 237310. Here, the three leading Black firms received 96.9% of all contract dollars received by Black firms. In this codes, the leading three non-M/WBE firms received a similar share – 93.3%. What makes the activity in this code slightly more concentrated among Black firms relative to non-M/WBE firms is the remaining share of group contract dollars is distrib-

uted among a smaller number of firms for Blacks (one) compared to non-M/WBEs (nine).

Table 3-24: Comparing Black and non-M/WBE Outcomes
NAICS Code 237310: Highway, Street, and Bridge Construction
(NAICS Code Weight of All the Airport Spending: 5.7%)

	Black	Non-M/WBE
NAICS code share of all spending	5.7%	6.6%
Number of firms	4	12
Share of group spending in NAICS code by the largest firm	42.6%	85.8%
Share of group spending in NAICS code by the second largest firm	35.1%	5.1%
Share of group spending in NAICS code by the third largest firm	19.2%	2.4%
Share of group spending in NAICS code by the three largest firms	96.9%	93.3%
Share of group spending in NAICS code by the remaining firms	3.1%	6.7%

Source: CHA analysis of MSCAA data

Table 3-25 examines NAICS Code 23910. Here, the three leading Black firms received smaller share of all contract dollars received by Black firms relative to non-M/WBEs. This is the only code among the six codes examined where this occurred.

Table 3-25: Comparing Black and non-M/WBE Outcomes
NAICS Code 238910: Site Preparation Contractors
(NAICS Code Weight of All the Airport Spending: 5.0%)

	Black	Non-M/WBE
NAICS code share of all spending	7.3%	0.8%
Number of firms	5	8
Share of group spending in NAICS code by the largest firm	37.9%	49.9%
Share of group spending in NAICS code by the second largest firm	20.5%	33.2%
Share of group spending in NAICS code by the third largest firm	16.4%	5.7%
Share of group spending in NAICS code by the three largest firms	74.8%	88.8%
Share of group spending in NAICS code by the remaining firms	25.2%	11.2%

Source: CHA analysis of MSCAA data

The approach used to examine the Black disparity ratio was also used for the disparity ratios for Asian (Tables 3-26 through 3-29) and White Woman firms (Tables 3-30 through 3-34).

Table 3-26 presents the three NAICS codes selected to further explore the Asian disparity ratio.

Table 3-26: Targeted NAICS Codes for Further Exploration – Asian

NAICS	NAICS Code Description	Weight	Overall Weight Rank	Asian Utilization
236220	Commercial and Institutional Building Construction	22.5%	1	8.0%
237310	Highway, Street, and Bridge Construction	5.7%	5	14.7%
238910	Site Preparation Contractors	5.0%	6	46.5%

Source: CHA analysis of MSCAA data

Tables 3-27 – 3-29 present the detailed data for these three codes. What is unusual is that while several non-M/WBE firms received contracts in each of these codes, only one Asian firm received a contract in these codes. In fact, the same Asian firm was awarded the sole contract in each code. This is a high level of concentration that was not seen in any other codes or for any other group: one firm received 89.2% of all contract dollars received by Asian firms.

Table 3-27: Comparing Asian and non-M/WBE Outcomes
NAICS Code 236220: Commercial and Institutional Building Construction
(NAICS Code Weight of All the Airport Spending: 22.5%)

	Asian	Non-M/WBE
NAICS code share of all spending	32.2%	25.4%
Number of firms	1	12
Share of group spending in NAICS code by the largest firm	100.0%	60.7%
Share of group spending in NAICS code by the second largest firm	0.0%	21.9%
Share of group spending in NAICS code by the third largest firm	0.0%	0.3%
Share of group spending in NAICS code by the three largest firms	100.0%	82.9%
Share of group spending in NAICS code by the remaining firms	0.0%	17.1%

Source: CHA analysis of MSCAA data

**Table 3-28: Comparing Asian and non-M/WBE Outcomes
NAICS Code 237310: Highway, Street, and Bridge Construction
(NAICS Code Weight of All the Airport Spending: 5.7%)**

	Asian	Non-M/WBE
NAICS code share of all spending	14.9%	6.6%
Number of firms	1	12
Share of group spending in NAICS code by the largest firm	100.0%	85.8%
Share of group spending in NAICS code by the second largest firm	0.0%	5.1%
Share of group spending in NAICS code by the third largest firm	0.0%	2.4%
Share of group spending in NAICS code by the three largest firms	100.0%	93.3%
Share of group spending in NAICS code by the remaining firms	0.0%	6.7%

Source: CHA analysis of MSCAA data

**Table 3-29: Comparing Asian and non-M/WBE Outcomes
NAICS Code 238910: Plumbing, Heating, and Air-Conditioning Contractors
(NAICS Code Weight of All the Airport Spending: 5.0%)**

	Asian	Non-M/WBE
NAICS code share of all spending	42.1%	0.8%
Number of firms	1	8
Share of group spending in NAICS code by the largest firm	100.0%	49.9%
Share of group spending in NAICS code by the second largest firm	0.0%	33.2%
Share of group spending in NAICS code by the third largest firm	0.0%	5.7%
Share of group spending in NAICS code by the three largest firms	100.0%	88.8%
Share of group spending in NAICS code by the remaining firms	0.0%	11.2%

Source: CHA analysis of MSCAA data

Table 3-30 presents the four NAICS codes selected to further explore the White woman disparity ratio.

Table 3-30: Targeted NAICS Codes for Further Exploration – White Woman

NAICS	NAICS Code Description	Weight	Overall Weight Rank	White Woman Utilization
236220	Commercial and Institutional Building Construction	22.5%	1	19.1%
238210	Electrical Contractors and Other Wiring Installation Contractors	13.2%	2	29.0%
238220	Plumbing, Heating, and Air-Conditioning Contractors	5.8%	4	58.2%
238910	Site Preparation Contractors	5.0%	6	22.7%

Source: CHA analysis of MSCAA data

Table 3-31 presents these data for White woman firms and non-M/WBEs firms in NAICS Code 236220. Three White woman firms received contracts for work in this code; in contrast, 12 non-M/WBE firms received contracts in this code. While three White woman firms received all of the contract dollars received by White woman firms, among non-M/WBE firms, the three leading non-M/WBE firms received 82.9% of the non-M/WBE dollars. Thus, we observe a greater degree of concentration among White woman firms in this NAICS code compared to non-M/WBE firms.

Table 3-31: Comparing White Woman and non-M/WBE Outcomes
NAICS Code 236220: Commercial and Institutional Building Construction
(NAICS Code Weight of All the Airport Spending: 22.5%)

	White Woman	Non-M/WBE
NAICS code share of all spending	21.9%	25.4%
Number of firms	3	12
Share of group spending in NAICS code by the largest firm	45.5%	60.7%
Share of group spending in NAICS code by the second largest firm	35.5%	21.9%
Share of group spending in NAICS code by the third largest firm	19.0%	0.3%
Share of group spending in NAICS code by the three largest firms	100.0%	82.9%
Share of group spending in NAICS code by the remaining firms	0.0%	17.1%

Source: CHA analysis of MSCAA data

Table 3-32 examines NAICS Code 238210. Here, the three leading White woman firms received 43.1% of all contract dollars received by White woman firms. In this code, the leading three non-M/WBE firms received a similar share – 53.9%. However, the remaining share of group contract dollars is distributed among a smaller number of firms for White woman firms (six) compared to non-M/WBEs (12).

Table 3-32: Comparing White Woman and non-M/WBE Outcomes
NAICS Code 238210: Electrical Contractors and Other Wiring Installation Contractors
(NAICS Code Weight of All the Airport Spending: 13.2%)

	White Woman	Non-M/WBE
NAICS code share of all spending	19.5%	9.9%
Number of firms	9	15
Share of group spending in NAICS code by the largest firm	43.1%	53.9%
Share of group spending in NAICS code by the second largest firm	22.3%	16.1%
Share of group spending in NAICS code by the third largest firm	22.0%	10.5%
Share of group spending in NAICS code by the three largest firms	87.3%	80.5%
Share of group spending in NAICS code by the remaining firms	12.7%	19.5%

Source: CHA analysis of MSCAA data

Table 3-33 presents these data for White woman firms and non-M/WBE firms in NAICS Code 238220. The three leading White woman firms received 99.8% of the contract dollars received by White woman firms; among non-M/WBE firms, the three leading non-M/WBE firms received 55.1% of the non-M/WBE dollars. Again, we observe a greater degree of concentration among White woman firms in this NAICS code compared to non-M/WBE firms.

Table 3-33: Comparing White Woman and non-M/WBE Outcomes
NAICS Code 238220: Plumbing, Heating, and Air-Conditioning Contractors
(NAICS Code Weight of All the Airport Spending: 5.8%)

	White Woman	Non-M/WBE
NAICS code share of all spending	17.1%	2.8%
Number of firms	4	26
Share of group spending in NAICS code by the largest firm	70.9%	28.4%
Share of group spending in NAICS code by the second largest firm	25.5%	15.9%

	White Woman	Non-M/WBE
Share of group spending in NAICS code by the third largest firm	3.5%	10.8%
Share of group spending in NAICS code by the three largest firms	99.8%	55.1%
Share of group spending in NAICS code by the remaining firms	0.2%	44.9%

Source: CHA analysis of MSCAA data

Table 3-34 examines NAICS Code 238910. Here, two White woman firms received contracts for work in this code while eight non-M/WBE firms received contracts in this code. While the two White woman firms received all of the contract dollars received by White woman firms, the three leading non-M/WBE firms received 88.8% of the non-M/WBE dollars. Once again, we observe a greater degree of concentration among White woman firms in this NAICS code compared to non-M/WBE firms.

Table 3-34: Comparing White Women and non-M/WBE Outcomes
NAICS Code 238910: Site Preparation Contractors
(NAICS Code Weight of All the Airport Spending: 5.0%)

	White Woman	Non-M/WBE
NAICS code share of all spending	5.8%	0.8%
Number of firms	2	8
Share of group spending in NAICS code by the largest firm	99.9%	49.9%
Share of group spending in NAICS code by the second largest firm	0.1%	33.2%
Share of group spending in NAICS code by the third largest firm		5.7%
Share of group spending in NAICS code by the three largest firms	100.0%	88.8%
Share of group spending in NAICS code by the remaining firms	0.0%	11.2%

Source: CHA analysis of MSCAA data

In summary, for Blacks, Asians and White women, the level of concentration might explain the groups' disparity ratio. This is most certainly true for the Asian disparity ratio as one firm received the vast majority of Asian contract dollars for all codes and any perceived "high" level of Asian utilization is a function of the success of one firm and not greater opportunities for Asian firms as a group.

D. Utilization and Availability Analysis for non-Car Rental Concessions Contracts

1. The Product and Geographic Markets for MSCAA's non-Car Rental Concessions Contracts

We performed a similar analysis to determine the product and geographic market and utilization for non-car rental concession contracts as was performed for our analysis of these issues for FAA funded and non-FAA funded contracts.

2. The Final Contract Data File Representing for MSCAA's non-Car Rental Concession Contracts

We began our analysis with the 20 NAICS codes contained in the Airport's set of non-car rental concession contracts. Table 3-35 presents these data.

**Table 3-35: Industry Percentage Distribution of Contracts by Gross Receipts
non-Car Rental Concessions Contracts**

NAICS	NAICS Code Description	Pct Total Gross Receipts	Cumulative Pct Total Gross Receipts
722310	Food Service Contractors	52.3%	52.3%
453220	Gift, Novelty, and Souvenir Stores	23.5%	75.8%
812930	Parking Lots and Garages	9.0%	84.8%
424920	Book, Periodical, and Newspaper Merchant Wholesalers	8.0%	92.9%
524210	Insurance Agencies and Brokerages	4.1%	96.9%
485310	Taxi Service	0.5%	97.5%
454390	Other Direct Selling Establishments	0.4%	97.9%
523130	Commodity Contracts Dealing	0.4%	98.3%
446130	Optical Goods Stores	0.4%	98.7%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	0.3%	99.0%
522110	Commercial Banking	0.3%	99.3%
721110	Hotels (except Casino Hotels) and Motels	0.2%	99.5%
522130	Credit Unions	0.2%	99.7%

NAICS	NAICS Code Description	Pct Total Gross Receipts	Cumulative Pct Total Gross Receipts
561720	Janitorial Services	0.1%	99.9%
812990	All Other Personal Services	0.1%	99.9%
515210	Cable and Other Subscription Programming	0.04%	99.97%
561499	All Other Business Support Services	0.01%	99.99%
812112	Beauty Salons	0.01%	99.99%
485113	Bus and Other Motor Vehicle Transit Systems	0.004%	99.998%
485320	Limousine Service	0.002%	100.0%
TOTAL			100.0%

Source: CHA analysis of MSCAA's Data.

3. MSCAA's Geographic Market for non-Car Rental Concession Contracts

Shelby and DeSoto counties captured just over 94% of the FCDF dollars and therefore comprised the geographic market for the analysis of MSCAA's non-car rental concession contracts. Table 3-36 lists how these dollars were distributed across these two counties.

Table 3-36: Distribution of Contracts in MSCAA's Geographical Market for non-Car Rental Concession Contracts

County	Pct Total Gross Receipts
Shelby County, TN	94.1%
DeSoto County, MS	0.003%

Source: CHA analysis of MSCAA's Data.

4. The Utilization of ACDBEs on MSCAA's non-Car Rental Concession Contracts

Having determined the Authority's product and geographic market area (and, therefore, the agency's *constrained* product market), the next step was to determine the dollar value of MSCAA's utilization of ACDBEs as measured by payments to concessionaires.

Limiting the unconstrained product market to the boundaries of those two counties reduced the number of NAICS codes further analyzed for these contracts to 16.

Tables 3-37 through 4-39 present data on the utilization of total gross receipts in the constrained product market. (Note the dollar shares in Table 3-37 are equivalent to the weight of receipts in each NAICS code. These weights were used to transform data from unweighted availability to weighted availability, as discussed below).

**Table 3-37: NAICS Code Distribution of MSCAA Gross Receipts
non-Car Rental Concessions Contracts**

NAICS	NAICS Code Description	Total Gross Receipts	Pct Total Gross Receipts
722310	Food Service Contractors	\$73,877,304.00	50.8%
453220	Gift, Novelty, and Souvenir Stores	\$36,285,456.00	25.0%
812930	Parking Lots and Garages	\$13,966,462.00	9.6%
424920	Book, Periodical, and Newspaper Merchant Wholesalers	\$12,415,229.00	8.5%
524210	Insurance Agencies and Brokerages	\$6,274,414.00	4.3%
485310	Taxi Service	\$847,546.00	0.6%
446130	Optical Goods Stores	\$581,142.38	0.4%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	\$522,287.91	0.4%
522130	Credit Unions	\$313,861.75	0.2%
561720	Janitorial Services	\$188,062.00	0.1%
522110	Commercial Banking	\$104,000.00	0.1%
812112	Beauty Salons	\$13,900.00	0.01%
812990	All Other Personal Services	\$10,000.00	0.01%
485113	Bus and Other Motor Vehicle Transit Systems	\$5,125.00	0.004%
485320	Limousine Service	\$2,875.00	0.002%
Total		\$145,407,665.04	100.0%

Source: CHA analysis of MSCAA's Data.

**Table 3-38a: Distribution of MSCAA Gross Receipts by Race and Gender
(dollars)
non-Car Rental Concessions Contracts**

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
424920	Book, Periodical, and Newspaper Merchant Wholesalers	\$3,103,807	\$0	\$0	\$0	\$0
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	\$130,572	\$0	\$0	\$0	\$0
446130	Optical Goods Stores	\$145,286	\$0	\$0	\$0	\$0
453220	Gift, Novelty, and Souvenir Stores	\$9,071,364	\$0	\$0	\$0	\$0
485113	Bus and Other Motor Vehicle Transit Systems	\$0	\$0	\$5,125	\$0	\$0
485310	Taxi Service	\$110,728	\$0	\$425,072	\$0	\$0
485320	Limousine Service	\$0	\$0	\$0	\$0	\$0
522110	Commercial Banking	\$0	\$0	\$0	\$0	\$0
522130	Credit Unions	\$0	\$0	\$0	\$0	\$0
524210	Insurance Agencies and Brokerages	\$0	\$0	\$0	\$0	\$6,274,414
561720	Janitorial Services	\$188,062	\$0	\$0	\$0	\$0
722310	Food Service Contractors	\$14,287,243	\$0	\$0	\$0	\$49,147,795
812112	Beauty Salons	\$13,900	\$0	\$0	\$0	\$0
812930	Parking Lots and Garages	\$0	\$9,203,492	\$0	\$0	\$0
812990	All Other Personal Services	\$10,000	\$0	\$0	\$0	\$0
Total		\$27,060,962	\$9,203,492	\$430,197	\$0	\$55,422,209

Source: CHA analysis of MSCAA's Data.

**Table 3-38b: Distribution of MSCAA Gross Receipts by Race and Gender (cont.)
(dollars)
non-Car Rental Concessions Contracts**

NAICS	NAICS Code Description	ACDBE	Non-ACDBE	Total
424920	Book, Periodical, and Newspaper Merchant Wholesalers	\$3,103,807	\$9,311,422	\$12,415,229
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	\$130,572	\$391,716	\$522,288
446130	Optical Goods Stores	\$145,286	\$435,857	\$581,142

NAICS	NAICS Code Description	ACDBE	Non-ACDBE	Total
453220	Gift, Novelty, and Souvenir Stores	\$9,071,364	\$27,214,093	\$36,285,457
485113	Bus and Other Motor Vehicle Transit Systems	\$5,125	\$0	\$5,125
485310	Taxi Service	\$535,800	\$311,746	\$847,546
485320	Limousine Service	\$0	\$2,875	\$2,875
522110	Commercial Banking	\$0	\$104,000	\$104,000
522130	Credit Unions	\$0	\$313,862	\$313,862
524210	Insurance Agencies and Brokerages	\$6,274,414	\$0	\$6,274,414
561720	Janitorial Services	\$188,062	\$0	\$188,062
722310	Food Service Contractors	\$63,435,038	\$10,442,267	\$73,877,305
812112	Beauty Salons	\$13,900	\$0	\$13,900
812930	Parking Lots and Garages	\$9,203,492	\$4,762,970	\$13,966,462
812990	All Other Personal Services	\$10,000	\$0	\$10,000
Total		\$92,116,860	\$53,290,807	\$145,407,667

Source: CHA analysis of MSCAA's Data.

**Table 3-39a: Distribution of MSCAA Gross Receipts by Race and Gender
(share of dollars)**

non-Car Rental Concessions Contracts

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
424920	Book, Periodical, and Newspaper Merchant Wholesalers	25.0%	0.0%	0.0%	0.0%	0.0%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	25.0%	0.0%	0.0%	0.0%	0.0%
446130	Optical Goods Stores	25.0%	0.0%	0.0%	0.0%	0.0%
453220	Gift, Novelty, and Souvenir Stores	25.0%	0.0%	0.0%	0.0%	0.0%
485113	Bus and Other Motor Vehicle Transit Systems	0.0%	0.0%	100.0%	0.0%	0.0%
485310	Taxi Service	13.1%	0.0%	50.2%	0.0%	0.0%
485320	Limousine Service	0.0%	0.0%	0.0%	0.0%	0.0%
522110	Commercial Banking	0.0%	0.0%	0.0%	0.0%	0.0%
522130	Credit Unions	0.0%	0.0%	0.0%	0.0%	0.0%

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
524210	Insurance Agencies and Brokerages	0.0%	0.0%	0.0%	0.0%	100.0%
561720	Janitorial Services	100.0%	0.0%	0.0%	0.0%	0.0%
722310	Food Service Contractors	19.3%	0.0%	0.0%	0.0%	66.5%
812112	Beauty Salons	100.0%	0.0%	0.0%	0.0%	0.0%
812930	Parking Lots and Garages	0.0%	65.9%	0.0%	0.0%	0.0%
812990	All Other Personal Services	100.0%	0.0%	0.0%	0.0%	0.0%
Total		18.6%	6.3%	0.3%	0.0%	38.1%

Source: CHA analysis of MSCAA's Data.

Table 3-39b: Distribution of MSCAA Gross Receipts by Race and Gender (cont.)
(share of dollars)
non-Car Rental Concessions Contracts

NAICS	NAICS Code Description	ACDBE	Non-ACDBE	Total
424920	Book, Periodical, and Newspaper Merchant Wholesalers	25.0%	75.0%	100.0%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	25.0%	75.0%	100.0%
446130	Optical Goods Stores	25.0%	75.0%	100.0%
453220	Gift, Novelty, and Souvenir Stores	25.0%	75.0%	100.0%
485113	Bus and Other Motor Vehicle Transit Systems	100.0%	0.0%	100.0%
485310	Taxi Service	63.2%	36.8%	100.0%
485320	Limousine Service	0.0%	100.0%	100.0%
522110	Commercial Banking	0.0%	100.0%	100.0%
522130	Credit Unions	0.0%	100.0%	100.0%
524210	Insurance Agencies and Brokerages	100.0%	0.0%	100.0%
561720	Janitorial Services	100.0%	0.0%	100.0%
722310	Food Service Contractors	85.9%	14.1%	100.0%
812112	Beauty Salons	100.0%	0.0%	100.0%
812930	Parking Lots and Garages	65.9%	34.1%	100.0%
812990	All Other Personal Services	100.0%	0.0%	100.0%
Total		63.4%	36.6%	100.0%

Source: CHA analysis of MSCAA's Data.

5. The Availability of ACDBEs in MSCAA's non-Car Rental Concession Contracts Geographic and Product Market

As with the FAA and non-FAA funded contracts, we estimated the availability of ACDBEs in MSCAA's market area. These availability estimates are compared to the utilization percentage of gross receipts received by ACDBEs to examine whether minority- and woman-owned firms are at parity. Availability estimates are also crucial for the Authority to set narrowly tailored annual and contract goals on contracts covered by its ACDBE program.

As with the other types of contracts, we generally applied the "custom census" approach with refinements to estimating availability.

Tables 3-40 through 3-42 present data on:

- The unweighted availability by race and gender, and by NAICS codes for contracts in the Airport's constrained product markets;
- The weights used to adjust the unweighted numbers;⁵⁹ and
- The final estimates of the weighted averages of the individual six-digit NAICS code level availability estimates in the Airport's market areas.

The weighted availability estimates can be used by the Airport to set its triennial ACDBE goal. The unweighted availability estimates can be used to set ACDBE contract goals.

**Table 3-40a: Unweighted Availability for MSCAA's Contracts
non-Car Rental Concessions Contracts**

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
424920	Book, Periodical, and Newspaper Merchant Wholesalers	4.4%	0.0%	0.0%	0.0%	2.2%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	0.9%	0.0%	0.0%	0.0%	1.7%
446130	Optical Goods Stores	1.7%	0.0%	0.0%	0.0%	8.5%
453220	Gift, Novelty, and Souvenir Stores	3.2%	0.0%	0.4%	0.0%	12.4%
485113	Bus and Other Motor Vehicle Transit Systems	42.9%	0.0%	28.6%	0.0%	0.0%
485310	Taxi Service	19.4%	0.0%	12.9%	0.0%	0.0%
485320	Limousine Service	26.2%	0.0%	0.0%	0.0%	4.8%
522110	Commercial Banking	0.6%	0.0%	0.0%	0.0%	0.0%

59. These weights are equivalent to the share of contract dollars presented in the previous section.

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
522130	Credit Unions	0.0%	0.0%	0.0%	0.0%	0.0%
524210	Insurance Agencies and Brokerages	1.3%	0.0%	0.0%	0.0%	4.5%
561720	Janitorial Services	18.9%	0.6%	0.3%	0.0%	7.7%
722310	Food Service Contractors	40.7%	0.0%	0.0%	0.0%	3.7%
812112	Beauty Salons	1.2%	0.0%	0.0%	0.0%	18.1%
812930	Parking Lots and Garages	3.1%	6.3%	0.0%	0.0%	3.1%
812990	All Other Personal Services	5.3%	0.3%	0.0%	0.3%	8.7%
Total		5.0%	0.2%	0.2%	0.0%	8.7%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

**Table 3-40b: Unweighted Availability for MSCAA's Contracts
non-Car Rental Concessions Contracts**

NAICS	NAICS Code Description	ACDBE	Non-ACDBE	Total
424920	Book, Periodical, and Newspaper Merchant Wholesalers	6.7%	93.3%	100.0%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	2.6%	97.4%	100.0%
446130	Optical Goods Stores	10.2%	89.8%	100.0%
453220	Gift, Novelty, and Souvenir Stores	16.0%	84.0%	100.0%
485113	Bus and Other Motor Vehicle Transit Systems	71.4%	28.6%	100.0%
485310	Taxi Service	32.3%	67.7%	100.0%
485320	Limousine Service	31.0%	69.0%	100.0%
522110	Commercial Banking	0.6%	99.4%	100.0%
522130	Credit Unions	0.0%	100.0%	100.0%
524210	Insurance Agencies and Brokerages	5.7%	94.3%	100.0%
561720	Janitorial Services	27.6%	72.4%	100.0%
722310	Food Service Contractors	44.4%	55.6%	100.0%
812112	Beauty Salons	19.3%	80.7%	100.0%
812930	Parking Lots and Garages	12.5%	87.5%	100.0%
812990	All Other Personal Services	14.6%	85.4%	100.0%
Total		14.1%	85.9%	100.0%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

**Table 3-41: Share of MSCAA's Spending on MSCAA's Contracts by NAICS Code
non-Car Rental Concessions Contracts**

NAICS	NAICS Code Description	WEIGHT (Pct Share of Gross Receipts)
424920	Book, Periodical, and Newspaper Merchant Wholesalers	8.0%
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	0.3%
446130	Optical Goods Stores	0.4%
453220	Gift, Novelty, and Souvenir Stores	23.5%
454390	Other Direct Selling Establishments	0.4%
485113	Bus and Other Motor Vehicle Transit Systems	0.004%
485310	Taxi Service	0.5%
485320	Limousine Service	0.002%
515210	Cable and Other Subscription Programming	0.04%
522110	Commercial Banking	0.3%
522130	Credit Unions	0.2%
523130	Commodity Contracts Dealing	0.4%
524210	Insurance Agencies and Brokerages	4.1%
561499	All Other Business Support Services	0.01%
561720	Janitorial Services	0.1%
721110	Hotels (except Casino Hotels) and Motels	0.2%
722310	Food Service Contractors	52.3%
812112	Beauty Salons	0.01%
812930	Parking Lots and Garages	9.0%
812990	All Other Personal Services	0.1%
Total		100.0%

Source: CHA analysis of MSCAA's Data.

We next determined the aggregated availability of ACDBEs for MSCAA contracts, weighted by the Authority's spending in its geographic and industry markets, to be 28.9%. Table 3-42 presents the total weighted availability data for each of the racial and gender categories.

**Table 3-42: Aggregated Weighted Availability for MSCAA's Contracts
non-Car Rental Concessions Contracts**

Black	Hispanic	Asian	Native American	White Women	ACDBE	Non-ACDBE	Total
22.4%	0.6%	0.2%	0.0%	5.7%	28.9%	71.1%	100.0%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

E. Utilization and Availability Analysis for MSCAA's Car Rental Contracts

1. The Product and Geographic Markets for the MSCAA's Car Rental Contracts

We performed a similar analysis to determine the product and geographic market and utilization for car rental concession contracts as was performed for our analysis of FAA funded and non-FAA funded contracts and non-car rental contracts.

2. The Unconstrained Product Market for MSCAA's Car Rental Contracts

We analyzed all seven NAICS codes contained in the Airport's set of car rental contracts. Table 3-43 presents these data.

**Table 3-43: Industry Percentage Distribution of MSCAA's Car Rental Contracts
by Gross Receipts**

NAICS	NAICS Code Description	Pct Total Gross Receipts	Cumulative Pct Total Gross Receipts
532111	Passenger Car Rental	99.2%	99.2%
524210	Insurance Agencies and Brokerages	0.8%	99.96%
561720	Janitorial Services	0.02%	99.98%
561622	Locksmiths	0.01%	99.99%
811192	Car Washes	0.01%	99.999%
488410	Motor Vehicle Towing	0.001%	99.9998%
541890	Other Services Related to Advertising	0.0002%	100.0000%
TOTAL			100.0%

Source: CHA analysis of the MSCAA's Data.

3. MSCAA's Geographic Market for Car Rental Contracts

All of the gross receipts were received by firms located in Shelby County. Therefore, for this analysis, Shelby County was the geographic market.

4. The Utilization of ACDBEs on MSCAA's Car Rental Contracts

The next step was to determine the dollar value of MSCAA's utilization of ACDBEs as measured by gross receipts to concessionaires.

Since Shelby County firms received all of the car rental receipts, there was no need to further restrict the data by geography. Therefore, the unconstrained data set was identical to the constrained data set and the number of relevant NAICS codes remained at seven.

Tables 3-44 through 3-46 present data on the total gross receipts in the constrained product market. (Note the gross receipt shares in Table 3-44 are equivalent to the weight of spending in each NAICS code. These weights were used to transform data from unweighted availability to weighted availability, as discussed below).

**Table 3-44: NAICS Code Distribution of MSCAA Gross Receipts
Car Rental Contracts**

NAICS	NAICS Code Description	Total Gross Receipts	Pct Total Gross Receipts
532111	Passenger Car Rental	\$485,854,816.00	99.2%
524210	Insurance Agencies and Brokerages	\$3,846,058.25	0.8%
561720	Janitorial Services	\$101,020.94	0.02%
561622	Locksmiths	\$48,437.42	0.01%
811192	Car Washes	\$42,867.53	0.01%
488410	Motor Vehicle Towing	\$4,393.00	0.001%
541890	Other Services Related to Advertising	\$927.45	0.0002%
Total		\$489,898,520.59	100.0%

Source: CHA analysis of MSCAA's Data.

Table 3-45a: Distribution of MSCAA Car Rental Gross Receipts by Race and Gender
(dollars)

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
488410	Motor Vehicle Towing	\$4,393	\$0	\$0	\$0	\$0
524210	Insurance Agencies and Brokerages	\$0	\$0	\$0	\$0	\$3,846,058
532111	Passenger Car Rental	\$0	\$0	\$0	\$0	\$0
541890	Other Services Related to Advertising	\$0	\$0	\$0	\$0	\$927
561622	Locksmiths	\$0	\$0	\$0	\$0	\$48,437
561720	Janitorial Services	\$101,021	\$0	\$0	\$0	\$0
811192	Car Washes	\$42,868	\$0	\$0	\$0	\$0
Total		\$148,281	\$0	\$0	\$0	\$3,895,423

Source: CHA analysis of the MSCAA's Data.

Table 3-45b: Distribution of MSCAA Car Rental Gross Receipts by Race and Gender (cont.)
(dollars)

NAICS	NAICS Code Description	ACDBE	Non-ACDBE	Total
488410	Motor Vehicle Towing	\$4,393	\$0	\$4,393
524210	Insurance Agencies and Brokerages	\$3,846,058	\$0	\$3,846,058
532111	Passenger Car Rental	\$0	\$485,854,828	\$485,854,828
541890	Other Services Related to Advertising	\$927	\$0	\$927
561622	Locksmiths	\$48,437	\$0	\$48,437
561720	Janitorial Services	\$101,021	\$0	\$101,021
811192	Car Washes	\$42,868	\$0	\$42,868
Total		\$4,043,704	\$485,854,828	\$489,898,533

Source: CHA analysis of the MSCAA's Data.

Table 3-46a: Distribution of MSCAA Car Rental Gross Receipts by Race and Gender
(share of dollars)

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
488410	Motor Vehicle Towing	100.00%	0.0%	0.0%	0.0%	0.0%
524210	Insurance Agencies and Brokerages	0.00%	0.0%	0.0%	0.0%	100.0%
532111	Passenger Car Rental	0.00%	0.0%	0.0%	0.0%	0.0%
541890	Other Services Related to Advertising	0.00%	0.0%	0.0%	0.0%	100.0%
561622	Locksmiths	0.00%	0.0%	0.0%	0.0%	100.0%
561720	Janitorial Services	100.00%	0.0%	0.0%	0.0%	0.0%
811192	Car Washes	100.00%	0.0%	0.0%	0.0%	0.0%
Total		0.03%	0.0%	0.0%	0.0%	0.8%

Source: CHA analysis of MSCAA's Data.

Table 3-46b: Distribution of MSCAA Car Rental Gross Receipts by Race and Gender (cont.)
(share of dollars)

NAICS	NAICS Code Description	ACDBE	Non-ACDBE	Total
488410	Motor Vehicle Towing	100.0%	0.0%	100.0%
524210	Insurance Agencies and Brokerages	100.0%	0.0%	100.0%
532111	Passenger Car Rental	0.0%	100.0%	100.0%
541890	Other Services Related to Advertising	100.0%	0.0%	100.0%
561622	Locksmiths	100.0%	0.0%	100.0%
561720	Janitorial Services	100.0%	0.0%	100.0%
811192	Car Washes	100.0%	0.0%	100.0%
Total		0.8%	99.2%	100.0%

Source: CHA analysis of MSCAA's Data.

5. The Availability of ACDBEs in MSCAA's Constrained Car Rental Market

We estimated the availability of ACDBEs in MSCAA's car rental market area the same way we analyzed the other types of MSCAA contracts. The weighted availability estimates can be used by the Airport to set its triennial ACDBE goal.

Table 3-47a: Unweighted Availability for MSCAA's Car Rental Contracts

NAICS	NAICS Code Description	Black	Hispanic	Asian	Native American	White Women
488410	Motor Vehicle Towing	2.0%	0.0%	0.0%	0.0%	4.1%
524210	Insurance Agencies and Brokerages	1.3%	0.0%	0.0%	0.0%	4.5%
532111	Passenger Car Rental	1.4%	0.0%	0.0%	0.0%	1.4%
541890	Other Services Related to Advertising	4.7%	0.0%	0.0%	0.0%	34.9%
561622	Locksmiths	4.1%	0.0%	0.0%	0.0%	10.2%
561720	Janitorial Services	19.0%	0.6%	0.3%	0.0%	7.7%
811192	Car Washes	4.8%	0.0%	0.0%	0.0%	2.7%
Total		7.3%	0.2%	0.1%	0.0%	6.0%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

Table 3-47b: Unweighted Availability for MSCAA's Car Rental Contracts

NAICS	NAICS Code Description	ACDBE	Non-ACDBE	Total
488410	Motor Vehicle Towing	6.1%	93.9%	100.0%
524210	Insurance Agencies and Brokerages	5.7%	94.3%	100.0%
532111	Passenger Car Rental	2.8%	97.2%	100.0%
541890	Other Services Related to Advertising	39.5%	60.5%	100.0%
561622	Locksmiths	14.3%	85.7%	100.0%
561720	Janitorial Services	27.7%	72.3%	100.0%
811192	Car Washes	7.5%	92.5%	100.0%
Total		13.6%	86.4%	100.0%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

**Table 3-48: Share of MSCAA's Gross Receipts on MSCAA's Car Rental Contracts
by NAICS Code**

NAICS	NAICS Code Description	WEIGHT (Pct Share of Dollars)
488410	Motor Vehicle Towing	0.001%
524210	Insurance Agencies and Brokerages	0.8%
532111	Passenger Car Rental	99.2%

NAICS	NAICS Code Description	WEIGHT (Pct Share of Dollars)
541890	Other Services Related to Advertising	0.0002%
561622	Locksmiths	0.01%
561720	Janitorial Services	0.02%
811192	Car Washes	0.01%
Total		100.0%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

Next, we determined the aggregated availability of ACDBEs, weighted by the gross receipts, to be 2.8% for the Authority's contracts. Table 3-49 presents the weighted availability data for each of the racial and gender categories.

Table 3-49: Aggregated Weighted Availability for MSCAA's Car Rental Contracts

Black	Hispanic	Asian	Native American	White Women	ACDBE	Non-ACDBE	Total
1.4%	0.0%	0.0%	0.0%	1.4%	2.8%	97.2%	100.0%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

F. Conclusion

This Chapter analyzed MSCAA's utilization of M/W/DBEs and ACDBEs and the availability of these firms as a percentage of all available firms. The weighted availability estimates can be used as the basis for setting triennial DBE and ACDBE goals and annual Business Diversity Development ("BDD") program goals. The unweighted availability estimates can be used as the basis for setting DBE, ACDBE and BDD contract goals. We further calculated disparity ratios of M/W/DBE availability compared to the Authority's utilization of M/W/DBEs for its locally funded contracts, to assist MSCAA to determine whether it has a strong basis in evidence to continue the use of race- and gender-conscious measures on its non-FAA funded contracts.

IV. ANALYSIS OF ECONOMY-WIDE DISPARITIES IN THE MEMPHIS-SHELBY COUNTY AIRPORT AUTHORITY'S MARKETS

A. Introduction

The late Nobel Prize 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.⁶⁰

This Chapter explores the data and literature relevant to how discrimination in the Memphis-Shelby County Airport Authority's ("MSCAA") market and throughout the wider economy directly affects the ability of minorities and women to engage in the MSCAA's contract opportunities fairly and fully. First, we analyzed the rates at which M/W/DBEs in the Memphis metropolitan area form firms and their earnings from those firms.⁶¹ Next, we looked at the number of sales and receipts, number of employees and payroll for M/W/DBE firms in the state of Tennessee. Then, 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 discrimination without some types of affirmative intervention.

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

61. The Memphis metropolitan area encompasses the Tennessee counties of Fayette, Shelby and Tipton; the Arkansas counties of Crittenden and Saint Francis; and the Mississippi counties of Benton, Desoto, Marshall, Tate and Tunica

A key element to determine the need for government intervention through contract goals 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 the agency's intervention through its contracting affirmative action programs.

Several courts in rejecting challenges to the U.S. Department of Transportation's Disadvantaged Business Enterprise program, have held that analysis of disparities in the rates at which M/W/DBEs in the government's markets form businesses compared to similar non-M/W/DBEs show that 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.⁶² These analyses contributed most recently to the successful defense of the Illinois Tollway's Disadvantaged Business Enterprise (DBE) Program.⁶³ As explained by the Tenth Circuit in upholding the U.S. Department of Transportation's DBE program, 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 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.⁶⁴

62. See *Western States Paving Co., Inc. v. Washington Department of Transportation*, 407 F.3d 983, 993 (9th Cir. 2005), cert. denied, 546 U.S. 1170 (2006); *Sherbrooke Turf, Inc. v. Minnesota Department of Transportation*, 345 F.3d 964, 970 (8th Cir. 2003), cert. denied, 541 U.S. 1041 (2004); *Northern Contracting, Inc. v. Illinois Department of Transportation*, 2004 U.S. Dist. LEXIS 3226 at *64 (N.D. Ill., Mar. 3, 2004).

63. *Midwest Fence Corp. v. Illinois Department of Transportation, Illinois State Toll Highway Authority et al*, 840 F.3d 942 (7th Cir. 2016) (upholding the Illinois Tollway's program for state funded contracts modeled after Part 26 and based on CHA's expert testimony, including about disparities in the overall Illinois construction industry); see also *Builders Association of Greater Chicago v. City of Chicago*, 298 F.Supp.2d 725 (N.D. Ill. 2003) (holding that the City of Chicago's M/W/DBE program for local construction contracts met the compelling interest prong using this framework).

64. *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147, 1168-1169 (10th Cir. 2000), cert. granted, 532 U.S. 941, then dismissed as improvidently granted, 534 U.S. 103 (2001) ("Adarand VII").

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/W/DBEs 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/W/DBEs are precluded from competing for public contracts.”⁶⁵

Despite the contentions of plaintiffs that possibly dozens of factors might influence the ability of any individual to succeed in business, at least one court has 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”.⁶⁶

For example, in considering challenges to the USDOT DBE program regulations, 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 have been held to be strong evidence of the continuing effects of discrimination.⁶⁷ 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.⁶⁸

65. *Id.*

66. *Concrete Works of Colorado, Inc. v. City and County of Denver*, 321 F3d 950, 980 (“Even assuming that it is possible to adequately measure variables like quality of education and culture, neither the district court nor CWC provided any explanation of how the failure to control for any of these variables undermines the reliability of the business formation studies. While the report prepared by CWC’s expert, George LaNoe, indicated that cultural differences or immigration status may affect business-formation rates, LaNoe did not explain what he meant by the term “cultural differences,” did not conduct a study that controlled for these variables and, more importantly, did not testify that controlling for the variables would eliminate the disparities.”) 10th Cir. 2003.

67. *Western States*, 407 F. 3d 983, 992-993; *Northern Contracting, Inc. v. Illinois Department of Transportation*, 2005 U.S. Dist. LEXIS 19868, at *64 (Sept. 8, 2005). [This cite is not sufficient for the proposition stated.

Likewise, in holding that the DBE program regulations meet strict scrutiny, the court in the *Western States* opinion relied on the “substantial body of statistical and anecdotal materials” considered by Congress, including studies based on Census data that provide “ample” evidence of barriers to the formation of minority-owned firms in the transportation contracting industry.⁶⁹

This type of analysis is especially important for an agency such as the Authority, which has been implementing versions of an DBE program for many years. MSCAA’s remedial market interventions through the use of contract goals may ameliorate the negative effects of marketplace discrimination in the agency’s own contracting activities. Put another way, the program’s success in moving towards parity for minority and woman firms may be “masking” the effects of discrimination that otherwise would result in disparities in DBE utilization that mirror that of the overall economy.

To explore the question of whether firms owned by non-Whites and White women face discrimination in the Airport’s marketplace outside of the Airport’s contracts, we examined the U.S. Bureau of the Census’ *American Community Survey* which allows us to examine disparities using individual entrepreneurs as the basic unit of analysis.⁷⁰ We used the 10-county Memphis metropolitan area as the geographic unit of analysis.⁷¹

We found disparities in wages, business earnings and business formation rates for minorities and women in the overall economy in the MSCAA marketplace.

B. Discrimination in the Marketplace: Evidence from the Census Bureau’s 2014-2018 American Community Survey

As discussed in the beginning of this Chapter, the key question is whether firms owned by non-Whites and White women face discrimination in the marketplace without the intervention of the Authority’s programs. In this section, we explore this and other aspects of this question using the Census Bureau’s *American Community Survey* data. One element of the survey asks if demographic differences exist in the wage and salary income received by private sector workers. Beyond

68. *Sherbrooke*, 345 F.3d 964, 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.”).

69. *Western States*, 407 F.3d 983, 993.

70. Data from 2014-2018 American Community Survey are the most recent for a five-year period.

71. The ten counties were: Crittenden and St. Francis in Arkansas; Benton, DeSoto, Marshall, Tate, and Tunica in Mississippi; and Fayette, Shelby, and Tipton in Tennessee.

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. Consequently, 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.

The *American Community Survey* ("ACS") *Public Use Microdata Sample* ("PUMS") is useful in addressing these issues. The ACS is an annual survey of one percent of the population and the PUMS provides detailed information at the individual level. In order to obtain robust results from our analysis, we used the file that combines the most recent data available for the years 2014 through 2018.⁷² 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 and 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 race or gender difference. To better understand the impact of race or gender on wages, it is important to compare individuals of different races or genders who work in the same industry. Of course, wages are determined by a broad set of factors beyond race, gender, and industry. With the ACS PUMS, we have the ability to include a wide range of additional variables such as age, education, occupation, and state of residence in the analysis.

We employ a multiple regression statistical technique to process this data. This methodology allows us to obtain two results: 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 A.

With respect to the first step of the 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

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

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.

With respect to the second step of the regression analysis, we will 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 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 percent 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 percent 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 percent confident that the relationship is different from zero. For example, if a variable had a coefficient of 2.5 and that coefficient was found to be statistically significant at the 95 percent level, this is interpreted to mean that we are 95 percent confident that the coefficient actually is 2.5 (and not zero).⁷³

The results are presented as follows:

1. Data on the share of a demographic group that forms a business (business formation rates);
2. The probabilities that a demographic group will form a business relative to White men (business formation probabilities);
3. The differences in wages received by a demographic group relative to White men (wage differentials); and
4. The differences in business earnings received by a demographic group relative to White men (business earnings differentials).

One method of exploring differences in economic outcomes is to examine the rate at which different demographic groups form businesses. We developed these business formation rates using data from the U.S. Bureau of the Census’ *American Community Survey*. It is important to recognize that there were only two Native

73. Most social scientists do not endorse utilizing a confidence level of less than 95 percent. Appendix C explains more about statistical significance.

American firms and one Other firm in this data set. Because of these limited observations, we were unable to provide reliable estimates for business outcomes for these groups. (Note: there were sufficient observations of these two groups among wage earners for reliable estimates to be made). Table 4-1 presents these results. The Table indicates that White men have higher business formation rates compared to non-Whites and White women.

Table 4-1: Business Formation Rates

2014-2018⁷⁴

Demographic Group	Business Formation Rates
Black	1.3%
Hispanic	1.9%
Native American	--- ^a
Asian/Pacific Islander	3.6%
Other	---
White Women	2.2%
non-White Male	1.7%
White Male	5.3%

a. As mentioned in the text, there were not sufficient observations in the sampled data to conduct a reliable statistical analysis for Native American and Other firms. In these instances, the tables will contain the symbol “---”. For the balance of the ACS analysis, we will not provide estimates concerning business outcomes for these two groups. We will report on estimates for wage outcomes for these groups where possible.

Source: CHA calculations from the American Community Survey

Table 4-2 utilizes probit regression analysis to examine the probability of forming a business after controlling for important factors beyond race and gender.⁷⁵ This table indicates that non-Whites and White women are less likely to form businesses compared to similarly situated White men. The reduced probabilities of business formation ranged from 2.4 percent for Blacks to 1.8 percent for Asian/Pacific Islanders. These results were statistically significant at the 0.001 level for Blacks, Hispanics, and White women.

74. Statistical significance tests were not conducted on basic business formation rates. These basic business formation rates are presented to be descriptive and not analytical, in contrast to the subsequent tables are. Hence there was not significance testing of the results in Table 4-1 but there was significance testing for Tables 4-2 through Table 4-4.

75. Appendix B provides a “Further Explanation of Probit Regression Analysis.”

Table 4-2: Business Formation Probabilities Relative to White Men
2014-2018

Demographic Group	Probability of Forming a Business Relative to White Men
Black	-2.4%***
Hispanic	-2.3%***
Native American	---
Asian/Pacific Islander	-1.8%**
Other	---
White Women	-2.1%***

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

** Indicates statistical significance at the 0.01 level

Another way to measure equity is to examine how the wage and salary incomes and business earnings of particular demographic groups compare to White men. Multiple regression statistical techniques allowed us to examine the impact of race and gender on economic outcomes while controlling for other factors, such as education and age.⁷⁶ Table 4-4 indicates that except for Asian/Pacific Islanders, non-Whites and White women receive business earnings less than White men. The reduction in earnings ranges from 147.0 percent to 2.3 percent. Tables 4.3 and 4.4 present this data on wage and salary incomes and business earnings respectively. Table 4-3 indicates that non-Whites and White women earn less than White men. The reduction in earnings ranges from 48.1 percent to 17.0 percent and all of the results are statistically significant at the 0.001 level (except the coefficient for Native Americans which is statistically significant at the 0.01 level).

Table 4-3: Wage Differentials for Selected Groups Relative to White Men
2014-2018

Demographic Group	Wages Relative to White Men (% Change)
Black	-32.5%***
Hispanic	-17.0%***
Native American	-48.1%**

76. See Appendix A for more information on multiple regression statistical analysis.

Demographic Group	Wages Relative to White Men (% Change)
Asian/Pacific Islander	-27.8%***
Other	-36.4%***
White Women	-36.6%***

Source: CHA calculations from the American Community Survey

*** Indicates statistical significance at the 0.001 level

** Indicates statistical significance at the 0.01 level

Table 4-4 indicates that except for Asian/Pacific Islanders, non-Whites and White women receive business earnings less than White men. The reduction in earnings ranges from 147.0 percent to 2.3 percent.

Table 4-4: Business Earnings Differentials for Selected Groups Relative to White Men
All Industries

Demographic Group	Earnings Relative to White Men (% Change)
Black	-79.6%*
Hispanic	-147.0% ^a
Native American	---
Asian/Pacific Islander	-2.3%
Other	---
White Women	-30.4%

a. The proper way to interpret a coefficient that is less than negative 100 percent (e.g., the value of the coefficient for Hispanic in Table 4-4), is the percentage amount non-M/W/DBEs earn that is more than the group in question. In this case, non-M/W/DBEs earn 147% percent more than Hispanics.

Source: CHA calculations from the American Community Survey

* Indicates statistical significance at the 0.05 level

C. Disparate Treatment in the Marketplace: Evidence from the Census Bureau's 2012 Survey of Business Owners

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.⁷⁷ The 2012 SBO was released on December 15, 2015, so our analysis reflects the most current data available. The SBO collects demographic data on business owners disaggregated into the following groups:^{78, 79}

- non-Hispanic Blacks
- Latinos
- 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
- Publicly Owned Firms or Firms where the ownership could not be classified

In Table 4-5, we examine all of these categories with the exception of the "Publicly Owned Firms" which we aggregate with the "Firms where the ownership could not be classified". In Tables 4-6 and 4-7, we aggregated the last four categories into one category and label the group "not non-White/non-White women". While this label is cumbersome, it is important to be clear this group includes firms whose ownership extends beyond White men, such as firms that are not classifiable or that are publicly traded and thus have no racial ownership. Since our interest is the treatment of non-White-owned firms and White woman-owned firms, the aggregation of the last five groups was appropriate. The analysis entails exploring if the share of sales and payroll of non-White and White women owned firms are proportionate to their share of total firms. Given this question, the distinctions among

77. See <https://www.census.gov/econ/overview/mu0200.html> for more information on the Survey.

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

79. For expository purposes, the adjective "non-Hispanic" will not be used in this chapter; the reader should assume that any racial group referenced does not include members of that group who identify ethnically as Latino.

the four categories of firms subsumed into the larger category of “not non-White/non-White Women” is not relevant. In addition to the ownership demographic data, the Survey also gathers information on the sales, number of paid employees, and payroll for each reporting firm. Using these categories, we analyzed economy wide SBO data for an aggregated “All Industries” in the state of Tennessee.

For a baseline analysis, we examined all industries in the state of Tennessee. Table 4-6 presents data on the percentage share that each group has of the total of each of the following six business outcomes:

- The number of all firms
- The sales and receipts of all firms
- The number of firms with employees (employer firms)
- The sales and receipts of all employer firms
- The number of paid employees
- The annual payroll of employer firms

Panel A of Table 4-5 presents data for the four basic non-White racial groups:

- Black
- Latino
- Native American
- Asian

Panel B of Table 4-5 presents data for six types of firm ownership:

- non-White
- White Women
- White Men
- Equally non-Whites and Whites
- Equally women and men
- Firms that are publicly owned or not classifiable

Categories in the second panel are mutually exclusive. Hence, minority firms that are equally owned by men and women are classified as ‘non-White’. Firms that are equally owned by minorities and Whites and equally owned by men and women are classified as ‘Equally non-White & and White’.⁸⁰

Table 4-5: Percentage Demographic Distribution of Sales and Payroll Data
All Industries, 2012

	Total Number of Firms (All Firms)	Sales & Receipts- All Firms (\$1,000)	Number of Firms with Paid Employees (Employer Firms)	Sales & Receipts- All Firms with Paid Employees (Employer Firms) (\$1,000)	Number of Paid Employees	Annual payroll (\$1,000)
Panel A: Distribution of non-White Firms						
Black	13.3%	0.5%	2.5%	0.3%	0.9%	0.6%
Latino	2.5%	0.5%	1.4%	0.4%	0.8%	0.5%
Native American	0.7%	0.1%	0.5%	0.1%	0.1%	0.2%
Asian	2.6%	1.1%	5.3%	1.1%	1.5%	1.0%
Panel B: Distribution of All Firms						
Non-White	19.1%	2.2%	9.9%	1.9%	3.4%	2.3%
White Women	25.1%	3.7%	15.0%	3.3%	5.5%	4.3%
White Men	46.7%	25.8%	55.5%	24.5%	31.3%	30.0%
Equally Non-White & White	0.3%	0.1%	0.6%	0.1%	0.3%	0.2%
Equally Women & Men	7.8%	2.7%	12.2%	2.4%	7.5%	3.7%
Firms Not Classifiable	1.7%	65.7%	8.3%	67.9%	52.6%	59.8%
All Firms	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: CHA calculations from Survey of Business Owners

Since the central issue is the possible disparate treatment of non-White and White women firms, Table 4-6 re-aggregates the last four groups—White men; equally non-White and White; equally women and men; and firms not classifiable—into one group: Not non-White/Not White Women.⁸¹ We then present the shares each group has of the six indicators of firm utilization. These data were then used to calculate three disparity ratios, presented in Table 4-7:

80. Some of the figures in Panel B may not correspond to the related figures in Panel A because of discrepancies in how the SBO reports the data.

81. Again, while a cumbersome nomenclature, it is important to remain clear that this category includes firms other than those identified as owned by White men.

- Ratio of sales and receipts share for all firms over the share of total number of all firms.
- Ratio of sales and receipts share for employer firms over the share of total number of employer firms.
- Ratio of annual payroll share over the share of total number of employer firms.

For example, the disparity ratio of sales and receipts share for all firms over the share of total number of all firms for Black firms is 9.8 percent (as shown in Table 4-7). This is derived by taking the Black share of sales and receipts for all firms (1.3 percent) and dividing it by the Black share of total number of all firms (13.5 percent) that are presented in Table 4-6.⁸² If Black-owned firms earned a share of sales equal to their share of total firms, the disparity would have been 100 percent. 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.⁸³ All disparity ratios for non-White firms and White women firms are below this threshold.⁸⁴ Examining Table 4-7, 12 of the 18 disparity ratios for non-White firms and White women firms are below the 80 percent threshold.

Table 4-6: Demographic Distribution of Sales and Payroll Data – Aggregated Groups
All Industries, 2012

	Total Number of Firms (All Firms)	Sales & Receipts- All Firms (\$1,000)	Number of Firms with Paid Employees (Employer Firms)	Sales & Receipts- All Firms with Paid Employees (Employer Firms) (\$1,000)	Number of Paid Employees	Annual payroll (\$1,000)
Panel A: Distribution of non-White Firms						
Black	13.5%	1.3%	2.8%	0.9%	1.9%	1.4%
Latino	2.5%	1.5%	1.5%	1.3%	1.7%	1.2%

82. Please note that while the numbers presented in these Tables 4.5 and 4.6 are rounded to the first decimal place, the calculations presented in Table 4-7 are based on the actual (non-rounded) figures. So, the Black ratio presented in Table 4-7 of 9.8% is not the same figure as that which is determined when you divided 1.3 by 13.5.
83. 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.”).
84. Because the data in the subsequent tables are presented for descriptive purposes, significance tests on these results are not conducted.

	Total Number of Firms (All Firms)	Sales & Receipts- All Firms (\$1,000)	Number of Firms with Paid Employees (Employer Firms)	Sales & Receipts- All Firms with Paid Employees (Employer Firms) (\$1,000)	Number of Paid Employees	Annual payroll (\$1,000)
Native American	0.7%	0.3%	0.5%	0.3%	0.2%	0.6%
Asian	2.6%	3.3%	5.8%	3.4%	3.2%	2.4%
Panel B: Distribution of All Firms						
Non-White	19.4%	6.6%	10.8%	6.0%	7.2%	5.7%
White Women	25.5%	10.8%	16.4%	10.3%	11.6%	10.6%
Not Non-White/Not White Women	47.5%	75.2%	60.5%	76.5%	65.9%	74.5%
All Firms	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: CHA calculations from Survey of Business Owners

Table 4-7: Disparity Ratios of Firm Utilization Measures
All Industries, 2012

	Ratio of Sales to Number of Firms (All Firms)	Ratio of Sales to Number of Firms (Employer Firms)	Ratio of Payroll to Number of Employer Firms
Panel A: Disparity Ratios for non-White Firms			
Black	9.8%	31.6%	71.3%
Latino	57.8%	86.9%	73.2%
Native American	50.9%	63.4%	278.5%
Asian	127.5%	58.8%	75.4%
Panel B: Disparity Ratios for All Firms			
Non-Whites	33.7%	55.7%	79.7%
White Women	42.4%	62.7%	91.3%
Not Non-White/Not White Women	158.2%	126.3%	113.0%
All Firms	100.0%	100.0%	100.0%

Source: CHA calculations from Survey of Business Owners

D. Evidence of Disparities in Access to Business Capital

As presented in Chapter V, many participants in the anecdotal data collection agreed that access to working capital is critical to the success of their businesses. The interviews with business owners conducted as part of this Study confirmed that small firms, especially minority- and woman-owned firms, had difficulties obtaining needed working capital to perform on MSCAA's contracts and subcontracts, as well as expand the capacities of their firms. As discussed above, discrimination may even prevent firms from forming in the first place.

There is an extensive body of federal agency reports and 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.⁸⁵

1. Federal Reserve Board Small Business Credit Surveys⁸⁶

The Development Office of the 12 Reserve Banks of the Federal Reserve System have conducted Small Business Credit Surveys ("SBCS") to develop data on small business performance and financing needs, decisions, and outcomes.

a. 2018 Small Business Credit Survey

The 2018 Small Business Credit Survey⁸⁷ focused on minority-owned firms. The analysis was divided into two types: employer firms, and nonemployer firms.

i. Employer firms

Queries were submitted to businesses with fewer than 500 employees in the third and fourth quarters of 2018. Of the 7,656 firms in the unweighted sample, 5 percent were Asian, 10 percent were Black, 6 percent were Hispanic and 79 percent were White. Data were then weighted by number of employees, age, industry, geographic location (census division and urban or rural location), and minority status to ensure that the data is representative of the nation's small employer firm demographics.⁸⁸

85. See, e.g., Evans, David S. and Jovanovic, Boyan, "An Estimated Model of Entrepreneurial Choice under Liquidity Constraints," *Journal of Political Economy*, (1989); Evans, David S. and Leighton, Linda "Some empirical aspects of entrepreneurship," *American Economic Review*, (1989).

86. This survey offers baseline data on the financing and credit positions of small firms before the onset of the pandemic. See [fedsmallbusiness.org](https://www.fedsmallbusiness.org).

87. Small Business Credit Survey ("SBCS"), <https://www.fedsmallbusiness.org/survey/2017/report-on-minority-owned-firms>.

Among the findings for employer firms relevant to discriminatory barriers were the following:

- Not controlling for other firm characteristics, fewer minority-owned firms were profitable compared to nonminority-owned firms during the past two years.⁸⁹ On average, minority-owned firms and nonminority-owned firms were about as likely to be growing in terms of number of employees and revenues.⁹⁰
- Black-owned firms reported more credit availability challenges or difficulties obtaining funds for expansion—even among firms with revenues of more than \$1M. For example, 62 percent of Black-owned firms reported that obtaining funds for expansion was a challenge, compared to 31 percent of White-owned firms.⁹¹
- Black-owned firms were more likely to report relying on personal funds of owner(s) when they experience financial challenges to fund their business. At the same time, White- and Asian-owned firms reported higher debt levels than Black- and Hispanic-owned firms.⁹²
- Black-owned firms reported more attempts to access credit than White-owned firms but sought lower amounts of financing. 40 percent of Black-owned firms did not apply because they were discouraged, compared to 14 percent of white-owned firms.⁹³
- Low credit score and lack of collateral are the top reported reasons for denial of Black- and Hispanic-owned firms.⁹⁴

ii. Nonemployer firms⁹⁵

Queries were submitted to nonemployer firms in the third and fourth quarters of 2018. Of the 4,365 firms in the unweighted sample, 5 percent were Asian, 24 percent were Black, 7 percent were Hispanic and 64 percent were White. Data were then weighted by age, industry, geographic location (census division and urban or rural location), and minority status.⁹⁶

88. *Id.* at 22. Samples for SBCS are not selected randomly. To control for potential biases, the sample data are weighted so that the weighted distribution of firms in the SBCS matches the distribution of the small firm population in the United States by number of employees, age industry, geographic location, gender of owner, and race or ethnicity of owners.

89. *Id.* at 3.

90. *Id.* at 4.

91. *Id.* at 5.

92. *Id.* at 6.

93. *Id.* at 9.

94. *Id.* at 15.

95. *Id.* at 18

Among the findings for nonemployer firms relevant to discriminatory barriers were the following:

- Black-owned firms were more likely to operate at a loss than other firms.⁹⁷
- Black-owned firms reported greater financial challenges, such as obtaining funds for expansion, accessing credit and making operating expenses than other businesses.⁹⁸
- Black- and Hispanics-owned firms submitted more credit applications than White-owned firms.⁹⁹

b. 2016 Small Business Credit Surveys

The 2016 Small Business Credit Survey¹⁰⁰ obtained 7,916 responses from employer firms with race/ethnicity information and 4,365 nonemployer firms in the 50 states and the District of Columbia. Results were reported with four race/ethnicity categories: White, Black or African American, Hispanic, and Asian or Pacific Islander.¹⁰¹ It also reported results from woman-owned small employer firms, defined as firms where 51 percent or more of the business is owned by women, and compared their experiences with male-owned small employer firms.

i. The 2016 Report on Minority-Owned Businesses¹⁰²

The Report on Minority-Owned Businesses provided results for White-, Black- or African American-, Hispanic-, and Asian- or Pacific Islander-owned firms.

Demographics¹⁰³

The SBCS revealed that Black-, Asian-, and Hispanic-owned firms tended to be younger and smaller in terms of revenue size, and they were concentrated in different industries. Black-owned firms were concentrated most in the healthcare and education industry sectors (24 percent). Asian-owned firms were most concentrated in professional services and real estate (28 percent). Hispanic-owned firms were most

96. *Id.* at 18

97. *Id.*

98. *Id.* at 19.

99. *Id.* at 20.

100. <https://www.fedsmallbusiness.org/survey/2017/report-on-minority-owned-firms>.

101. When the respondent sample size by race for a survey proved too small, results were communicated in terms of minority vis-à-vis non-minority firms.

102. <https://www.fedsmallbusiness.org/survey/2017/report-on-minority-owned-firms>.

103. 2016 SBCS, at 2.

concentrated in nonmanufacturing goods production and associated services industry, including building trades and construction (27 percent). White-owned firms were more evenly distributed across several industries but operated most commonly in the professional industry services and real estate industries (19 percent), and nonmanufacturing goods production and associated services industry (18 percent).¹⁰⁴

Profitability Performance Index¹⁰⁵

After controlling for other firm characteristics, the SBCS found that fewer minority-owned firms were profitable compared to non-minority owned firms during the prior two years. This gap proved most pronounced between White- (57 percent) and Black-owned firms (42 percent). On average, however, minority-owned firms and non-minority owned firms were nearly as likely to be growing in terms of number of employees and revenues.

Financial and Debt Challenges/Demands¹⁰⁶

The number one reason for financing was to expand the business or pursue a new opportunity. Eighty-five percent of applicants sought a loan or line of credit. Black-owned firms reported more attempts to access credit than White-owned firms but sought lower amounts of financing.

Black-, Hispanic-, and Asian-owned firms applied to large banks for financing more than they applied to any other sources of funds. Having an existing relationship with a lender was deemed more important to White-owned firms when choosing where to apply compared to Black-, Hispanic- and Asian-owned firms.

The SBCS also found that small Black-owned firms reported more credit availability challenges or difficulties for expansion than White-owned firms, even among firms with revenues in excess of \$1M. Black-owned firm application rates for new funding were 10 percentage points higher than White-owned firms; however, their approval rates were 19 percentage points lower. A similar but less pronounced gap existed between Hispanic- and Asian-owned firms compared with White-owned firms. Of those approved for financing, only 40 percent of minority-owned firms received the entire amount sought compared to

104. *Id.* Forty-two percent of Black-owned firms, 21 percent of Asian-owned firms, and 24 percent of Hispanic-owned firms were smaller than \$100K in revenue size compared with 17 percent of White-owned firms.

105. *Id.* at 3-4.

106. *Id.* at 8-9; 11-12; 13; 15.

68 percent of non-minority owned firms, even among firms with comparably good credit scores.

Relative to financing approval, the SBCS found stark differences in loan approvals between minority-owned and White-owned firms. When controlling for other firm characteristics, approval rates from 2015 to 2016 increased for minority-owned firms and stayed roughly the same for non-minority owned firms. Hispanic- and Black-owned firms reported the highest approval rates at online lenders.¹⁰⁷

Low credit score and lack of collateral were the top reported reasons for denial of Black- and Hispanic-owned firms. Satisfaction levels were lowest at online lenders for both minority- and non-minority owned firms. A lack of transparency was cited as one of the top reasons for dissatisfaction for minority applicants and borrowers.

Forty percent of nonapplicant Black-owned firms reported not applying for financing because they were discouraged (expected not to be approved), compared with 14 percent of White-owned firms and 21 percent of Hispanic-and Asian-owned firms. The use of personal funds was the most common action taken in response to financial challenges, with 86 percent of Black-owned firms, 77 percent of Asian-owned firms, 76 percent of White-owned firms, and 74 percent of Hispanic-owned firms using this as its source.

A greater share of Black-owned firms (36 percent) and of Hispanic-owned firms (33 percent) reported existing debt in the past 12 months of less than \$100,000, compared with 21 percent of White-owned firms and 14 percent of Asian-owned firms. Black-owned firms applied for credit at a higher rate and tended to submit more applications, compared with 31 percent of White-owned firms. Black-, Hispanic-, and Asian-owned firms applied for higher-cost products and were more likely to apply to online lenders compared with White-owned firms.

Business Location Impact¹⁰⁸

Controlling for other firm characteristics, minority-owned firms located in low-income minority zip codes reported better credit outcomes at large banks, compared with minority-owned firms in other zip codes. By contrast, at small banks, minority-owned firms located in low- and moderate-income minority zip codes experiences lower approval rates than minority-owned firms located in other zip codes.

107. The share of minority-owned firms receiving at least some financing was lower across all financing products, compared with nonminority.

108. *Id.* at 17.

***Non-Employer Firms*¹⁰⁹**

Non-employer firms reported seeking financing at lower rates and experienced lower approval rates than employer firms, with Black-owned non-employer firms and Hispanic-owned non-employer firms experiencing the most difficulty. White-owned non-employer firms experienced the highest approval rates for new financing, while Black-owned non-employer firms experienced the lowest approval rates for new financing.

ii. *The 2016 Report on Women-Owned Businesses*¹¹⁰

The Report on Women-Owned Businesses provides results from woman-owned small employer firms where 51 percent or more of the business is owned by women and on data that compared the experience of these firms compared with male-owned small employer firms.

***Firm Characteristics: Woman-Owned Firms Start Small and Remain Small and Concentrate in Less Capital-Intensive Industries*¹¹¹**

The SBCS found that 20 percent of small employer firms are woman-owned, compared to 65 percent male-owned and 15 percent equally owned. Woman-owned firms generally had smaller revenues and fewer employees than male-owned small employer firms. These firms tended to be younger than male-owned firms.

Woman-owned firms were concentrated in less capital-intensive industries. Two out of five woman-owned firms operated in the healthcare and education or professional services and real estate industries. Male-owned firms were concentrated in professional services, real estate, and non-manufacturing goods production and associated services.

***Profitability Challenges and Credit Risk Disparities*¹¹²**

Woman-owned firms were less likely to be profitable than male-owned firms. These firms were more likely to report being medium or high credit risk compared to male-owned firms. Notably, gender differences by credit risk were driven by woman-owned startups. Among firms older than five years, credit risk was indistinguishable by the owner's gender.

109. *Id.* at 21.

110. <https://www.newyorkfed.org/medialibrary/media/smallbusiness/2016/SBCS-Report-WomenOwnedFirms-2016.pdf>

111. 2016 SBCS, at 1-5

112. *Id.* at 6-7.

Financial Challenges During the Prior Twelve Months¹¹³

Woman-owned firms were more likely to report experiencing financial challenges in the prior twelve months: 64 percent compared to 58 percent of male-owned firms. They most frequently used personal funds to fill gaps and make up deficiencies. Similar to male-owned firms, woman-owned firms frequently funded operations through retained earnings. Ninety percent of woman-owned firms relied upon the owner's personal credit score to obtain financing.

Debt Differences¹¹⁴

Sixty-eight percent of woman-owned firms had outstanding debt, similar to male-owned firms. However, woman-owned firms tended to have smaller amounts of debt, even when controlled for the revenue size of the firm.

Demands for Financing¹¹⁵

Forty-three percent of woman-owned firms applied for financing. Similar to male-owned firms, woman-owned firms most frequently applied for loans and lines of credit. Both woman- and male-owned firms were most successful at small banks. Both reported that the most common reason for financing was business expansion. Woman-owned applicants tended to seek smaller amounts of financing even when their revenue size was comparable.

Overall, woman-owned firms were less likely to receive all financing applied for compared to male-owned firms. Woman-owned firms received a higher approval rate for U.S. Small Business Administration loans compared to male-owned firms. Low-credit woman-owned firms were less likely to be approved for business loans than their male counterparts with similar credit (68 percent compared to 78 percent).

Firms That Did Not Apply for Financing¹¹⁶

Woman-owned firms reported being discouraged from applying for financing for fear of being turned down at a greater rate: 22 percent compared to 15 percent. Woman-owned firms cited low credits scores more frequently than male-owned firms as their chief obstacle in securing credit. By contrast, male-owned businesses were more likely to cite performance issues.

113. *Id.* at 8.

114. *Id.* at 10.

115. *Id.* at 16.

116. *Id.* at 14.

*Lender Satisfaction*¹¹⁷

Woman-owned firms were most consistently dissatisfied by lenders' lack of transparency and by long waits for credit decisions. However, they were notably more satisfied with their borrowing experiences at small banks rather than large ones.

2. Minority Business Development Agency Report¹¹⁸

The 2010 Minority Business Development Agency ("MBDA") Report, "Disparities in Capital Access Between Minority and Non-Minority Owned Businesses: The Troubling Reality of Capital Limitations Faced by MBEs", summarizes results from the Kauffman Firm Survey, data from the U.S. Small Business Administration's Certified Development Company/504 Guaranteed Loan Program and additional extensive research on the effects of discrimination on opportunities for minority-owned firms. The report 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 used to acquire other businesses.¹¹⁹

It also found, "the largest single factor explaining racial disparities in business creation rates are differences in asset levels."¹²⁰

Some additional key findings of the Report include:

- *Denial of Loan Applications.* Forty-two percent of loan application from minority firms were denied compared to 16 percent of loan applications from non-minority owned firms.¹²¹
- *Receiving Loans.* Forty-one percent of all minority-owned firms received loans compared to 52 percent of all non-minority owned firms. MBEs are less likely to receive loans than non-minority owned firms regardless of firm size.¹²²

117. *Id.* at 26.

118. Robert W. Fairlie and Alicia Robb, *Disparities in Capital Access Between Minority and non-Minority Businesses: The Troubling Reality of Capital Limitations Faced by MBEs*, Minority Business Development Agency, U.S. Department of Commerce, 2010 ("[MBDA Report](#)")

119. *Id.* at 17.

120. *Id.* at 22.

121. *Id.* at 5.

122. *Id.*

- *Size of Loans.* The size of the loans received by minority averaged \$149,000. For non-minority owned firms, loan size averaged \$310,000.
- *Cost of Loans.* Interest rates for loans received by minority owned firms averaged 7.8%. On average, non-minority owned firms paid 6.4% in interest.¹²³
- *Equity Investment.* The equity investments received by minority-owned firms were 43 percent of the equity investments received by 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.¹²⁴

3. Survey of Small Business Finances

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 2003.¹²⁵ 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.¹²⁶

4. Other Reports

- Dr. Timothy Bates found venture capital funds focusing on investing in minority firms provide returns that are comparable to mainstream venture capital firms.¹²⁷

123. *Id.*

124. *Id.*

125. <https://www.federalreserve.gov/pubs/oss/oss3/nssbftoc.htm>. These surveys have been discontinued. They are referenced to provide some historical context.

126. 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),

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

- 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.¹²⁸
- Another study by Fairlie and Robb found 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.¹²⁹

E. 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-DBEs in our interview groups who were second or even higher generation firms doing business for the market area. 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.¹³⁰ Black men have been found to face a "triple disadvantage"; they are less likely than White men to:

- Have self-employed fathers;
- Become self-employed if their fathers were not self-employed; and
- To follow their fathers into self-employment.¹³¹

Intergenerational links are also critical to the success of the businesses that do form.¹³² Working in a family business leads to more successful firms by new own-

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

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

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

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

ers. 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.¹³³ 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.¹³⁴ The U.S. Department of Commerce has reported that the ability to form strategic alliances with other firms is important for success.¹³⁵ M/W/DBEs in our interviews reported that they felt excluded from the networks that help to create success in the highway construction industry.

132. 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).

133. *Id.*

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

135. "Increasing MBE Competitiveness through Strategic Alliances", Minority Business Development Agency, 2008.

V. QUALITATIVE EVIDENCE OF RACE AND GENDER BARRIERS IN THE MEMPHIS-SHELBY COUNTY AIRPORT AUTHORITY'S MARKET

In addition to quantitative data, a disparity study should further explore anecdotal evidence of experiences with discrimination in contracting opportunities and MSCAA's business opportunity programs. This evidence is relevant to the question of whether observed statistical disparities in its locally funded contracts are due to discrimination and not to some other non-discriminatory cause or causes, as well as the likely efficacy of any race- and gender-neutral remedies employed by MSCAA for all its contracting opportunities. As discussed in the Legal Appendix, this type of anecdotal data has been held by the courts to be relevant and probative of whether the Authority continues to have a need to use narrowly tailored DBE, ACDBE and BDD contract goals to remedy the effects of past and current discrimination and create a level playing field for contract opportunities for all firms.

The Supreme Court has held that anecdotal evidence can be persuasive because it "brought the cold [statistics] convincingly to life."¹³⁶ Evidence about discriminatory practices engaged in by prime contractors, agency personnel, 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.¹³⁷ 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."¹³⁸ "[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

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

137. *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147, 1168-1172 (10th Cir. 2000), *cert. granted*, 532 U.S. 941, *then dismissed as improvidently granted*, 534 U.S. 103 (2001).

138. *Concrete Works of Colorado, Inc. v. City and County of Denver*, 36 F.3d 1513, 1120, 1530 (10th Cir. 1994).

case, we do not rule out the possibility that evidence not reinforced by statistical evidence, as such, will be enough.”¹³⁹

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.”¹⁴⁰ 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.”¹⁴¹

To explore this type of anecdotal evidence of possible discrimination against minorities and women in MSCAA’s geographic and industry markets and the effectiveness of its current race-conscious and race-neutral measures, we conducted public business owner and stakeholder interviews, totaling 118 participants. We also received written comments. We met with a broad cross section of business owners from the Authority’s geographic and industry markets. Firms ranged in size from large national businesses to established family-owned firms to new start-ups. We sought to explore their experiences in seeking and performing public and private sector prime contracts and subcontracts and concession contracts with MSCAA, other government agencies, and in the private sector. We also elicited recommendations for improvements to MSCAA’s DBE Program, ACDBE Program and the BDD Program.

Many minority and women owners reported that while some progress has been made in integrating their firms into public and private sector transportation contracting activities through race- and gender-conscious contracting programs like the Airport’s, significant barriers on the basis of race or gender remain.

We also conducted an electronic survey of firms in MSCAA’s market area about their experiences in obtaining work, marketplace conditions and the agency’s contracting equity programs. The results were similar to those of the interviews. Among minority- and woman-owned firms, almost 43 percent reported they still experience barriers to equal contracting opportunities; a quarter said their competency was questioned because of their race or gender; and almost 20 percent indicated they had less access to business networks and information.

139. *Engineering Contractors Association of South Florida, Inc. v. Metropolitan Dade County*, 122 F.3d 895, 926 (11th Cir. 1997).

140. *H.B. Rowe Co., Inc. v. Tippet*, 615 F.3d 233, 249 (4th Cir. 2010).

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

A. Business Owner Interviews

The following are summaries of the issues discussed. Quotations are indented and may have been shortened for readability. The statements are representative of the views expressed over the many sessions by numerous participants.

Many minority and female owners reported that they still suffer from biased perceptions and stereotypes about their competency, capabilities and professionalism. While sometimes subtle,¹⁴² these biases color all aspects of their attempts to obtain contracts and to be treated equally in performing contract work.

[People] hold you to a higher standard because you're a woman-owned firm. I deal predominantly with men.

When [I] took over the business [after my husband passed away], ... [there] was a change in how other customers dealt with [me] ... for a while.

Weird things ... happen to female architects. People always assume you're interior designers. They're like, "Can you just do this couch?" And you're like, "Well, yeah, but I was here about the firewall. Yeah, I'll select fabric and I'll do furniture." I charged for it. Don't get me wrong, but it is not the reason that I'm there and people will always assume that you're there to do that.

It's just very frustrating not to be really treated professionally.

Sexism is an inherent part of being an architect. It's 98 percent White, it's only 20 or 30 percent female, 20 percent licensed female, I should say. 30 percent in the offices now, so there's just stuff that happens all the time. Sexism is so much part of it that I don't really think about it anymore. It's just part of it. Fine. But the harassment, that's a problem. And so yeah, I didn't go back to that client. They asked me to come back and I just can't, I'm not doing that.

I really do [think there's a stigma attached to being certified as a disadvantaged business or a minority business].

The question [from another agency's staff] has been or the statement has been, "well, do you think she has the capacity to handle it?" I guess my question is, did they ask that question to the [non-DBE] firm that won the business four or five years ago? Probably not.

142. See, e.g., <http://www.sciencedirect.com/science/article/pii/S0191308509000239>; https://www.abajournal.com/news/article/hypothetical_legal_memo_demonstrates_unconscious_biases ("Partners in study gave legal memo a lower rating when told author wasn't White").

Do people believe you and do people believe you in general is an issue? Just as a female, a lot of people look past me. A lot of people don't believe me the first time I'd say something.

I called every single prime that was bidding for the contract and I got the same thing from every single one of them: "honey, we have our own DBEs thank you very much" and it all started with honey.

Several White women believed that once prime contractors become familiar with their work, and when women assert themselves, sexist assumptions are overcome.

I think the relief came from us when he saw I have a star reputation and stuff like that. And we came in and we got his work done. And we kept him on schedule, we kept him happy. And I think that was all I have to do.

It's a southern thing, some of that stuff is just southern.... Some of them don't know, but if you bring that to their attention, like I have done and said, okay, my name is [name], and they're, oh, I didn't mean any harm and they change their whole persona about themselves. So, we have to reeducate them as well because some of them don't really mean any harm, while others do.

They change again once you let them know. But, when you just sit there and let them say those things, then they are constantly forming more and more opinion of you. But, when you speak back up to them and say, "oh yeah? I did this [scope] and what you're doing right there, that's not quite right, right there." You let them know what you know. Then they change again.

I think men trust women more than they trust other men not to rake them over the coals or take advantage, to be perfectly honest. That maybe my old Southern woman thought on it ... [we are] much less threatening [than racial minorities].

A successful woman construction owner had advice for new M/W/DBEs.

I always tell not only just women, but other minorities. When you want to go into business and do business, you have to do what you say you can do. You have to keep good employees and you have to pay your bills and those are the three. If you work hard, pay your bills and do what you're supposed to do, you'll be successful.

That some minority or female owners have been "fronts" or pass through firms hurts legitimate M/W/DBEs.

I can only speak for WBE. And the biggest thing that I have is they always think that there's a man attached behind. Like you must have a husband or father or somebody who has put the business in your name to get WBE.... There is a small percentage of people who do take advantage and it does give the overall stigma.

A lot of [DBEs] probably feel pressured into well, if I don't go ahead and take this, I won't get a chance to work at all.

Some general contractors also try to “game” the program by using M/W/DBEs as pass throughs.

I did try to work as a sub for someone who was bidding as prime, and it was not a good experience at all. I was referred to as “hey baby girl, hey sugar ... because you're a minority woman that's a DBE, and you don't actually have to do the work, we just need to put your name on the contract. We don't want to have to work with any other DBEs as well because we've already got our own crew. But if you can bring some of them to the table, then we'll just write them a check and bring in our own people.”

When it came time to do the contract, the proposal part, they were like “oh, don't worry about it sugar, we got it.”

Several participants reported that prime vendors resent having to make good faith efforts to include them in government contracts.

A lot of prime contractors, they're sort of forced to hire DBEs.... And so, I think you're fighting against that.

I heard this firsthand. The guy said that a lot of times like DBEs and WBEs or whatever, they'll come at it from a stance like, “Well, you've got to use me because I'm a DBE or a WBE. Like you got to check that box and you got to use me.” So, I think sometimes people get frustrated by that.

[The prime contractor] just told me “look, we don't really need you, want you, but because this is on here and we're forced to have to work with DBEs,” and the way they said DBEs I knew what they were really meaning. It wasn't DBE. It was pretty much saying, you know, we've got to work with Black people.... It was a very discouraging process and having someone talk to me that way and it was an older White man.

The ability to access business and professional networks was hampered by being a minority or woman entrepreneur.

One particular general contractor, a huge company, he has here and one of the biggest firms in the city. He said, “Look, I'm going to tell you

straight up. Memphis is the good old boy network.” He said, “The only way that someone who looks like you can get into the good old boy network is for one of us to invite you in.” And I knew he was telling me the truth and he was trying to be helpful.... “You need to connect, you need to network, you need to be in these offices, you need to get to know these people. You need to make sure that you know what you're capable of, that you're always bringing your A game.” ... If you don't have an in, that can be very difficult to do. And I just happened to have an in. If I hadn't, if my kids hadn't gone to that school, I'm not sure. I probably wouldn't be even doing this still.

It took me about five years to get in [the construction club].... You don't get your foot in the door unless you know somebody, or you're referred.

I went to this manufacturer, went directly to the manufacturer. They sent me to the rep and this one person told me that the pie has already been divided and basically, those were his words. I mean, there's no room for you to get a piece of the pie. And okay, I'm a Black female. And one of the things that he mentioned was another Black female who was doing a similar business to mine years ago.... He implied, “We got her. We don't need anybody else.”

B. Anecdotal Survey

To supplement the in-person interviews, we also conducted an anecdotal, electronic survey of firms on our Master M/W/DBE Directory; firms identified through our outreach efforts; and firms that provided written inquiries or comments. The objective was to extend the opportunity to firm owners and representatives to relate their experiences, supplemental to their inputs that are captured during the in-person interviews. The survey was comprised of up to thirty-three closed- and open-ended questions and replicated the topics discussed in the business owner interviews. Questions focused on doing business in MSCAA’s market area, specifically barriers and negative perceptions, access to networks and information, experiences in obtaining work and capacity development.

The objective was to gather additional anecdotal comments; it was not used for any quantitative analyses. Therefore, the findings cannot be extended to draw conclusions about populations beyond the survey respondents.

The survey was emailed to 1,706 people, every week for eleven weeks. Telephone follow-up was conducted to encourage firms to complete the survey and stimulate responses. Two-hundred and seventy-one gross responses were received. After

accounting for incomplete and non-relevant responses, usable responses equaled 231 for a net response rate of 13.5 percent.

One hundred and eighty-one minority- and woman-owned firms completed the survey for a net response rate of 10.6 percent among this group. A total of 50 publicly held and non-M/W/DBE firms completed the survey, representing a 2.9 percent net response rate among this group. Among M/W/DBEs, professional services firms accounted for the largest number of responses (35.9 percent), followed by goods and services firms (26.0 percent), construction-related firms (21.0 percent) and construction firms (15.5 percent) and ACDBE firms (1.6 percent).

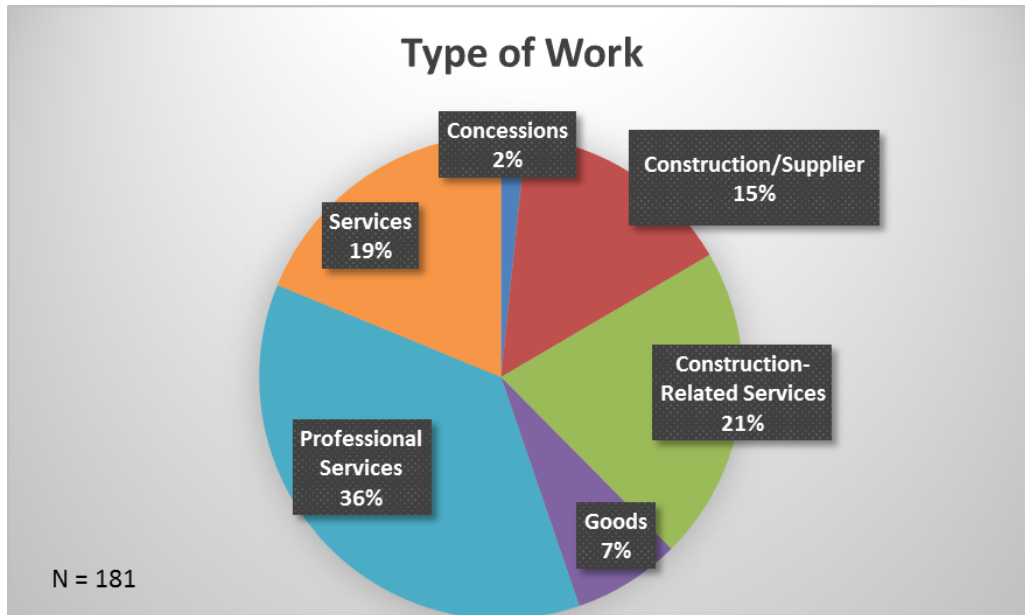
Distribution of race, gender and contracting category of survey respondents:

Firm Ownership Group	Construction	Construction Related Services	Professional Services	Goods & Services	Concessions	Total
African American	11	18	39	37	3	108
Hispanic	1	0	2	1	0	4
Asian-Pacific/ Subcontinent Asian American	0	1	0	0	0	1
Native American/ Alaska Native	1	2	1	0	0	4
Other Minorities	0	0	0	0	0	0
Non-Minority Women	15	17	23	9	0	64
M/W/DBE Total	28	38	65	47	3	181
Publicly Held/ Non- M/W/DBE Total	20	9	14	7	0	50
Respondents Total	48	47	79	54	3	231

1. Respondents' Profiles

Only 12.2 percent of the firms had worked on MSCAA projects only as a prime contractor/consultant or concessionaire; 19.3 percent had worked only as a subcontractor; 8.8 percent had worked as both a prime contractor, consultant or concessionaire, and as a subcontractor, subconsultant or supplier; and 59.7

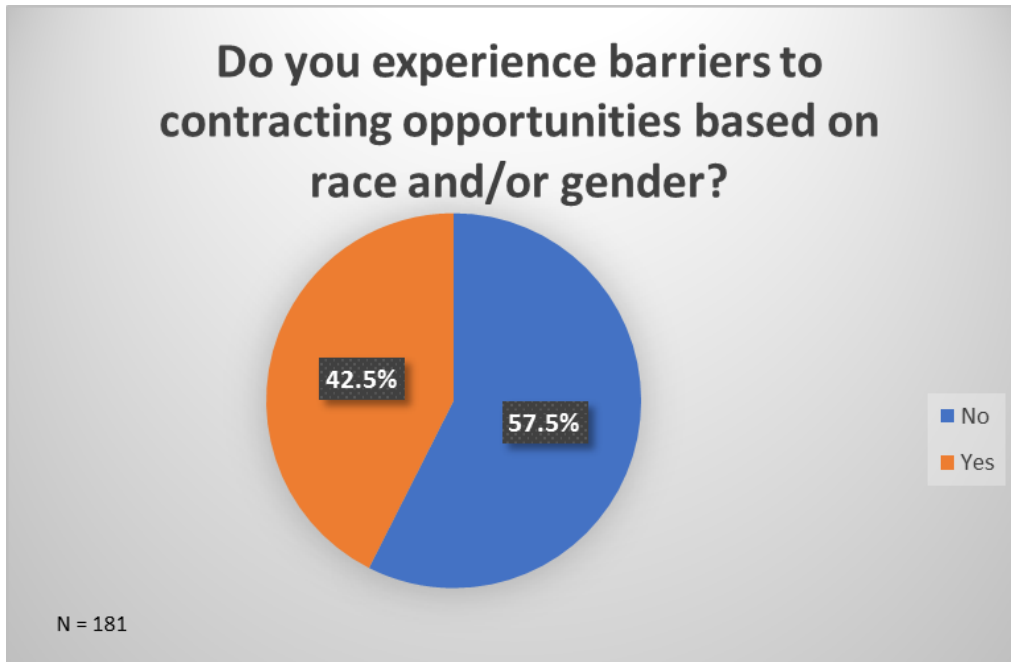
percent had not done business on any MSCAA contracts. The majority (93.4 percent) of minority- and woman-owned firms responding were certified.



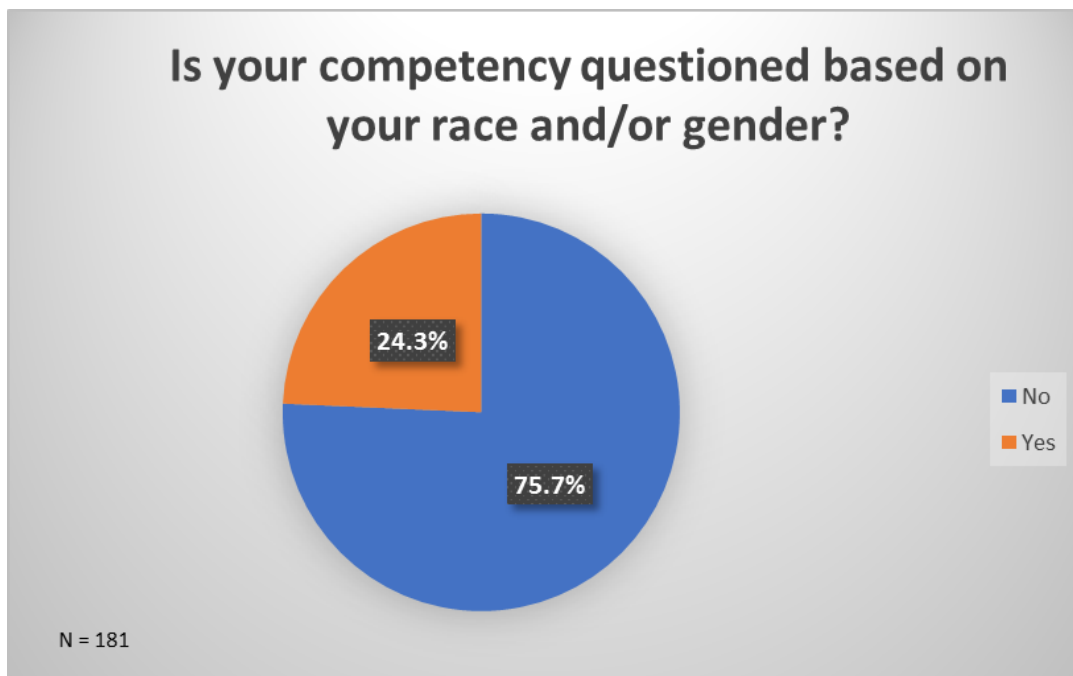
2. Results of the Survey

a. Discriminatory Barriers and Perceptions

Almost 43 percent answered yes to the question “Do you experience barriers to contracting opportunities based on race and/or gender?”



Almost a quarter answered yes to the question, “Is your competency questioned based on your race and/or gender?”

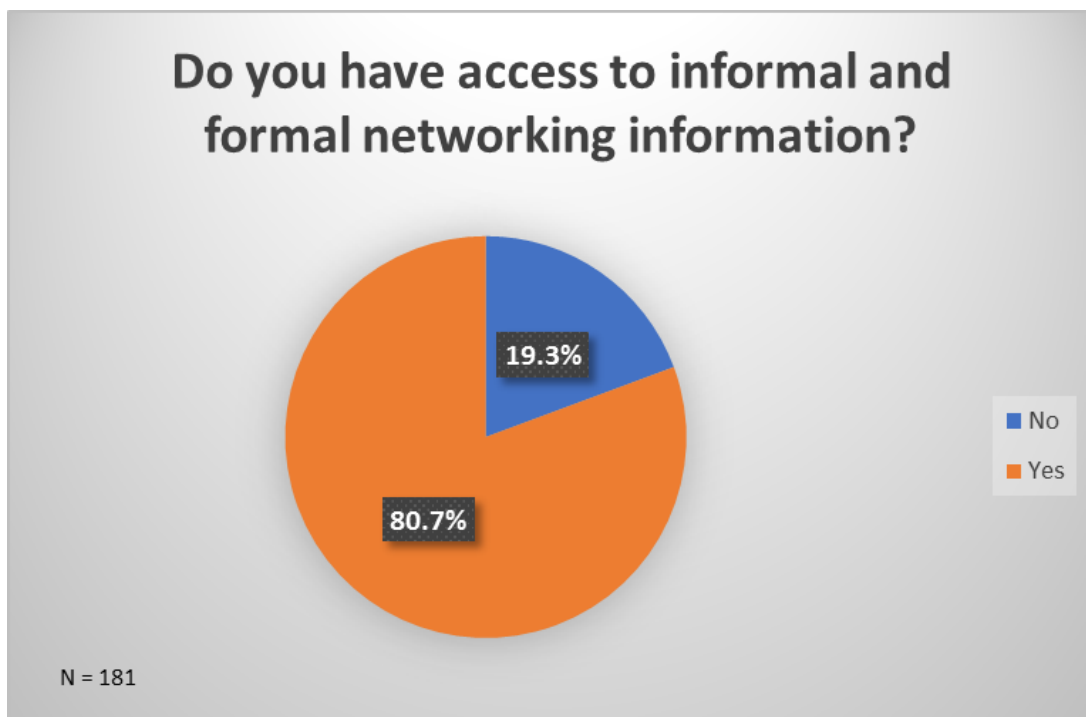


Additionally, 9.4 percent reported that they experience job-related sexual or racial harassment or stereotyping.

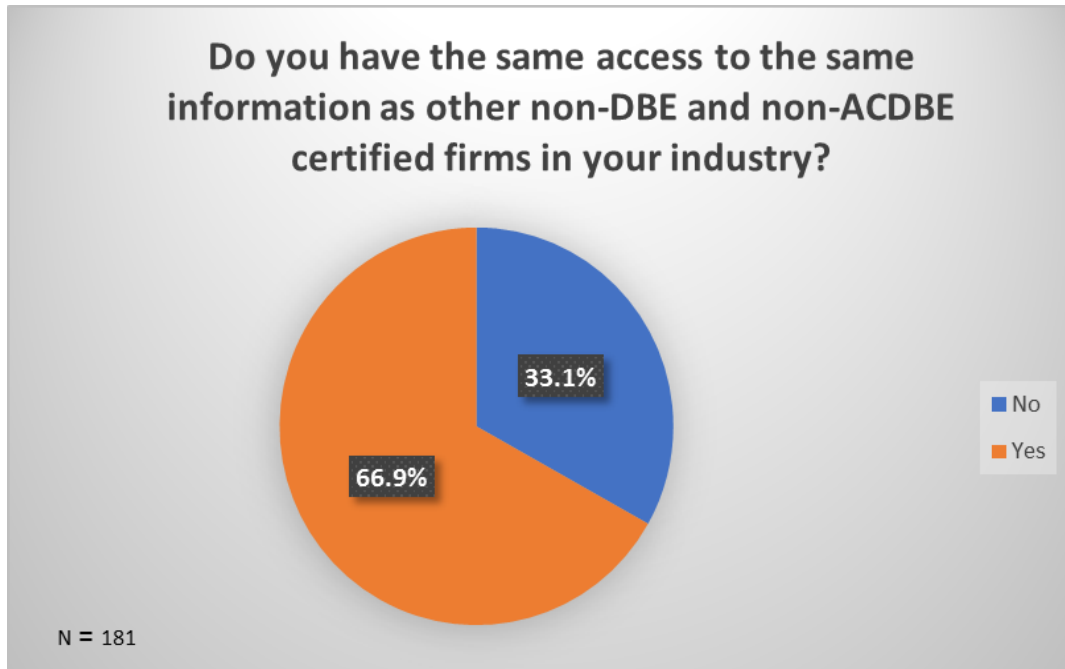
- Fifteen and one-half percent stated that they experience discrimination from suppliers or subcontractors because of their race and/or gender.

b. Access to Formal/Informal Business and Professional Networks

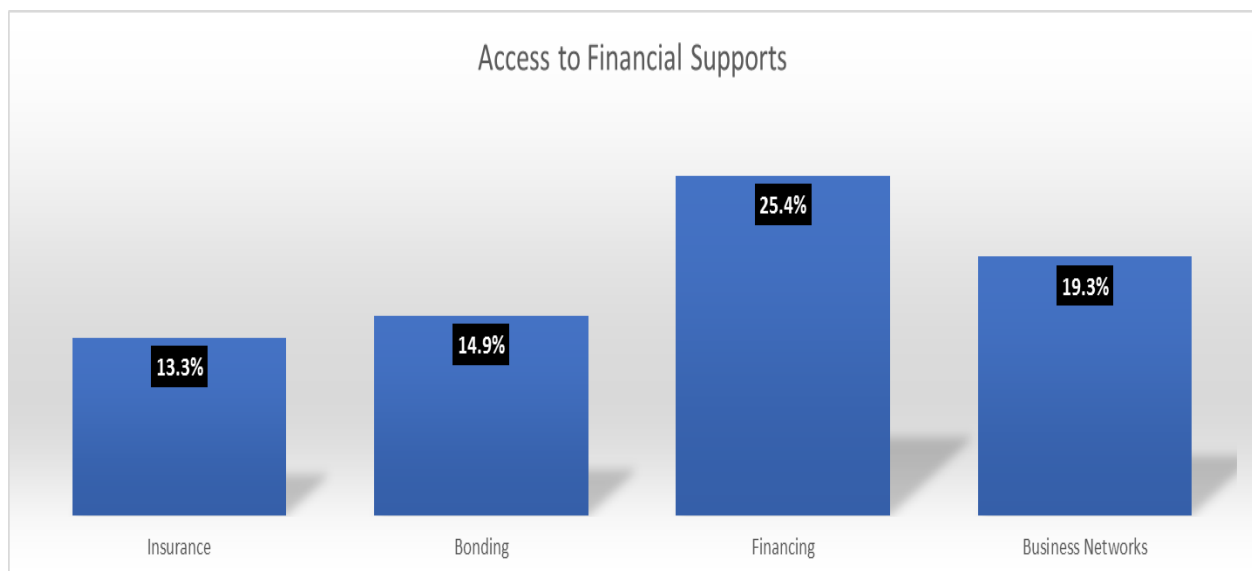
Almost a fifth (19.3 percent) answered no to the question, “Do you have access to informal and formal networking information and have the same access to the same information as other non-M/W/DBE and non-ACDBE firms in your industry?”



A third reported that they did not have the same access to the same information as other non-M/W/DBE and non-ACDBE certified firms in their industry.

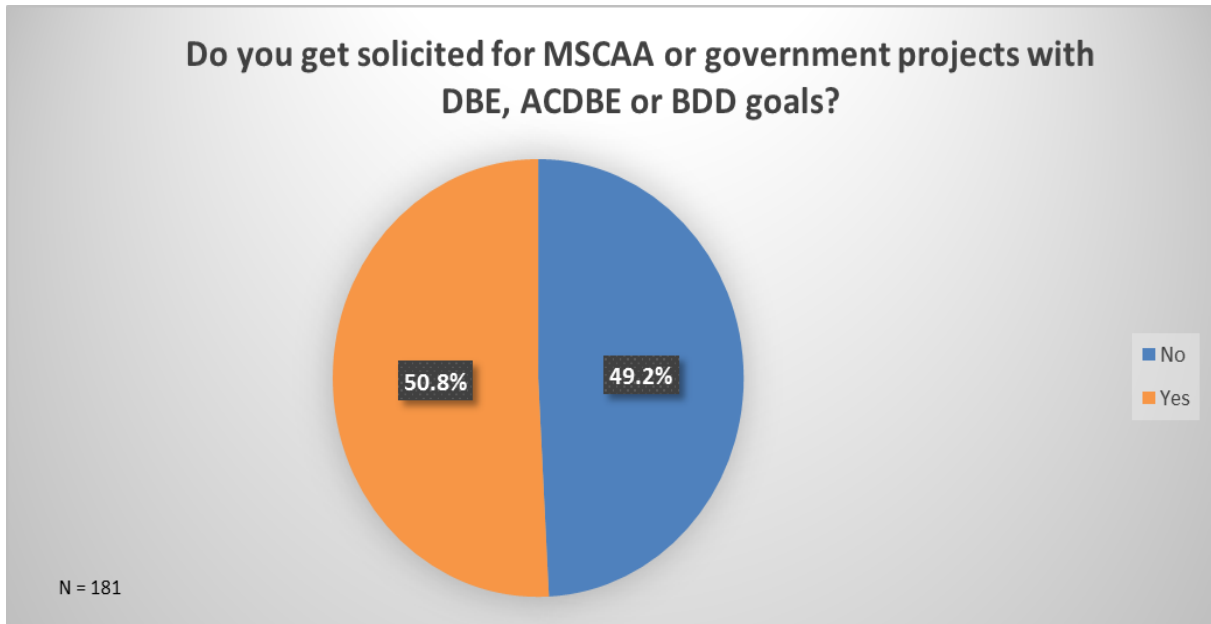


A little more than 13 percent reported they have unequal access to insurance; 14.9 percent reported they have unequal access to surety bonding services; a little more than 25 percent reported they have unequal access to financing and business capital; and almost 20 percent reported lack of access to business networks.



c. Obtaining Work and Payment on an Equal Basis

A little over half of the respondents reported that they are solicited for MSCAA or government projects with DBE, ACDBE, or BDD goals.



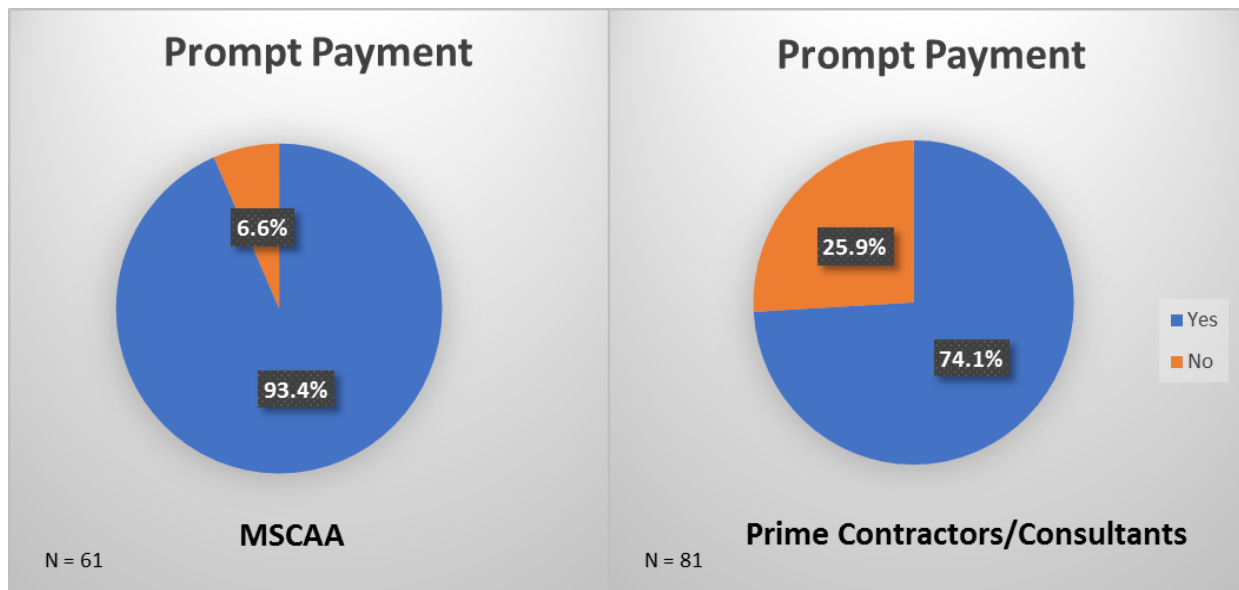
Almost half (49.7 percent) of respondents reported being solicited for private projects without goals.



Over 50 percent said their firm's contract size was either well below (39.8 percent) or slightly below (14.9 percent) the amount they are qualified to perform.



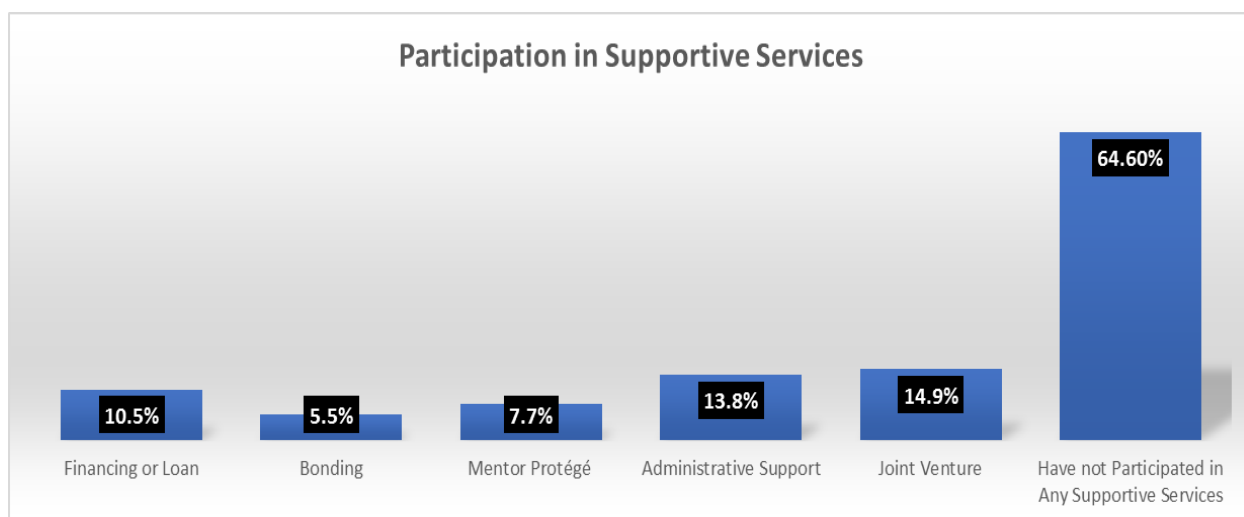
Over 90 percent of the respondents who had reported doing work for MSCAA stated that MSCAA pays them promptly. However, more than 25 percent who had reported doing work for prime contractors/consultants said that prime contractors/consultants do not pay promptly.



d. Capacity Development

A small number of respondents reported participating in DBE, ACDBE, or M/WBE business support or development activities: 64.6 percent indicated they had not participated in any of these programs.¹⁴³

- 10.5 percent had participated in financing or loan programs.
- 5.5 percent had accessed bonding support programs.
- 7.7 percent had participated in a mentor-protégé program or relationship.
- 13.8 percent had received support services such as assistance with marketing, estimating, information technology.
- 14.9 percent had joint ventured with another firm.



e. Written Survey Responses

Open-ended comments from at least 113 respondents were consistent with information provided in the business owner interviews. Most responses centered on barriers to getting MSCAA work. Some offered suggestions to help overcome these barriers:

Subtle biased perceptions about the competency and qualifications of M/W/DBEs limit opportunities.

Most locals tell black business owners that we must have a white face out front to prosper in Memphis, TN.

143. "Not Applicable" includes subcontractors that would not have been paid by MSCAA and firms that had not received MSCAA prime contracts.

[As an African-American/Black-owned firm,] “[w]e are stereotyped as not being as qualified.

They discount [our] ability to deliver immediately.

I constantly have to prove myself and am never given the benefit of the doubt like my majority peers are.

Again, it is not always spoken, but it is subtle and shows up in how differently the response is depending on the race/genders.

There are historically barriers existing when people of color are bidding on certain jobs. I believe African Americans are viewed as not being as qualified and is under more scrutiny.

I answered no [to whether my competency is questioned] because I don't have concrete evidence of this. But based on past experience, I believe it has happened. Consciously or not.

It has been our experience that opportunities made it is often the expectation we will perform below market value.

How do you prove [discrimination]?

I have experienced discrimination based on race as a minority business owner.

Companies limit me due to my race and not my quality or the ability to fulfill the contractual obligation. I am a proud American Puerto Rican.

Subtle and overt stereotyping and sexism continue to disadvantage woman-owned firms.

I have been called the little girl in the office yet I am the owner. I feel like I do not get the same respect when talking to men in the construction industry.

We have been asked by Prime contractors to provide photos of ourselves for use in promotional material so the Prime can show our "pretty faces" to potential clients. We have been told that certain clients like "nice things to look at" when hiring contractors for jobs.

I am female, there is no way I understand piping, welding, sheet metal, duct work, piping systems, air flow, HVAC installation.

I do not have the invitations to be a part of the male orientated get togethers where they decided who does what work. I do not go out drinking or golfing or whatever else. In construction, the top "Males or Men" have an afterhours club.

They don't believe a woman can compete in a male dominated [design] field.

It is not as bad as it used to be. Men used to make passes and [now it's] mostly condescending attitude.

Entrenched relationships and "good ole boy" networks reduce opportunities.

Not having a relationship is a problem.

It still feels like a "boy's club" in this town as well as certain companies being preferred over others, even though they don't benefit the neighborhood.

Most of the General Contractors that have not worked with me, consider me not at all.

"We haven't used your firm before. We prefer to use firms that we have worked with in the past."

If working with a prime or subcontractor to provide goods, they are only interested if the contract has a MBE/WBE/DBE goal. If my services cannot [sic] be counted, they will not accept my bid but go back to the 'good ole boys'.

Several respondents reported that fair opportunities were unavailable.

Bidding directly against large firms, bonding and no true diversity opportunities.

Often our firm is selected only as a sub-consultant and not seriously considered for prime opportunities.

Some time [sic] we are not given the opportunity to perform work we are qualified to perform.

The processes in place favor majority firms.

When bidding on projects, we often have to bid far below our threshold in order to compete for the bid. This does not help us in being able to scale.

Some respondents reported that they have few networking and relationship-building opportunities.

The primes and subcontractors have relationships they prefer to work with.

The informal business network that works for male architects does not work for me.

I do not have access to the key decision maker network.

I usually hear about possible opportunities to do work with certain Contractors until the last minute. They have partnered with a major sub and try to include me days before the bid.

I had to meet three times, with the principals of the one and only insurance company that was willing to talk to me. I had to prove that I understood how my company works. I had to answer lots of questions. Financially, my company should be able to guaranty, but I am forced to sign a personal guaranty, and I am forced to have my husband sign. Business networks are nice, but the ones that count. I am not invited to.

Lack of access to capital and financial support services impedes some firms' abilities to successfully compete.

It is difficult to obtain needed capital for growth.

My ability to compete is based off several factors, some of which include access to capital for business development, travel for opportunity meetings and etc.

Networks to provide funding a[re] critical.

Bonding, in particular, was cited as an obstacle.

Most Black minorities are blocked from bidding or getting jobs due to not being able to get bid bonds. The jobs should be broken in smaller segments so Black minorities can be prime contractors and not always offered crumbs.

Remove Bond restrictions, demand that larger firms mentor and share resources.

If you can't obtain larger contracts because you can't bond them, that becomes a major obstacle to growth.

Contract size was reported to be an impediment. Unbundling projects would help many in taking on more airport work.

Most of the transportation part of the contract goes out to the prime Contractor. If transportation was de bundle [sic] from the prime then I would have an opportunity for work.

The jobs are usually too large so it makes it impossible for us to bid as [a] prime contractor.

More focused networking in general and with prime contractors in particular, along with greater communication about bid and contracting opportunities, were suggested.

I think more exposure would be a good start.

Just knowing about the projects early enough to post RFP/ RFQ for them.

More exposure to the bidding process.

More opportunities for M/WBE DBE businesses like us. Whether it be meetings to inform other contractors of who we are and what we are capable of doing or more construction opportunities.

Networking opportunities, opportunities to meet organizations' procurement officers/decision-makers.

Attending meetings where we get tips on securing contracts and grant opportunities.

Partnering and access to a mentor-protégé program were welcomed as an important approach to increase opportunities.

Being exposed to Joint Ventures with other firms. Assistance in getting to meet Prime Contractors that we could Joint Venture with.

The mentor protege programs seem to be the best method of helping DBEs gain market share in their respective industries. Most DBEs know how to perform their trade but do not know how to effectively run their businesses.

Getting small projects to build bonding capacity [would be helpful].

More supportive services to assist with bonding, financing and insurance would be helpful in creating more access to opportunities.

Funding... working capital.

Having resources available to learn how to pursue professional services contracts would be helpful.

I would like to get some help with bonding support programs.

Insurance companies use an exp. mod rate to charge smaller new contractors. So, I may pay 100 percent of my premium while the prime may have a exp. mod rate of 65 percent paying only 65 percent of their premium rate. Many have less experience than I do.

C. Conclusion

Consistent with other evidence reported in this Study, the interviews and the survey results strongly suggest that minorities and women continue to suffer discriminatory barriers to full and fair access to contracts and associated subcontracts in MSCAA's market area. Many minority- and woman-owned businesses reported reduced opportunities to obtain contracts, less access to formal and informal networks, and greater difficulties in securing financial support relative to non-M/W/DBE/ACDBEs in their industries. The survey comments reflected experiences of biased perceptions and stereotypical behavior about their capabilities and professionalism. About only half have been solicited for government or MSCAA projects. Many indicated that they were working well below their capacity. To overcome some of these barriers, many suggested that they would like to see more supportive services, including a mentor-protégé program, and bonding assistance. Additional opportunities for networking would also be welcomed.

Anecdotal evidence may “vividly complement”¹⁴⁴ statistical evidence of discrimination.¹⁴⁵ Though not sufficient in and of itself, anecdotal evidence can serve as an essential tool for a governmental entity to defend successfully a M/W/DBE type program.¹⁴⁶ While not definitive proof that MSCAA needs to continue to implement race- and gender-conscious remedies for these impediments, the results of the qualitative data are the types of evidence that, especially when considered in conjunction with the numerous pieces of statistical evidence assembled, are relevant and probative of the Authority's evidentiary basis to consider the use of race- and gender-conscious measures to ensure a level playing field for its contracts.

144. *Concrete Works II*, 36 F. 2d 1513, 1520.

145. *Coral Construction Co. v. King County*, 941 F.2d. 910, 919 (9th Cir. 1991).

146. *Engineering Contractors Association of South Florida, Inc., v. Metro Dade County*, 943 F. Supp. 1546, 1578-79 (S.D. Fla. 1996), *aff'd*, 122 F.3d 895 (11th Cir. 1997) (allowing introduction of statements by at least twenty-one contractors and subcontractors describing purported instances of discrimination).

APPENDIX A:

FURTHER EXPLANATION OF THE MULTIPLE REGRESSION ANALYSIS

As explained in the report, 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, age and education 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. Since this report examined the, Memphis-Shelby County Airport Authority, the analysis was limited to data from the Memphis Metropolitan Area. The coefficient for the new variable showed the impact of being a member of that race or gender in the county metropolitan area.

APPENDIX B:

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.¹⁴⁷ 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 the probability of an event (e.g., business formation) occurring. 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.

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

APPENDIX C:

SIGNIFICANCE LEVELS

Many tables in this Report contain asterisks indicating that a number has statistical significance at 0.001, 0.01, or 0.05 levels (sometimes, this is presented as 99.9%; 99% and 95%, respectively) and the body of the report repeats these descriptions. While the use of the term seems important, it is not self-evident what the term means. This Appendix provides a general explanation of significance levels.

This Report 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:

1. What is the relationship between the independent variable and the dependent variable?
2. 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 Memphis-Shelby County Airport Authority as it explores whether each racial and ethnic group and White women continue to experience discrimination in its markets is do non-Whites and White women receive lower wages than White men? As discussed in Appendix A, one way to uncover the relationship between the dependent variable (*e.g.*, wages) and the independent variable (*e.g.*, non-Whites) is through multiple regression analysis. An example helps to explain this concept.

Let us say, for example, this analysis determines that non-Whites receive wages that are 35% less than White men after controlling for other factors, such as education and industry, which might account for the differences in wages. However, this finding is only an estimate of the relationship between the independent variable (*e.g.*, non-Whites) and the dependent variable (*e.g.*, wages) – the first sub-question. It is still important to determine how accurate is that estimation, that is, what is the probability the estimated relationship is equal to zero – the second sub-question.

To resolve the second sub-question, statistical hypothesis tests are utilized. Hypothesis testing assumes that there is no relationship between belonging to a particular demographic group and the level of economic utilization relative to White men (*e.g.*, non-Whites earn identical wages compared to White men or non-Whites earn 0% less than White men). This sometimes is called the null hypothesis. We then calculate a confidence interval to find the probability that

the observed relationship (e.g., - 35%) is between 0 and minus that confidence interval.¹⁴⁸ The confidence interval will vary depending upon the level of confidence (statistical significance) we wish to have in our conclusion. When a number is statistically significant at the 0.001 level, this indicates that we can be 99.9% certain that the number in question (in this example, -35%) lies outside of the confidence interval. When a number is statistically significant at the 0.01 level, this indicates that we can be 99.0% certain that the number in question lies outside of the confidence interval. When a number is statistically significant at the 0.05 level, this indicates that we can be 95.0% certain that the number in question lies outside of the confidence interval.

148. 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.

APPENDIX D:

BEST PRACTICES FOR MINORITY, WOMAN AND DISADVANTAGED BUSINESS ENTERPRISE PROGRAMS

Below we provide suggestions for best practices MSCAA should consider as it reviews its Disadvantaged Business Enterprise (“DBE”), Airport Concessions Disadvantaged Business Enterprise (“ACDBE”) and BDD Programs.

1. Enhance Race- and Gender-Neutral Initiatives

The courts and the DBE and ACDBE Program regulations require that a recipient use race-neutral approaches to the “maximum feasible” extent to meet the overall goals.¹⁴⁹ This is a critical element of narrowly tailoring the race- and gender-conscious contracting programs, so that the burden on non-M/W/DBEs is no more than necessary to achieve the agency’s remedial purposes. Increased participation by M/W/DBEs through race-neutral measures will also reduce the need to set contract goals, which is another requirement of the regulations.¹⁵⁰ Best practices for race- and gender-neutral approaches include the following:

i. Ensure Multiple Avenues for Networking Opportunities for M/W/DBEs

It is important that an agency provide sufficient outreach events and opportunities for M/W/DBEs to meet agency contracting staff, as well as large prime vendors to whom M/W/DBEs might subcontract. Smaller sessions with a focus on specific departments, beyond procurement and engineering, are helpful. Extensive outreach is a vehicle

149. 49 C.F.R. § 26.51(a). *See also* 49 C.F.R. § 23.25(d) (“You must maximize the use of race-neutral measures, obtaining as much as possible of the ACDBE participation needed to meet overall goals through such measures.”).

150. 49 C.F.R. §26.51(f)(1).

to increase access to information and networks otherwise closed to minority and woman owners. An annual meeting to discuss forecasted projects can also be helpful.

ii. Create Channels for M/W/DBEs to Market Their Firms

Prime contractors and certified firms can sometimes be stymied about how to make meaningful connections between these groups. The list of certified firms is often long and inaccurate. One way to increase communication is to develop a site where M/W/DBEs who are specifically interested in agency work can provide information about their companies. This will assist everyone in obtaining critical information to improve the process of conducting good faith efforts to meet goals.

iii. Ensure Accurate Assignment of Industry Codes in the M/W/DBE Certification Process

In some contracting equity programs, firms are certified in so many codes that it is difficult to discern what they are actually capable of performing. Similarly, firms may be certified in multiple codes that often have little relationship to each other. Further, contact information can often be outdated. It is a best practice to regularly review the list for accuracy. In addition, firms should be encouraged to apply for certification only in scopes they can perform; certification should not function as an aspirational status. These requirements should be clearly explained to applicants at the outset of the process.

iv. Administer a Small Business Participation Program

49 C.F.R. § 26.39 requires a recipient of USDOT funds to include elements to encourage participation by small business concerns. One possibility is to set aside appropriate contracts for bidding only by firms certified as small businesses.¹⁵¹ This race-neutral measure can be expanded beyond construction contracts to other industries and non-FAA funded contracts, including professional services. This should increase opportunities for M/W/DBEs and other small firms to perform as prime vendors and reduce the use of contract goals.

It is important to ensure that M/W/DBEs are aware of any of these elements adopted by the recipient. The agency should widely publicize all benefits, including any alternative method. Information can be pre-

151. See Los Angeles Metro's SBE Program at https://business.metro.net/VendorPortal/faces/home/smallBusinessTools/smallBusinessPrimeProgram?_adf.ctrl-state=15ujr7oh9j_4&_afLoop=33380383686639.

sented through information sessions targeting M/W/DBEs and other small firms that could possibly perform as prime vendors.

v. Partner with Other Government Agencies or Not-For-Profit Organizations to Provide Technical Assistance and Supportive Services to M/W/DBEs

M/W/DBEs and prime contractors we have interviewed in conducting dozens of disparity studies across the country report that more supportive services would enhance M/W/DBEs' capacities as both prime contractors and subcontractors and the ability of prime contractors to meet goals. Areas commonly mentioned include better accounting practices, correct and timely submission of certified payrolls, adequate cash flow maintenance, safety compliance, quality control, and general business skills.

An agency might consider partnering with other local governments or a consortium of not-for-profit organizations to provide some of these types of services, to save money and to increase the pool of firms that would participate.¹⁵²

vi. Implement a Guaranteed Surety Bonding Program for Small Firms

Access to bonding and working capital are repeatedly cited by M/W/DBEs across the nation as significant barriers to the development and success of their businesses. An agency should consider implementing a program that addresses these critical components necessary to increase these firms' abilities to obtain agency contracts and subcontracts.

One model is the City and County of San Francisco's Surety Bond and Financing Program.¹⁵³ This Program makes bonding, financing and technical assistance available to eligible, certified contractors. The Program targets small contractors and DBEs and includes a loan guarantee pool that provides collateral for loans and bonds up to \$750,000 on construction projects throughout the City. A separate component specifically targets contractors for upcoming mega-projects. The Program includes:

- Consultative and technical assistance;

152. See the Illinois Tollway's program at <https://ihccbusiness.net/ihcc-tollway>.

153. See <https://imwis.com/services/contractor-bonding-development-programs>.

- 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 (payment management system);
- Contract monitoring; and
- Pre-claims resolution.

vii. Increase Contract “Unbundling”

Government projects are often very large and complex. Not surprisingly, contract size is a disincentive to small firms to seek contracts, especially for transportation agencies. Smaller contracts are an important race-neutral component to a defensible program. Unbundling projects, providing longer lead times and simplifying requirements would assist smaller businesses to take on some agency work. In conjunction with reduced insurance and bonding requirements where possible, unbundled contracts should permit smaller firms to move from quoting solely as subcontractors to bidding as prime contractors, as well as enhance their subcontracting opportunities. Unbundling must be conducted, however, within the constraints of the need to ensure efficiency and limit costs to taxpayers.

viii. Ensure Specification, Experience and Surety Bond Requirements are No Greater than Necessary

An agency should regularly review qualification requirements to ensure that M/W/DBEs, smaller and newer firms are not unfairly disadvantaged and that there is adequate competition for its work.

Requiring a performance bond for professional services contracts is especially burdensome for small consulting firms. While rare, this is an unnecessary expense and burden to proposers. The difficulty of obtaining bonds outside a surety's normal lines of coverage increases the costs to small firms that may not be able to absorb it. Further, because it is essentially a credit mechanism, it builds into the agency's procurement process another barrier to fair credit that minority firms experience throughout the financial system.

ix. Adopt an Electronic Bid System

Implementing an electronic system to submit bids and proposals supports the participation of more firms, especially small businesses. There are many vendors that provide systems for bidding. Failing to implement a web-based system has at least two negative consequences for M/W/DBEs and small firms. First, it is so time consuming to submit paper bids that smaller firms that cannot spare staff to drive to the agency's headquarters to submit the paperwork are discouraged from seeking work as prime contractors. Second, paper bidding increases costs; current technology can help to level the playing field between large firms with staff to manage paper and smaller firms that cannot afford full-time marketing departments. Finally, the longer lead times necessary to manage a paper process shortens the time for subcontractors to provide bids or quotes and reduces the possibility that a prime bidder will take a chance on a new firm it may not have sufficient time to vet. This may lead to a concentration of work into a smaller subset of certified M/W/DBEs.

x. Provide Sufficient Training to Prime Bidders on Program Compliance

It is important that prime vendors believe that the programs' goals do not function as rigid requirements, and that the submission of adequate good faith efforts documentation will be accepted. An agency should provide targeted training on the requirements for all aspects of compliance, including the standards for submitting and approving submissions that do not meet the contract goal and reporting utilization of certified firms, so that bidders understand that the programs are in fact flexible.

xi. Ensure Bidder Non-Discrimination and Fairly Priced Subcontractor Quotations

M/W/DBEs across the country sometimes voice concerns that prime contractors may not be soliciting their subcontractor quotes in good faith to meet contract goals or fail to solicit them at all on non-goals projects. Many prime contractors report that using certified firms increases their costs and risks.

To investigate these claims, an agency can require bidders to maintain all subcontractor quotes received on specified projects. Compliance could be treated as an element of maintaining prequalification or of being deemed a responsible bidder. At the agency's discretion, the

prices and scopes could then be compared to evaluate whether bidders are in fact soliciting and contracting with subcontractors on a non-discriminatory basis and if M/W/DBEs cost more than White-male owned firms.¹⁵⁴

xii. Enhance Contracting and Procurement Data Collection

A fundamental component of program success is measurement and analysis. Compliance systems have been used nationally for decades by hundreds of local, state, and federal agencies. A complete and comprehensive electronic data collection system is therefore a cornerstone of program compliance and monitoring. Further, the ability to quickly locate and disseminate information is key to program responsiveness. An electronic outreach system allows an agency to send crafted messages to any customized list of vendors/suppliers for communicating program updates, changes in policies and procedures, upcoming events, upcoming training sessions, bid notifications, etc. Additionally, a system should assist with setting narrowly tailored, defensible and transparent contract goals. Finally, a good system should provide the comprehensive data extraction needed to conduct a disparity study.

The functional requirements for an electronic system will vary based on the type of agency and the elements of the program. Foundational components include those listed below. Some systems will offer add-on functions to support additional program activities like pre-qualification registration, workforce hiring and utilization monitoring, bid posting, and contractor insurance tracking.

- Outreach and Event Management:
 - Create “campaigns” for email blasts and crafted messages to a customized list of any type of vendor (certified, primes, sub, local, etc.). This can include program notices, bid notification to suppliers, requests for information, seminar/training session with optional online RSVP capabilities, or any other messages with text, graphics, web links, and/or attachments.
 - Facilitate event management for online attendee registration, RSVPs, mobile check-in and attendance tracking.

154. A similar program element was part of the court-approved DBE plan for the Illinois Department of Transportation. *Northern Contracting, Inc. v. Illinois Department of Transportation*, 2005 U.S. Dist. LEXIS 19868, at * 87 (Sept. 8, 2005) (“IDOT requires contractors seeking prequalification to maintain and produce solicitation records on all projects... Such evidence will assist IDOT in investigating and evaluating discrimination complaints.”).

- Permit users to search for firms by name, region, or NAICS/ NIGP/CSI code(s), and then add them to a contact list.
- Provide automated, pre-set reminders.
- Track views of emails and public bulletin board postings to report how many people are seeing the messages.
- Include links to external survey tools.
- Contract Goal Setting:
 - Set legally defensible goals based on statistical data and past achievement.
 - Allow for a goal adjustment based on any additional market and industry information.
 - Facilitate a consistent, transparent and legally defensible goal setting process with complete documentation of all data and factors used in the goal determination.
- M/W/D/SBE Utilization Plans:
 - Permit bidders to build and submit M/W/D/SBE utilization plans, and assign subcontractors based on real-time certification status and work categories.
 - Support staff electronic reviews and approvals/denials of submitted plans.
 - Collect subcontractor details, including contact information, certification status, work description, commodity codes, work dates, and documentation.
 - Permit waiver information/documentation for utilization plans below the contract goal.
 - Permit subcontractors to electronically confirm their participation in the plan.
 - Transfer subcontractors from an approved utilization plan to the contract record for compliance monitoring, eliminating double entry.
- Contract Compliance:
 - Add multiple tiers of subcontractors.
 - Provide multiple parameters to describe and categorize contracts.

- Facilitate recording of change orders/amendments: When change orders or contract amendments impact the goal, the system should automatically re-calculate the new goal based upon original and new data.
- Generate contract notices to primes and subcontractors for award, not meeting goal status, and close-out.
- Facilitate contract close-out with retainage verification and prime contractor rating.
- Import contract and payment data from financial/ERP/contract management systems.
- Automatically generate periodic compliance audits and notify prime contractors and subcontractors to report lower tier payments, prompt payment status (if applicable), withheld (if applicable), and provide other required information and documentation as required by organization policy or regulation.
- Facilitate an automated discrepancy process if contractors do not agree on reported payment information.
- Provide staff users access to all compliance data for reporting and audit.
- Auto-lock reports to unresponsive contractors.
- Track detailed payment histories to ensure compliance with prompt payment requirements, including submitting user, date/time and comments, with archival of previous submission.
- Disparity Study Data Collection:
 - Collection of mandatory data necessary to support a disparity study.
 - Provide onscreen highlights and alerts to ensure entry of disparity study data fields.
 - Provide reports to provide data extracts to disparity study consultants.
 - Provide analytic reports to identify data gaps and provide perspective of organization's data readiness for a disparity study.
- Certification Applications and Management:
 - Facilitate online applications.

- Provide applicants the electronic workflow process that guides them from the beginning to the end of the process.
- Permit vendors to access application forms, start and save them for later, attach documents electronically, restrict or grant access to the application, and electronically sign and submit.
- Permit applicants to submit supporting documents by online upload.
- Provide a "Question & Answer" tool to facilitate post-submission information and document exchange that is tracked and auditable.
- Create a “pipeline” of applications prior to submission and allow for tracking abandoned applications.
- Allow flexibility for applicants that require ADA and/or technology accommodations.
- Manage certification records.
- Publish online certified directory.

In addition, all departments must enter data into the system to ensure all contract information from all departments is captured in the system to facilitate future disparity study research.

xiii. Mandate Sufficient Document Retention Time for Prime Contractors

Contractors should maintain full records for at least five years, to facilitate any future disparity studies.

2. Implement Narrowly Tailored DBE and ACDBE Goals

i. Use Disparity Study Results to Set the Triennial DBE and ACDBE Triennial Goals

49 C.F.R. Part 26 and Part 23 require a recipient to engage in a two-step process to set a triennial goal for DBE participation in its federally funded projects and an overall ACDBE goal for concession contracts. To determine the Step 1 base figure for the relative availability of DBEs required by § 26.45(c) and the relative availability of ACDBEs required by §23.51(c), a recipient should use its Disparity Study’s DBE and ACDBE weighted availability findings.

To perform the Step 2 analysis required by § 26.45(d) and §26.51(d) to adjust the Step 1 figure to reflect the level of DBE availability and ACDBE availability that would be expected in the absence of discrimination, an agency can use the economy-wide statistical disparities in Chapter IV in the rates at which DBEs form businesses. This is the type of “demonstrable evidence that is logically and directly related to the effect for which the adjustment is sought.”¹⁵⁵

ii. Use the Study to Set DBE and ACDBE Contract Goals

A disparity study’s highly detailed unweighted availability estimates can serve as the starting point for narrowly tailored contract goal setting that reflects the percentage of available DBEs and the percentage of available ACDBEs as a percentage of the total pool of available firms. An agency should weigh the estimated scopes of the contract by the availability of DBEs in those scopes, and then adjust the result based on geography and current market conditions (for example, the volume of work currently underway in the market, the entrance of newly certified firms, specialized nature of the project, etc.). This meets the recipient’s constitutional responsibility to ensure that its implementation of Part 26 and Part 23 continues to be narrowly tailored to its geographic and procurement market area.

As discussed above, a comprehensive electronic data collection and monitoring system should contain a contract goal setting module developed to utilize the study’s unweighted availability at the most detailed level possible (*i.e.*, 6-digit NAICS codes) data as the starting point. Written procedures based on the study results detailing the implementation of contract goal setting should be developed and disseminated so that all contracting actors understand the methodology.

iii. Adopt a Pilot Mentor-Protégé Program

An agency should consider adopting a pilot Mentor-Protégé Program for M/W/DBEs. We suggest starting with construction firms, as that is the industry in which these programs have been mostly implemented and for which there are successful examples. An excellent national model is provided in the DBE program regulations at 49 C.F.R. § 26.35 and the Guidelines of Appendix D to Part 26. In addition to the standards provided in Part 26, the General Counsel’s Office at the USDOT has provided some additional guidance¹⁵⁶, and the USDOT’s Office of

155. 49 CFR § 26.45(d)(3); *see also* §23.51.

Small Disadvantaged Business Utilization has adopted a pilot program¹⁵⁷ and has drafted sample documents.¹⁵⁸

Many M/W/DBEs and large prime contractors across the country have described the need to increase M/W/DBEs' capacities. Skill sets such as estimating, understanding of and adherence to specifications, billing and scheduling, accounting, safety, marketing, and meeting prequalification standards are possible areas of focus.

The following elements reflect best practices:

- A description of the qualifications of the mentor, including the firm's number of years of experience as a construction contractor or consultant; the agreement to devote a specified number of hours per month to working with the protégé; and the qualifications of the lead individual responsible for implementing the development plan.
- A description of the qualifications of the protégé, including the firm's number of years of experience as a construction contractor or consultant; the agreement to devote a specified number of hours per month to working with the mentor; and the qualifications of the M/W/DBE owner(s).
- An agency-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 action plans, and the services and resources to be provided by the mentor to the protégé. The assistance provided by the mentor must be detailed and directly relevant to agency projects. The development targets should be quantifiable and verifiable— such as increased bonding capacity, increased sales, increased areas of work specialty or prequalification, etc.— and reflect objectives that increase the protégé's capacities and expand its business areas and expertise.
- A long term and specific commitment between the parties, e.g., 12 to 36 months.
- The use of any equipment or equipment rental must be detailed in the plan, and should be further covered by bills of sale, lease

156. <https://www.transportation.gov/civil-rights/disadvantaged-business-enterprise/official-questions-and-answers-qas-dis-advantaged>.

157. <https://www.transportation.gov/osdbu/procurement-assistance/mentor-protege-pilot-program>.

158. <https://www.transportation.gov/small-business/procurement-assistance/mentor-protege-program-sample-agreement-1>.

agreements, etc., and require prior written approval by the agency.

- Any financial assistance by the mentor to the protégé must be subject to prior written approval by the agency and must not permit the mentor to assume control of the protégé.
- A fee schedule to cover the direct and indirect cost for services provided by the mentor for specific training and assistance to the protégé.
- The development plan must contain a provision that it may be terminated by mutual consent or by the agency if the protégé no longer meets the eligibility standards for M/W/DBE certification; either party desires to be removed from the relationship; either party has failed or is unable to meet its obligations under the plan; the protégé is not progressing or is not likely to progress in accordance with the plan; the protégé has reached a satisfactory level of self-sufficiency to compete without resorting to the plan; or the plan or its provisions are contrary to legal requirements.
- Submission of quarterly reports by the parties indicating their progress toward each of the plan's goals.
- Regular review by the agency of compliance with the plan and progress towards meeting its objectives. Failure to adhere to the terms of the plan or to make satisfactory progress would be grounds for termination from the program.

This level of direction and oversight may require additional agency resources from the BDD Office and relevant user departments. Close monitoring of the program will be critical, but other entities have reported success with such an approved approach.¹⁵⁹

iv. Evaluate the Need for a Program for Locally Funded Contracts

A disparity study's results should be examined to determine whether the findings support the conclusion that the agency has a "strong basis in evidence" to implement race- and gender-conscious measures for its non-federal aid contracts. Factors to consider are:

159. See <https://new.mta.info/doing-business-with-us/small-business-programs> (New York Metropolitan Transit Authority); <https://www.illinoistollway.com/documents/20184/87215/DBE+Partnering+for+Growth+GUIDELINES+09-2016.pdf/5b8eed8c-8d47-4ec5-bcad-7300a38c76b6> (Illinois State Toll Highway Authority); <https://www.modot.org/sites/default/files/documents/ecr/ecr/documents/modotmentorprotegeprogram-finalrevision-06-17-2014.pdf> (Missouri Department of Transportation).

- Does the study provide quantitative evidence of discriminatory practices and attitudes that impede opportunities for minorities and women on agency projects, regardless of the funding source? Are the disparity results statistically and/or substantively significant for any groups? If not, are the results driven by a few contracts awarded to a small number of firms? What is the impact on the results of the agency's current remedial activities? Can parity be archived or maintained in the absence of contract goals?
- Does the study find disparities in M/W/DBEs' access to private sector contracts overall, and to those factors necessary for business success, such as access to the market for commercial credit, leading to the inference that discrimination is a significant cause of those disparities? Are there large, adverse and statistically significant disparities for M/W/DBEs in business formation, business owner earnings and access to commercial credit and capital when compared to similarly situated non-minority male-owned firms?
- Does the anecdotal evidence support the conclusion that discrimination remains a major barrier to the full and fair participation of minority- and woman-owned firms on agency contracts? Do minorities and women report that contracting affirmative action is still needed to ensure equal opportunities for agency contracts and associated subcontracts?
- If the study results support a race- and gender-conscious local program, what remedies are supportable and effective? Are participating firms required to be owned by economically disadvantaged persons and that the firms be small? How are contract goals set? How is a bidder able to demonstrate its good faith efforts to meet contract goals? How is the certified firm's commercially useful function determined and monitored? What are the standards and processes for substituting a non-performing certified firm? How is a prime contractor's compliance with prompt payment requirements enforced? What sanctions may be imposed for non-compliance with program and contractual commitments?

It is helpful for an agency to bid some contracts that it determines have significant opportunities for M/W/DBE participation without any contract goals. This can be especially important to determining whether an entity with a long-established program continues to have a compelling

interested in using race and gender in the consideration of contract awards.

Finally, to meet the requirements of strict constitutional scrutiny, an agency should continue to regularly review the evidentiary basis for its program and whether its implementation remains narrowly tailored to current evidence. A sunset date for the program, establishing when it will end unless reauthorized, is suggested to meet the constitutional requirement of narrow tailoring that race-conscious measures be used only when necessary.

Finally, an agency should develop quantitative performance measures for certified firms and the overall success of the program to evaluate its effectiveness in reducing the systemic barriers identified by the study. In addition to meeting the annual goal(s), possible benchmarks might include:

- The number of bids or proposals and the dollar amount of the awards, and the goal shortfall where the bidder submitted good faith efforts to meet the contract goal;
- The number and dollar amount of bids or proposals rejected as non-responsive for failure to make good faith efforts to meet the goal;
- The number, type, and dollar amount of M/W/DBE substitutions during contract performance;
- Increased bidding by certified firms;
- Increased prime contract awards to certified firms; and
- Increased “capacity” of certified firms as measured by bonding limits, size of jobs, profitability, etc.

APPENDIX E:

LEGAL STANDARDS FOR GOVERNMENT AFFIRMATIVE ACTION CONTRACTING PROGRAMS

1. Summary of Constitutional Equal Protection Standards

To be effective, enforceable, and legally defensible, a race-based affirmative action program for public sector contracts, regardless of funding source, must meet the judicial test of constitutional “strict scrutiny”.¹⁶⁰ Strict scrutiny is the highest level of judicial review¹⁶¹ and is comprised of two prongs:

1. The government must establish its “compelling interest” in remediating 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.
2. Any remedies adopted must be “narrowly tailored” to that discrimination; the program must be directed at the types and depth of discrimination identified.¹⁶²

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

1. Statistical evidence of the underutilization of minority or woman 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 referred to as disparity indices.
2. Anecdotal evidence of race- or gender-based barriers to the full and fair participation of minority- and woman-owned firms in the market area or in seeking contracts with the agency, comparable to the “disparate

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

161. Legal scholars frequently note that strict scrutiny constitutes the most rigorous form of judicial review. *See, for example*, Richard H. Fallon, Jr., *Strict Judicial Scrutiny*, 54 UCLA Law Review 1267, 1273 (2007).

162. *Croson*, 488 U.S. at 510.

treatment” analysis used in employment discrimination cases.¹⁶³ Anecdotal data can consist of interviews, surveys, public hearings, academic literature, judicial decisions, legislative reports, and other information.

The narrow tailoring prong has been met by satisfying the following factors to ensure that the remedy “fits” the evidence:

1. The necessity of relief;¹⁶⁴
2. The efficacy of race-neutral remedies at overcoming identified discrimination;¹⁶⁵
3. The flexibility and duration of the relief, including the availability of waiver provisions;¹⁶⁶
4. The relationship of numerical goals to the relevant market;¹⁶⁷
5. The impact of the relief on the rights of third parties; and¹⁶⁸
6. The over-inclusiveness or under-inclusiveness of the racial classifications.¹⁶⁹

In *Adarand v. Peña*,¹⁷⁰ the United States Supreme Court extended the analysis of strict scrutiny to race-based federal enactments such as the United States Department of Transportation (“USDOT”) Disadvantaged Business Enterprise (“DBE”) program for federally assisted transportation contracts (which applies to the Memphis-Shelby County Airport Authority’s (“MSCAA” or “Airport Authority”) Federal Aviation Administration (“FAA”) assisted prime contracts and related subcontracts and airport concession contracts).¹⁷¹ Just as in the local government context, the national legislature must have a compelling governmental interest for the use of race, and the remedies adopted must be narrowly tailored to that evidence.¹⁷²

For state or local WBE programs, however, most lower courts have applied “intermediate scrutiny” analysis: gender-based classifications must be sup-

163. *Id.* at 509.

164. *Croson*, 488 U.S. at 507; *Adarand Constructors, Inc. v. Peña*, 515 U.S. 200, 237-238 (1995) (“*Adarand III*”).

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

166. *Id.*

167. *Id.*

168. *See Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation*, 713 F.3d 1187, 1198-1199 (9th Cir. 2013); *Western States Paving Co., Inc. v. United States*, 407 F. 3d 983, 998 (9th Cir. 2005); *Adarand Constructors, Inc. v. Slater*, 228 F.3d 1147, 1177 (10th Cir. 2000) (“*Adarand VII*”), *cert. dismissed as improvidently granted*, 534 U.S. 103 (2001); *Paradise*, 480 U.S. 149, 171.

169. *Croson*, 488 U.S. at 506.

170. *Adarand III*, 515 U.S. 200.

171. 49 C.F.R. Part 26 and Part 23.

172. *See, for example, Croson*, 488 U.S. at 492-493; *Adarand III*, 515 U.S. 200, 227.

ported by an exceedingly persuasive justification and be substantially related to the objective.¹⁷³ The Sixth Circuit Court of Appeals is an exception. Prior to *Croson*, the Sixth Circuit employed an intermediate scrutiny standard.¹⁷⁴ Subsequent to the decision, it has applied strict scrutiny.¹⁷⁵

Classifications not based upon a suspect class (race, ethnicity, religion, national origin or gender) are subject to the lesser standard of review called “rational basis” scrutiny.¹⁷⁶ The courts have held there are no equal protection implications under the Fourteenth Amendment of the United States Constitution for groups not subject to systemic discrimination.¹⁷⁷ In contrast to “strict scrutiny” and to “intermediate scrutiny”, “rational basis” means the governmental action or statutory classification must be “rationally related” to a “legitimate” government interest. Thus, preferences for persons with disabilities or veteran status may be enacted with vastly less evidence than that required for race- or gender-based measures to combat historic discrimination.

Unlike most legal challenges, the defendant bears the initial burden of producing “strong evidence” in support of its race-conscious program.¹⁷⁸ 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.¹⁷⁹ “[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.”¹⁸⁰

A plaintiff “cannot meet its burden of proof through conjecture and unsupported criticism of [the government’s] evidence.”¹⁸¹ To successfully rebut the

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173. See *Associated Utility Contractors of Maryland, Inc. v. Mayor and City Council of Baltimore and Maryland Minority Contractors Association, Inc.*, 83 F. Supp. 2d 613, 620 (D. Md. 2000) (“*Baltimore I*”); *W.H. Scott Construction Co., v. City of Jackson, Mississippi*, 199 F.3d 206, 215 n.6 (5th Cir. 1999), *Engineering Contractors Ass’n of South Florida v. Metropolitan Dade County*, 122 F. 3d 895, 907-911 (11th Cir. 1997) (“*Engineering Contractors II*”); *Concrete Works of Colorado, Inc. v. City and County of Denver*, 36 F.3d 1513, 1519 (10th Cir. 1994) (“*Concrete Works II*”); *Contractors Ass’n of Eastern Pennsylvania v. City of Philadelphia*, 6 F.3d 990, 1009-1011 (3rd Cir. 1993); *Coral Construction Co. v. King County*, 941 F.2d 910, 930-931 (9th Cir. 1991).
174. *Michigan Road Builders Ass’n v. Milliken*, 834 F.2d 583, 595 (6th Cir. 1987).
175. *Brunet v. City of Columbus*, 1 F.3d 390, 404 (6th Cir. 1993) (“Under the precedent in this Circuit, gender-based affirmative action plans are subject to strict scrutiny when challenged under the Equal Protection Clause”), *cert. denied sub nom. Brunet v. Tucker*, 510 U.S. 1164 (1994); see also *Conlin v. Blanchard*, 890 F. 2d 811, 816 (6th Cir. 1989).
176. See *Equality Foundation v. City of Cincinnati*, 128 F.3d 289 (6th Cir. 1997); *Coral Construction Co v. King County*, 941 F. 2d 910 (9th Cir. 1991).
177. *United States v. Carolene Products Co.*, 304 U.S. 144 (1938).
178. *Aiken v. City of Memphis*, 37 F.3d 1155, 1162 (6th Cir. 1994).
179. *Scott*, 199 F.3d at 219; *Adarand VII* at 1166.
180. *Engineering Contractors II*, 122 F.3d 895, 916.
181. *Concrete Works of Colorado, Inc. v. City and County of Denver*, 321 F.3d 950, 989 (10th Cir. 2003), *cert. denied*, 540 U.S. 1027 (2003) (“*Concrete Works IV*”).

government's evidence, a plaintiff must introduce "credible, particularized evidence" that rebuts the government's showing of a strong basis in evidence.¹⁸² 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 federally assisted highway contracts. Therefore, they failed to meet their ultimate burden to prove that the DBE program is unconstitutional on this ground."¹⁸³ When the statistical information is sufficient to support the inference of discrimination, the plaintiff must prove that the statistics are flawed.¹⁸⁴ A plaintiff cannot rest upon general criticisms of studies or other related evidence; it must meet its burden that the government's proof is inadequate to meet strict scrutiny, rendering the legislation or government program illegal.¹⁸⁵

To meet strict scrutiny, studies have been conducted to 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 woman-owned firms and their actual utilization compared to White male-owned businesses. Many studies also examine the elements of the agency's program to determine whether it is sufficiently narrowly tailored. The following is a discussion of the legal parameters and the requirements for conducting studies to support defensible programs.

2. Elements of Strict Scrutiny

In its decision in *City of Richmond v. J.A. Croson Co.*, the United States Supreme Court established the constitutional contours of permissible race-based public contracting programs. Reversing long established Equal Protection jurisprudence, 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 inures to the benefit of these victims of historic discrimination. Strict scrutiny requires that a government entity prove both its

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182. *H.B. Rowe Co., Inc. v. W. Lyndo Tippet, North Carolina Department of Transportation, et. al.*, 615 F.3d 233, 241-242 (4th Cir. 2010); *Midwest Fence Corporation v. United States Department of Transportation, Illinois Department of Transportation, Illinois State Toll Highway Authority*, 84 F. Supp. 3d 705 (N.D. Ill. 2015), *affirmed*, 840 F.3d 932 (7th Cir. 2016) ("*Midwest Fence II*").
183. *Sherbrooke Turf, Inc. v. Minnesota Department of Transportation*, 345 F.3d 964, 970 (8th Cir. 2003), *cert. denied*, 541 U.S. 1041 (2004).
184. *Coral Construction Co. v. King County*, 941 F.2d 910, 921 (9th Cir. 1991); *Engineering Contractors II*, 122 F.3d at 916.
185. *Adarand VII*, 228 F.3d at 1166; *Engineering Contractors II*, 122 F.3d at 916; *Concrete Works II*, 36 F.3d 1513, 1522-1523; *Webster v. Fulton County, Georgia*, 51 F.Supp.2d 1354, 1364 (N.D. Ga. 1999), *affirmed per curiam*, 218 F. 3d 1267 (11th Cir. 2000); *see also Wygant v. Jackson Board of Education*, 476 U.S. 267, 277-278 (1986).

“compelling governmental interest” in remediating 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 (“Plan”) because it failed to satisfy the strict scrutiny analysis applied to “race-based” government programs. The City’s “set-aside” Plan 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 nation was eligible to participate so long as it was at least 51 percent owned and controlled by minority citizens or lawfully admitted permanent residents.

The Plan was adopted following a public hearing during which no direct evidence was presented that the City had discriminated on the basis of race in 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) generalized 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 active participation in illegal discriminatory 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.¹⁸⁶

Strict scrutiny of race-based remedies is required to determine whether racial classifications are in fact motivated by notions of racial inferiority or blatant

186. 488 U.S. at 491-92.

racial politics. This highest level of judicial review smokes out illegitimate uses of race by ensuring that the legislative body is pursuing an important enough goal to warrant use of a highly suspect tool.¹⁸⁷ It also ensures that the means chosen “fit” this compelling goal so closely that there is little or no likelihood that the motive for the classification was illegitimate racial prejudice or stereotype. The Court made clear that strict scrutiny is designed to expose racial stigma; racial classifications are said to create racial hostility if they are based on notions of racial inferiority.

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. The Court stated,

In the case at hand, the City has not ascertained how many minority enterprises are present in the local construction report nor the level of their participation in City construction projects, we think it clear that the city could take affirmative steps to dismantle a system. It is beyond dispute that any public entity, state or federal, has a compelling interest in assuring that public dollars, drawn from the tax contributions of all citizens, do not serve to finance the evil of private prejudice.¹⁸⁸

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, the City 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. Local governments are 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

187. 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 decisionmaker for the use of race in that particular context.”).

188. *Croson*, 488 U.S. at 510 (citing *Wygant*, 476 U.S. at 277).

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.”¹⁸⁹

This analysis was applied only to Blacks. The Court emphasized that there was “absolutely no evidence” of discrimination 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.”¹⁹⁰

Having found that Richmond had not presented evidence in support of its compelling interest in remediating discrimination—the first prong of strict scrutiny—the Court made two observations about the narrowness of the remedy—the second prong of strict scrutiny. First, Richmond had not considered race-neutral means to increase MBE participation. Second, the 30 percent quota had no basis in evidence, and was applied regardless of whether the individual MBE had suffered discrimination.¹⁹¹ The Court noted that the City “does not even know how many MBEs in the relevant market are qualified to undertake prime or subcontracting work in public construction projects.”¹⁹²

Apparently recognizing that her opinion might be misconstrued to 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

189. *Id.*

190. *Id.*

191. *Id.* at 507-508.

192. *Id.* at 502.

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.¹⁹³

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.¹⁹⁴ 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.¹⁹⁵

Some plaintiffs have argued that this dearth of any particularized proof and means that only the most particularized proof can suffice in all cases. They leap from the Court's rejection of Richmond's reliance on only the percentage of Blacks in the City's population to a requirement that only firms that bid or have the "capacity" or "willingness" to bid on a particular contract at a particular time can be considered in determining whether discrimination against Black businesses infects the local economy.¹⁹⁶

The Court struck down Richmond's minority-owned business enterprise ("MBE") policy because the only evidence before the City Council was: (a) Richmond's general population was 50 percent Black, yet only 0.67 percent of its prime construction contracts were awarded to MBEs; (b) local contractors' associations were virtually all White; (c) the City Attorney's opinion that the policy was constitutional; and (d) general statements describing pervasive racial discrimination in the construction industry at the local, state, and national levels.¹⁹⁷

193. *Id.* at 509 (citations omitted)

194. *Id.* at 502.

195. *Id.* (citing *Ohio Contractors Ass'n v. Keip*, 713 F.2d. 167, 171 (6th Cir. 1983)).

196. *See, for example, Northern Contracting, Inc. v. State of Illinois, Illinois Department of transportation*, 473 F.3d 715, 723 (7th Cir. 2007) (*Northern Contracting III*).

197. *Croson*, 488 U.S. at 477-480.

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*.¹⁹⁸

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 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 C.F.R. Part 26 "provides for a flexible system of contracting goals that contrasts sharply with the rigid quotas invalidated in *Croson*."

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".¹⁹⁹

3. Strict Scrutiny as Applied to United States Department of Transportation Disadvantaged Business Enterprise Programs

i. Elements of DBE Programs

In *Adarand v. Peña*,²⁰⁰ the Supreme Court again overruled long settled law and extended the analysis of strict scrutiny under the Equal Protection Clause of the Fourteenth Amendment to federal enactments. To comply with *Adarand*, Congress reviewed and revised the DBE program statute²⁰¹ and implementing regulations²⁰² for federal-aid contracts in the transportation industry. The new DBE regulation set forth in 49 C.F.R. Part 26 ("Part 26") took effect on March 4, 1999.²⁰³ The DBE

198. *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").

199. *Adarand III*, 515 U.S. at 237.

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

201. See the Transportation Equity Act for the 21st Century ("TEA-21"), Pub. L. No. 105-178 (b)(1), June 22, 1998, 112 Stat. 107, 113.

202. Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs, 49 C.F.R. Part 26 (2014).

203. Although numerous regulatory pronouncements issued since that time, the 1999 rule remains in effect. The regulation for airport concessions, mandated by 49 U.S.C. 47107 (e), is set forth in 49 C.F.R. Part 23 ("Part 23") which took effect in 2012.

program statute governs the Airport's receipt of airport improvement²⁰⁴ federal funds from the Federal Aviation Administration ("FAA").

To date, every court that has considered the issue has found the 1999 regulations to be constitutional on their face.²⁰⁵ These cases provide important guidance to MSCAA about how to narrowly tailor its DBE program, as well as its initiatives for its non-FAA funded contracts.

All courts have held that Congress had strong evidence of widespread racial discrimination in the transportation industry in the revisions to the DBE program. The Ninth Circuit held that "[i]n 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." Relevant evidence before Congress included:

1. Disparities between the earnings of minority-owned firms and similarly situated non-minority owned firms;
2. Disparities in commercial loan denial rates between Black business owners compared to similarly situated non-minority business owners;
3. The large and rapid decline in minorities' participation in the construction industry when affirmative action programs were struck down or abandoned; and
4. Various types of overt and institutional discrimination by prime contractors, trade unions, business networks, suppliers, and sureties against minority contractors.²⁰⁶

Next, the regulations were facially narrowly tailored. Unlike the prior program,²⁰⁷ the new rule provides that:

1. 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.

204. The airport concession portion of the DBE program is set forth in Part 23.

205. See, for example, *Midwest Fence II*, 840 F.3d at 932; *Northern Contracting III*, 473 F.3d at 715; *Associated General Contractors of America, San Diego Chapter, Inc., v. California Department of Transportation, et. al.*, 713 F. 3d 1187, 1198 (9th Cir. 2013); *Western States*, 407 F.3d at 983, 994; *Adarand VII*, 228 F.3d at 1147; *M.K. Weeden Construction v. Montana Department of Transportation*, 2013 WL 4774517 (D. Mont.) (September 4, 2013); *Sherbrooke*, 345 F.3d 964.

206. *Western States*, 407 F.3d at 992-93.

207. The DBE program regulation in effect prior to March of 1999 was set forth in 49 C.F.R. Part 23.

2. The goal may be adjusted to reflect the availability of DBEs “but for” the effects of the DBE program and of discrimination.
3. 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.
4. The use of quotas and set-asides is limited to only those situations where there is no other remedy.
5. The goals are to be adjusted during the year to remain narrowly tailored.
6. Absent bad faith administration of the program, a recipient cannot be penalized for not meeting its goal.
7. Exemptions or waivers from program requirements are available.
8. 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.”²⁰⁸

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 that assist all small firms to achieve minority and woman participation. MSCAA must also estimate the portion of the goal it predicts will be met through race-neutral and race-conscious measures (contract goals).²⁰⁹ This requirement has been central to the holdings that the DBE regulations meet narrow tailoring.²¹⁰ Further, a recipient may terminate race-conscious contract goals if it meets its annual overall goal through race-neutral means for two consecutive years. Finally, the authorizing legislation is subject to Congressional reauthorization that will ensure periodic public debate.

In 2015, Congress reauthorized the DBE program and again concluded that the evidence before it “provided a strong basis” to continue the program.²¹¹ Relevant evidence before Congress fell into four main categories: (1) evidence of discriminatory barriers to the formation of

208. *Sherbrooke*, 345 F.3d. at 973.

209. 49 CFR § 26.45(f)(3).

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

211. Fixing America’s Surface Transportation Act (Fast Act), Pub. L. No. 114-94, H.R. § 1101 (b), December 4, 2015, 129 Stat. 1312, at 1323-1325 (23 U.S.C. 101 et. seq.) (2015).

qualified MBEs; (2) evidence of discriminatory barriers to the success of qualified MBEs; (3) evidence from local disparity studies; and (4) evidence from the results of removing affirmative action programs.²¹²

More recently, in the 2020 “Investing in a New Vision for the Environment and Surface Transportation Act” or the “Invest in America Act”²¹³, Congress received and reviewed testimony and documentation of race and gender discrimination from numerous sources, including congressional hearings and other investigative activities, disparity studies, scientific reports, reports issued by public and private agencies at every level of government, news reports, academic publications, reports of discrimination by organizations and individuals, and discrimination lawsuits. This evidence demonstrates that race- and gender-neutral efforts alone continue to be insufficient to address the nationwide problem. Congress found that despite the real improvements caused by the DBE program, minority- and woman-owned businesses across the country continue to confront serious and significant race- and gender-based obstacles to success on USDOT funded transportation contracts.

ii. Narrowly Tailoring MSCAA’s DBE Program

Airports that receive FAA grants for airport planning or development and award prime contracts for projects that equal or exceed an accumulative amount of \$250,000.00 in a fiscal year must have a DBE program and must meet related requirements as an expressed condition of receiving these funds. Therefore, MSCAA has established a DBE program plan which it administers in good faith in conformance with 49 C.F.R. Part 26.

MSCAA utilizes a two-step goal-setting process to establish its overall triennial DBE goal for FAA funded contracts. MSCAA’s overall triennial goal is based upon the relative availability of DBEs and reflect the level of DBE participation that would be expected absent the effects of discrimination.²¹⁴

Under Step 1, MSCAA determines the base figure for the relative availability of DBEs, and one approved method is to use data from a dispar-

212. *Adarand VII*, 228 F.3d at 1167-1175. *See also Sherbrooke*, 345 F.3d at 969-970; *Western States*, 407 F.3d at 720-721, and “Appendix – The Compelling Interest for Affirmative Action in Federal Procurement: A Preliminary Survey,” 61 Fed. Reg. 26050 (May 23, 1996) (citing approximately thirty congressional hearings since 1980 concerning MBEs).

213. *See text of House of Representatives Bill 2*, 116th Congress, 2d Session. At the time of this Study, the United States Senate had not yet considered the legislation.

214. 49 C.F.R. § 26.45(b).

ity study.²¹⁵ Under Step 2, the Airport Authority examines all evidence available in its jurisdiction to determine whether to adjust the base figure. MSCAA considers the current capacity of DBEs as measured by the volume of work DBEs have performed in recent years.²¹⁶

In addition to the overall goal, MSCAA sets narrowly tailored goals on specific FAA funded contracts where warranted. MSCAA sets contract goals based upon the availability of DBEs to perform anticipated work scopes—including the work estimated to be performed by the prime contractor—of the individual contract.²¹⁷

Programs based upon studies similar to the methodology employed for this Report have been deemed a rich and relevant source of data and have been upheld repeatedly. This includes 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. The Illinois Department of Transportation’s (IDOT’s) DBE program was upheld based on this approach combined with other economy-wide and anecdotal evidence. The USDOT’s institutional guidance for Part 26 refers approvingly to this case.²¹⁸ IDOT’s plan was based upon sufficient proof of discrimination such that race-neutral measures alone would be inadequate to assure that DBEs operate on a “level playing field” for government contracts.

The stark disparity in DBE participation rates on goals and non-goals contracts, when combined with the statistical and anecdotal evidence of discrimination in the relevant marketplaces, indicates that IDOT’s 2005 DBE goal represents a “plausible lower-bound estimate” of DBE participation in the absence of discrimination... Plaintiff presented no persuasive evidence contravening the conclusions of IDOT’s studies, or explaining the disparate usage of DBEs on goals and non-goals contracts... IDOT’s proffered evidence of discrimination against DBEs was not limited to alleged discrimination by prime contractors in the award of subcontracts. IDOT also presented evidence that discrimination in the bonding, insurance, and financing markets erected

215. 49 C.F.R. § 26.45(c)(3).

216. 49 C.F.R. § 26.45(d)(1)(i).

217. 49 C.F.R. § 26.51 (e)(2).

218. *Tips for Goal-Setting in the Disadvantaged Business Enterprise Program*, United States Department of Transportation (2015), https://www.transportation.gov/sites/dot.gov/files/docs/Tips_for_Goal-Setting_in_DBE_Program_20141106.pdf.

barriers to DBE formation and prosperity. Such discrimination inhibits the ability of DBEs to bid on prime contracts, thus allowing the discrimination to indirectly seep into the award of prime contracts, which are otherwise awarded on a race- and gender-neutral basis. This indirect discrimination is sufficient to establish a compelling governmental interest in a DBE program... Having established the existence of such discrimination, a governmental entity has a compelling interest in assuring that public dollars, drawn from the tax contributions of all citizens, do not serve to finance the evils of private prejudice.²¹⁹

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.²²⁰

More recently, the Seventh Circuit affirmed the district court and upheld the Illinois Tollway's DBE program for non-federal-aid contracts based upon a Colette Holt & Associates disparity study utilizing this methodology. Plaintiff's main objection to the defendant's evidence was that it failed to account for "capacity" when measuring DBE availability and underutilization. As is well established, Midwest would have to come forward with "credible, particularized evidence" of its own, such as a neutral explanation for the disparity between DBE utilization and availability showing that the government's data is flawed, demonstrating that the observed disparities are statistically insignificant or presenting contrasting statistical data. [citation omitted]. Plaintiff "fail[ed] to provide any independent statistical analysis or make this

219. *Northern Contracting, Inc. v. Illinois Department of Transportation*, 2005 U.S. Dist. LEXIS 19868 at *80, *81, *82 (Sept. 8, 2005) ("Northern Contracting II").

220. *Sherbrooke*, 3345 F.3d at 973.

showing here.”²²¹ Midwest offered only mere conjecture about how the defendant’s study’s supposed failure to account for capacity may or may not have impacted other evidence demonstrating actual bias.

As recently as 2017, another district court found the DBE program and its implementing regulations to be constitutional.²²² This criminal case originated from alleged fraud on the program. The court rejected defendant’s challenge to the USDOT’s authority to promulgate the federal regulations and determined that the regulatory legislative history and executive rulemaking were made under the broad grant of rights authorized by Congressional statutes.²²³

iii. Narrowly Tailoring MSCAA’s Airport Concessions DBE Program

The Airport Concession Disadvantaged Enterprise (“ACDBE”) Program²²⁴ applies to primary/commercial service airports that receive Airport Improvement Program funding and that have concession revenues of \$200,000.00 or more for either car rental or non-car rental concessions. 49 C.F.R. Part 23 incorporates Part 26’s provisions by reference. Part 23 differs from Part 26 in the small business size standards to establish the firm as a small business concern.²²⁵

Under the ACDBE regulations, MSCAA must establish two overall ACDBE goals: one for car rentals and another for concessions other than car rentals. Similar to the Part 26 program, an airport sponsor follows the two-step goal setting procedures contained in § 23.51. As with § 26.45, after determining the total gross receipts for the concession activity, the first step is to establish the relative availability of ACDBEs in the market area, that is, the step one “base figure”. The second step is to examine all relevant evidence reasonably available in the sponsor’s jurisdiction to determine if an adjustment to the step one “base figure” is necessary so that the goal reflects as accurately as possible the ACDBE participation the sponsor would expect in the absence of

221. See *Midwest Fence II*, 840 F.3d at 932.

222. *United States v. Taylor*, 232 F. Supp. 3d 741 (W.D. Penn. 2017).

223. *Id.* at 754.

224. 49 C.F.R. Part 23.

225. The ACDBE’s gross receipts, averaged over the firm’s previous three fiscal years, cannot exceed \$56.42M, with the exceptions of banks (\$1B in assets); car rental companies (\$75.23M average annual gross receipts over the firm’s three previous fiscal years, as adjusted by the USDOT for inflation every two years from April 3, 2009); pay telephones (1,500 employees); and automobile dealers (350 employees). The USDOT adjusts the numbers for ACDBEs that are not banks, pay telephones or automobile dealers using the U.S. Department of Commerce price deflators for purchases by state and local governments as the basis for this adjustment. See 49 C.F.R. § 23.33.

discrimination. Evidence may include, but is not limited to, past participation by ACDBEs, a disparity study, or evidence from related fields that affect ACDBE opportunities to form, grow, and compete (such as statistical disparities in ability to get required financing, bonding, and insurance; or data on employment, self-employment, education, training and union apprenticeship).

There is little or no case law specifically related to the constitutionality of the USDOT ACDBE program. The FAA and its recipients follow the strictures and standards for the DBE program, and the concessions regulations explicitly incorporate Part 26.²²⁶

4. Strict Scrutiny as Applied to Memphis-Shelby County Airport Authority's Business Diversity Development Program

i. Establishing a "Strong Basis in Evidence" for MSCAA's Business Diversity Development Program

The case law on the DBE program can guide MSCAA's program for non-FAA locally funded contracts. Whether the program is called an M/WBE program or a DBE program or any other moniker, the strict scrutiny test applies. As discussed, 49 C.F.R. Part 26 has been upheld by every court, and local programs for Minority- and Woman-Owned Business Enterprises ("M/WBEs") will be judged against this legal framework.²²⁷ We note that programs for veterans, persons with disabilities, preferences based on geographic location or truly race- and gender-neutral small business efforts are not subject to strict scrutiny and no evidence comparable to that in a disparity study is needed to enact such initiatives.

Discrimination may 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.²²⁸ 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/W/DBEs.²²⁹

226. See § 23.51(a)(2) that mirrors § 25.45 (recipient is to determine the extent, if any, to which the firms in its market area have suffered discrimination or its effects in connection with concession opportunities or related business opportunities).

227. *Midwest Fence II*, 840 F.3d. at 953.

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

229. *Id.*

Croson’s admonition that “mere societal” discrimination is not enough to meet strict scrutiny is addressed 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.”²³⁰

MSCAA need not prove that it is itself guilty of discrimination to meet its burden. In *Croson*, the court stated that a governmental entity “has a compelling interest in assuring that public dollars, drawn from the tax contributions of all citizens, do not serve to finance the evil of private prejudice.”²³¹ 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.”²³² 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.

The following are the evidentiary elements courts have looked to in examining the basis for and determining the constitutional validity of race- and gender-conscious local programs and the steps in performing a disparity study necessary to meet those elements.

a. Define MSCAA’s Market Areas

The first step is to determine the market area in which MSCAA operates. *Croson* states that a state or local government may only remedy discrimination within its own contracting market area. The City of Richmond was specifically faulted for including minority contractors from across the country in its program, based on national data considered by Congress.²³³ MSCAA must therefore empirically establish the geographic and product dimensions of its contracting

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

231. *Croson*, 488 U.S. at 492

232. *Id.* at 977.

233. *Croson*, 488 U.S. at 508.

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.²³⁴ This Study employs long established economic principles to empirically establish the Authority's geographic and product market area to ensure that its programs satisfy strict scrutiny.

b. Examine Disparities between Utilization of M/W/DBEs and M/W/DBE Availability in MSCAA Contracting

Next, the study must estimate the availability of minorities and women to participate in the Airport Authority's contracts as prime contractors and associated subcontractors compared to the Airport Authority's utilization of such firms. The primary inquiry is whether there are statistically significant disparities between the availability of M/W/DBEs and their utilization.

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.²³⁵

This is known as the "disparity ratio" or "disparity index". A disparity ratio measures the participation of a group in the government's contracting opportunities by dividing that group's utilization by the availability of that group and multiplying that result by 100. Courts have looked to disparity indices in determining whether strict scrutiny is satisfied.²³⁶ 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.²³⁷ Where

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

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

236. *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 Corporation v. Hillsborough County*, 908 F.2d 908, 916 (11th Cir. 1990), *cert. denied*, 498 U.S. 983 (1990).

possible, statistical techniques are applied to examine whether any disparities are significant. In addition to creating the disparity ratio, correct measures of availability are necessary to determine whether discriminatory barriers depress the formation of firms by minorities and women, and the success of such firms in doing business in both the private and public sectors, known as an “economy-wide” analysis.²³⁸

To determine disparity ratios once utilization has been established, the next step is to calculate the availability of minority- and woman-owned firms in the government’s market area. Based on the product and geographic utilization data, the study should calculate weighted M/W/DBE availability estimates of ready, willing and able firms in the MSCAA’s market. U.S. DOT’s *Tips for Goal Setting* instruct that the determination of availability should go beyond firms certified as DBEs to include non-certified firms owned by minorities or women.²³⁹

The Airport Authority 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.²⁴⁰

Nor must MSCAA 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.²⁴¹

237. Uniform Guidelines on Employee Selection Procedures (1978), 29 C.F.R. § 1607.4(D) (“A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact, while a greater than four-fifths rate will generally not be regarded by Federal enforcement agencies as evidence of adverse impact.”); see *Engineering Contractors II*, 122 F.3d at 914.

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

239. *Tips for Goal-Setting in the Disadvantaged Business Enterprise Program*, United States Department of Transportation (2015), https://www.transportation.gov/sites/dot.gov/files/docs/Tips_for_Goal-Setting_in_DBE_Program_20141106.pdf; *Northern Contracting III*, 473 F.3d at 743 (using more than the DBE certified list will “arrive at more accurate numbers than would be possible through use of just the list”).

240. *Concrete Works IV*, 321 F. 3d at 971.

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

Denver’s only burden was to introduce evidence which raised the inference of discriminatory exclusion in the local construction industry and link its spending to that discrimination.... Denver was under no burden to identify any specific practice or policy that resulted in discrimination. Neither was Denver required to demonstrate that the purpose of any such practice or policy was to disadvantage women or minorities. To impose such a burden on a municipality would be tantamount to requiring proof of discrimination and would eviscerate any reliance the municipality could place on statistical studies and anecdotal evidence.²⁴²

Similarly, statistical evidence by its nature cannot identify the individuals responsible for the discrimination; there is no need to do so to meet strict scrutiny, as opposed to an individual or class action lawsuit.²⁴³

c. Analyze Economy-Wide Evidence of Race- and Gender-Based Disparities

The courts have held that analysis of disparities in the rates at which M/W/DBEs in the government’s markets form businesses compared to similar non-M/W/DBEs, 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.²⁴⁴ These types of analyses contributed to the successful defense of Chicago’s construction program.²⁴⁵ As similarly explained by the Tenth Circuit, this type of evidence

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

242. *Id.* at 971.

243. *Id.* at 973.

244. *See Western States*, 407 F.3d 983, 993; *Sherbrooke*, 345 F.3d. 964, 970; *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*”).

245. *Builders Association of Greater Chicago v. City of Chicago*, 238 F.Supp.2d 725, 738-739 (N.D. Ill. 2003).

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 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.²⁴⁶

Business discrimination studies and lending formation 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. As noted in *Adarand VII*, evidence that private discrimination results in barriers to business formation is relevant because it demonstrates that M/WBEs are precluded from competing for public construction contracts. Evidence of barriers to fair competition is also relevant because it demonstrates that M/WBEs are precluded from competing for public contracts.²⁴⁷ 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 can-

246. *Adarand VII*, 228 F.3d 1147, 1168-69 (10th Cir. 2000), *cert. granted*, 532 U.S. 941, *then dismissed as improvidently granted*, 534 U.S. 103 (2001).

247. *Id.*

not control for subjective descriptions such as “quality of education,” “culture” and “religion.”²⁴⁸

For example, in upholding the DBE Program for federal-aid transportation contracts, 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.²⁴⁹ 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.²⁵⁰

d. Evaluate Anecdotal Evidence of Race- and Gender-Based Barriers

A study should further 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.”²⁵¹ Testimony about discrimination practiced

248. *Concrete Works IV*, 321 F.3d 950, 980.

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

250. *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.”).

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

by prime contractors, bonding companies, suppliers, and lenders has been found relevant regarding barriers both to minority firms' business formation and to their success on governmental projects.²⁵² 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."²⁵³ "[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."²⁵⁴

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."²⁵⁵ 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."²⁵⁶

ii. Narrowly Tailoring MSCAA's Business Diversity Development Program

Even if MSCAA has a strong basis in evidence to believe that race-based measures are needed to remedy identified discrimination, the program must still be narrowly tailored to that evidence. As discussed above, programs that closely mirror those of the U.S. Department of Transportation's Disadvantaged Business Enterprise program²⁵⁷ have been

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

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

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

255. *Id.* at 249.

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

upheld using that framework.²⁵⁸ The courts have repeatedly examined the following factors in determining whether race-based remedies are narrowly tailored to achieve their purpose:

1. The necessity of relief;²⁵⁹
2. The efficacy of race-neutral remedies at overcoming identified discrimination;²⁶⁰
3. The relationship of numerical benchmarks for government spending to the availability of minority- and woman-owned firms and to subcontracting goal setting procedures;²⁶¹
4. The flexibility of the program requirements, including the provision for good faith efforts to meet goals and contract specific goal setting procedures;²⁶²
5. The relationship of numerical goals to the relevant market;²⁶³
6. The impact of the relief on the rights of third parties;²⁶⁴ and
7. The over-inclusiveness of the racial classifications.²⁶⁵

a. Consider Race- and Gender-Neutral Remedies

Race- and gender-neutral approaches are necessary components of a defensible and effective M/W/DBE program²⁶⁶ and the failure to seriously consider such remedies has been fatal to several programs.²⁶⁷ Difficulty in accessing procurement opportunities, restrictive bid specifications, excessive experience requirements,

257. 49 C.F.R. Part 26.

258. See, e.g., *Midwest Fence II*, 840 F.3d at 953 (upholding the Illinois Tollway's program for state funded contracts modelled after Part 26 and based on CHA's expert testimony).

259. *Croson* at 507; *Adarand III* at 237-38.

260. *Paradise* at 171.

261. *Id.*

262. *Id.*

263. See *AGC, SDC v. Caltrans*, 713 F.3d at 1198-1199; *Western States*, 407 F. 3d 983, 998; *Adarand VII*, 228 F.3d at 1177; *Paradise*, 480 U.S. at 171.

264. *Croson*, 488 U.S. at 506.

265. *Croson*, at 506.

266. *Croson*, 488 U.S. at 507 (Richmond considered no alternatives to race-based quota); *Associated General Contractors of Ohio v. Drabik*, 214 F.3d at 738 (6th Cir. 2000) ("*Drabik II*"); *Contractors Association of Eastern Pennsylvania v. City of Philadelphia*, 91 F.3d 586, 609 (3rd Cir. 1996) ("*Philadelphia III*") (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).

267. 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.

and overly burdensome insurance and/or bonding requirements for example, might be addressed by MSCAA 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.²⁶⁸ Further, governments have a duty to ferret out and punish discrimination against minorities and women by their contractors, staff, lenders, bonding companies or others.²⁶⁹

The requirement that the agency must meet the maximum feasible portion of the goal through race-neutral measures, as well as estimate that portion of the goal that it predicts will be met through such measures, has been central to the holdings that the DBE program regulations meet narrow tailoring.²⁷⁰

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.²⁷¹ 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.”²⁷²

b. Set Targeted M/W/DBE Goals

Numerical goals or benchmarks for M/W/DBE participation must be substantially related to their availability in the relevant market.²⁷³ For example, the DBE program 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.²⁷⁴ “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 mar-

268. See 49 CFR § 26.51.0.

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

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

271. *Grutter*, 529 U.S. at 339.

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

273. *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 *Baltimore I*, 83 F.Supp.2d 613, 621.

274. 49 C.F.R. § 26.45 (b).

kets. This stands in stark contrast to the program struck down in *Croson*.²⁷⁵ However, sheer speculation cannot form the basis for an enforceable measure.²⁷⁶

It is settled case law that goals for a particular solicitation should reflect the particulars of the contract, not reiterate annual aggregate targets.²⁷⁷ Contract goals should be based upon availability of M/W/DBEs to perform the anticipated scopes of the contract, location, progress towards meeting annual goals, and other factors.²⁷⁸ 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 unreasonable contract goals. While this is more labor intensive than defaulting to the annual, overall goals, no court has held that an agency may avoid meeting narrow tailoring because to do so would be more burdensome.

c. Ensure Flexibility of Goals and Requirements

Remedies should not operate as fixed quotas.²⁷⁹ A M/W/DBE program must provide for contract awards to firms who fail to meet the contract goals but make good faith efforts to do so.²⁸⁰ In *Croson*, the Court refers approvingly to the contract-by-contract waivers used in the USDOT’s DBE program.²⁸¹ This feature has been central to the holding that the DBE program meets the narrow tailoring requirement.²⁸²

275. *Id.*

276. *BAGC v. Chicago*, 298 F. Supp.2d 725, 740 (City’s MBE and WBE goals were “formulistic” percentages not related to the availability of firms).

277. *See Sherbrooke*, 345 F.3d at 972 (recipients should establish “realistic goals for DBE participation in the relevant contracting markets”).

278. 49 C.F.R. § 26.51(e)(2) (“The goal for a specific contract may be higher or lower than that percentage level of the overall goal, depending on such factors as the type of work involved, the location of the work, and the availability of DBEs for the work of the particular contract.”).

279. *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”).

280. *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.”).

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

282. *See, e.g., Sherbrooke*, 345 F.3d. at 972; *Webster*, 51 F. Supp. 2d at 1380.

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

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

The groups to include must be based upon the evidence.²⁸³ 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".²⁸⁴ In striking down Cook County, Illinois' construction program, the Seventh Circuit 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."²⁸⁵ 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.²⁸⁶ Therefore, remedies should be limited to those firms owned by the relevant minority groups as established by the evidence that have suffered actual harm in the market area.²⁸⁷

Next, the firm's owner(s) must be disadvantaged. The DBE Program's 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 it is narrowly tailored.²⁸⁸ "[W]ealthy minority owners and wealthy

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

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

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

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

287. *Rowe*, 615 F.3d at 233, 254 ("[T]he statute contemplates participation goals only for those groups shown to have suffered discrimination. As such, North Carolina's statute differs from measures that have failed narrow tailoring for over-inclusiveness.").

288. *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 of Connecticut 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).

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.”²⁸⁹ Further, anyone must be able to challenge the disadvantaged status of any firm.²⁹⁰

e. Evaluate the Burden on Third Parties

Failure to make “neutral” changes to contracting and procurement policies and procedures that disadvantage M/W/DBEs and other small businesses may result in a finding that the program unduly burdens non-M/W/DBEs.²⁹¹ However, “innocent” parties can be made to share some of the burden of the remedy for eradicating racial discrimination.²⁹² The burden of compliance need not be placed only upon those firms directly responsible for the discrimination. 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.²⁹³ “Implementation of the race-conscious contracting goals for which [the federal authorizing legislation] provides will inevitably result in bids submitted by non-DBE firms being rejected in favor of higher bids from DBEs. Although the result places a very real burden on non-DBE firms, this fact alone does not invalidate [the statute]. If it did, all affirmative action programs would be unconstitutional because of the burden upon non-minorities.”²⁹⁴

Narrow tailoring does permit certified firms acting as prime contractors to count their self-performance towards meeting contract goals, if the study finds discriminatory barriers to prime contract opportunities and there is no requirement that a program be limited only to the subcontracting portions of contracts. The DBE pro-

289. *Sherbrooke*, 345 F.3d. at 973.

290. 49 C.F.R. §26.87.

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

292. *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 is [sic] has suffered anything more than minimal revenue losses due to the program.”).

293. *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).

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

gram regulations provide this remedy for discrimination against DBEs seeking prime work,²⁹⁵ and the regulations do not limit the application of the program to only subcontracts.²⁹⁶ The trial court in upholding the Illinois DOT's DBE program explicitly recognized that barriers to subcontracting opportunities also affect the ability of DBEs 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.²⁹⁷

f. Examine the Duration and Review of the Program

Race-based programs must have durational limits. A race-based remedy must “not last longer than the discriminatory effects it is designed to eliminate.”²⁹⁸ The unlimited duration and lack of review were factors in the court's holding that the City of Chicago's M/WBE construction program was no longer narrowly tailored; Chicago's program was based on 14-year-old information, which while

295. 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.”).

296. 49 C.F.R. § 26.45(a)(1).

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

298. *Adarand III*, 515 U.S. at 238.

it supported the program adopted in 1990, no longer was sufficient standing alone to justify the City's efforts in 2004.²⁹⁹ How old is too old is not definitively answered,³⁰⁰ but governments would be wise to analyze data at least once every five or six years.

In contrast, the USDOT DBE program's periodic review by Congress has been held to provide adequate durational limits.³⁰¹ 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 five years."³⁰²

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

300. *See, e.g., 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."); *Brunet v. City of Columbus*, 1 F.3d 390, 409 (6th Cir. 1993), *cert. denied sub nom Brunet v. Tucker*, 510 U.S. 1164 (1994) (fourteen-year-old evidence of discrimination "too remote to support a compelling governmental interest.").

301. *See Western States*, 407 F.3d at 995; *Adarand VII*, 228 F.3d at 1155.

302. *Rowe*, 615 F.3d at 253.

APPENDIX F:

GLOSSARY

ACDBE: Airport Concession Disadvantaged Business Enterprise, as defined in 49 C.F.R. Part 23.

ACS: The American Community Survey. The Census Bureau's ACS is an ongoing survey covering the same type of information collected in the Decennial Census.

Anecdotal or qualitative evidence: Qualitative data regarding business owners' accounts of experiences with disparate treatment and other barriers to business success.

Asian or Asian/Pacific Islander: Refers to an individual having origins in the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islanders (except Native Hawaiians).

Availability: The percentage of a given population of businesses owned by one or more groups of interest as a percentage of all business owners.

Baseline Business Universe: The underlying population of business establishments that is used in an availability analysis. It is used as the denominator in a M/W/DBE availability measure.

Black: Or "African American" refers to an individual having origins in any of the Black racial groups of Africa.

Constrained Product Market: The subset of the Final Contract Data File which is limited to the City's product market and geographic market.

DBE: Disadvantaged Business Enterprise, as defined in 49 C.F.R. Part 26.

Dependent variable: In a regression analysis, a variable whose value is postulated to be influenced by one or more other "independent" or "exogenous" or "explanatory" variables. For example, in business owner earnings regressions, business owner earnings is the dependent variable, and other variables, such as industry, geographic location, or age, are the explanatory variables. See also "Independent variable," "Exogenous variable."

Disaggregation, disaggregated: Refers to the practice of splitting larger groups into smaller.

Disparity ratio (or Disparity Index): A measure derived from dividing utilization by availability and multiplying the result by 100. A disparity ratio of less than 100 indicates that utilization is less than availability. A disparity ratio of 80 or less can be taken as evidence of disparate impact. See also Availability, Substantive significance, Utilization.

Distribution: A set of numbers and their frequency of occurrence collected from measurements over a statistical population.

Econometrics, econometrically: Econometrics is the field of economics that concerns itself with the application of statistical inference to the empirical measurement of relationships postulated by economic theory. See also “Regression.”

Endogenous variable: A variable that is correlated with the residual in a regression analysis or equation. Endogenous variables should not be used in statistical tests for the presence of disparities. See also “Exogenous variable.”

Exogenous variable: A variable that is uncorrelated with the residual in a regression analysis or equation. Exogenous variables are appropriate for use in statistical tests for the presence of disparities. See also “Endogenous variable,” “Independent variable,” “Dependent variable.”

Final Contract Data File: The data base of the agency’s contracts which was used to estimate utilization and availability.

Hispanic: Refers to an individual of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

Independent variable: In a regression analysis, one or more variables that are postulated to influence or explain the value of another, “dependent” variable. For example, in business owner earnings regressions, business owner earnings is the dependent variable, and other variables, such as industry, geographic location, or age, are the independent or explanatory variables. See also “Dependent variable,” “Exogenous variable.”

Geographic Market: The counties where the agency conducts at least 75 percent of its business.

Intermediate judicial scrutiny: The middle level of Equal Protection Clause scrutiny applied by courts to, among other types of activities, programs based on gender, or government decisions that take gender into account.

Master M/W/D/ACDBE Directory: The directory compiled by CHA of firms owned by MBEs, WBEs, DBEs and ACDBEs.

MBE: Minority-Owned Business Enterprise. A business establishment that is 51 percent or more owned and controlled by racial or ethnic minorities (i.e., Blacks, Hispanics, Asians/Pacific Islanders, or Native Americans).

Mean: A term of art in statistics, synonymous in this context with the arithmetic average. For example, the mean value of the series 1, 1, 2, 2, 2, 4, 5 is 2.43. This is derived by calculating the sum of all the values in the series (i.e., 17) and dividing that sum by the number of elements in the series (i.e., 7).

Median: A term of art in statistics, meaning the middle value of a series of numbers. For example, the median value of the series 1, 1, 2, 2, 2, 4, 5 is 2.

Microdata or micro-level data: Quantitative data rendered at the level of the individual person or business, as opposed to data rendered for groups or aggregates of individuals or businesses. For example, Dun and Bradstreet provides micro-level data on business establishments. The Census Bureau's Survey of Business Owners, provides grouped or aggregated data on businesses.

MSA: Metropolitan Statistical Area. The area, as defined by the federal Office of Management and Budget, contains at least one urbanized area that has a total population of 50,000 or more, plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting ties.

M/W/DBE: Collectively, Minority-Owned Business Enterprise, Woman-Owned Business Enterprise, and Disadvantaged Business Enterprise.

Multiple regression analysis: A statistical technique that provides an analysis of how one variable (e.g., wages) is impacted changes in other variables (e.g., race). For further description, see Appendix A.

NAICS: North American Industry Classification System. The standard system for classifying industry-based data in the U.S. Superseded the Standard Industrial Classification (SIC) System in 1997.

Native American: Refers to an individual having origins in any of the original peoples of North America, including Native Hawaiians.

Nonminority: Firms that are not M/W/DBEs, i.e., not owned by African Americans, Hispanics, Asians/Pacific Islander, Native Americans, or White females.

Probit analysis: A statistical technique similar to multiple regression analysis with two primary differences. First, the variable being analyzed has only two values: yes or no (e.g., a business is formed or a business is not formed). This is in contrast to a variable such as wages which could have a wide variety of values. Second, the interpretation of the impact of a change in another variable (e.g., race) on the variable that has a yes/no value is to see how the change impacts the probability of a yes value. For further description, see Appendix B.

Product Market: The set of NAICS codes describing the industries where the City does business. The product market might be constrained or unconstrained.

PUMS: Public Use Microdata Sample from and the American Community Survey.

P-value: A standard measure used to represent the level of statistical significance. It states the numerical probability that the stated relationship is due to chance alone. For example, a p-value of 0.05 or 5 percent indicates that the chance a given statistical difference is due purely to chance is 1-in-20. See also “Statistical Significance.”

Rational basis judicial scrutiny: The most minimal level of Equal Protection Clause scrutiny applied by courts to, among other types of activities, programs based on firm size or location or the firm owner’s disability or veteran status, or government decisions that take firm size or location, disability, or veteran status into account.

Regression, multiple regression, multivariate regression: A type of statistical analysis which examines the correlation between two variables (“regression”) or three or more variables (“multiple regression” or “multivariate regression”) in a mathematical model by determining the line of best fit through a series of data points. Econometric research typically employs regression analysis. See also “Econometrics.”

SBA: United States Small Business Administration

SBA Size Standards: The size limits used by SBA, contained at 13 C.F.R. 121. Industry specific limits are based on either gross revenues or the number of employees.

SBE: Small Business Enterprise

SBO: The Census Bureau’s Survey of Business Owners statistical data series that gathers statistical information on the nation’s minority-owned and women-owned business enterprises.

Set-aside, set-asides: A contracting practice where certain contracts or classes of contracts are reserved for competitive bidding exclusively among a given subset of contractors, for example minority-owned and women-owned contractors.

Statistical significance: A statistical outcome or result that 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. See also “p-value.”

Stratified: In the present context, this refers to a statistical practice where random samples are drawn within different categories or “strata” such as time period, industry sector, or DBE status.

Strict judicial scrutiny: The highest level of Equal Protection Clause scrutiny applied by courts to, among other types of activities, programs based on race or ethnicity, or government decisions that take race or ethnicity into account.

Substantive significance: An indication of how large or small a given disparity is. Under the EEOC’s “four-fifths” rule, a disparity ratio is substantively significant if it is 0.8 or less on a scale of 0 to 1 or 80 or less on a scale of 1 to 100.

t-test, t-statistic, t-distribution: Often employed in disparity studies to determine the statistical significance of a particular disparity statistic. A t-test is a statistical hypothesis test based on a test statistic whose sampling distribution is a t-distribution. Various t-tests, strictly speaking, are aimed at testing hypotheses about populations with normal probability distributions. However, statistical research has shown that t-tests often provide quite adequate results for non-normally distributed populations as well.

Two-tailed (or two-sided) statistical test: A “two-tailed” test means that one is testing the hypothesis that two values, say u (utilization) and a (availability), are equal against the alternate hypothesis that u is not equal to a. In contrast, a one-sided test means that you are testing the hypothesis that u and a are equal against the alternate hypothesis u is not equal to a in only one direction. That is, that it is either larger than a or smaller than a.

Unconstrained Product Market: The set of industries that capture at least 75 percent of the City’s payments to firms.

Utilization: The percentage of a given amount of contracting and/or procurement dollars that is awarded or paid to businesses owned by one or more groups of interest as a percentage of all dollars spent.

WBE: Woman-Owned Business Enterprise.

APPENDIX G:

UNWEIGHTED AND WEIGHTED AVAILABILITY

Central to the analysis under strict constitutional scrutiny of an agency's contracting activity is understanding what firms could have received contracts. Availability has two components: unweighted availability and weighted availability. Below we define these two terms; why we make the distinction; and how to convert unweighted availability into weighted availability.

1. Defining Unweighted and Weighted Availability

Unweighted availability measures a group's share of all firms that could receive a contract or subcontract. If 100 firms could receive a contract and 15 of these firms are minority-owned, then MBE unweighted availability is 15 percent (15/100). *Weighted availability* converts the unweighted availability through the use of a weighting factor: the share of total agency spending in a particular NAICS code. If total agency spending is \$1,000,000 and NAICS Code AAAAAA captures \$100,000 of the total spending, then the weighting factor for NAICS code AAAAAA is 10 percent (\$100,000/\$1,000,000).

2. Why Weight the Unweighted Availability

It is important to understand *why* weighted availability should be calculated. A disparity study examines the overall contracting activity of an agency by looking at the firms that *received* contracts and the firms that *could have received* contracts. A proper analysis does not allow activity in a NAICS code that is not important an agency's overall spending behavior to have a disproportionate impact on the analysis. In other words, the availability of a certain group in a specific NAICS code in which the agency spends few of its dollars should have less importance to the analysis than the availability of a certain group in another NAICS code where the agency spends a large share of its dollars.

To account for these differences, the availability in each NAICS code is weighted by the agency's spending in the code. The calculation of the weighted availability compares the firms that received contracts (utilization) and the firms that could receive contracts (availability). Utilization is a group's share of total spending by an agency; this metric is measure in dollars, *i.e.*,

MBEs received 8 percent of all dollars spent by the agency. Since utilization is measured in dollars, availability must be measures in dollars to permit an “apples-to-oranges” comparison.

3. How to Calculate the Weighted Availability

Three steps are involved in converting unweighted availability into weighted availability:

- Determine the unweighted availability
- Determine the weights for each NAICS code
- Apply the weights to the unweighted availability to calculate weighted availability

Let’s walk through a hypothetical calculation.

Table A contains data on unweighted availability measured by the number of firms:

TABLE A

NAICS	Black	Hispanic	Asian	Native American	White Women	Non-M/W/DBE	Total
AAAAAA	10	20	20	5	15	400	470
BBBBBB	20	15	15	4	16	410	480
CCCCCC	10	10	18	3	17	420	478
TOTAL	40	45	53	12	48	1230	1428

Unweighted availability measured as the share of firms requires us to divide the number of firms in each group by the total number of firms (the last column in Table A). For example, the Black share of total firms in NAICS code AAA is 2.1% (10/470). Table B presents the unweighted availability measure as a group’s share of all firms.

TABLE B

NAICS	Black	Hispanic	Asian	Native American	White Women	Non-M/W/DBE	Total
AAAAAA	2.1%	4.3%	4.3%	1.1%	3.2%	85.1%	100.0%

NAICS	Black	Hispanic	Asian	Native American	White Women	Non-M/W/DBE	Total
BBBBBB	4.2%	3.1%	3.1%	0.8%	3.3%	85.4%	100.0%
CCCCC	2.1%	2.1%	3.8%	0.6%	3.6%	87.9%	100.0%
TOTAL	2.8%	3.2%	3.7%	0.8%	3.4%	86.1%	100.0%

Table C presents data on the agency's spending in each NAICS code:

TABLE C

NAICS	Total Dollars	Share
AAAAAA	\$1,000.00	22.2%
BBBBBB	\$1,500.00	33.3%
CCCCC	\$2,000.00	44.4%
TOTAL	\$4,500.00	100.0%

Each NAICS code's share of total agency spending (the last column in Table C) is the weight from each NAICS code that will be used in calculating the weighted availability. To calculate the overall weighted availability for each group, we first derive the every NAICS code component of a group's overall weighted availability. This is done by multiplying the NAICS code weight by the particular group's unweighted availability in that NAICS code. For instance, to determine NAICS code AAAAAA's component of the overall Black weighted availability, we would multiply 22.2 percent (the NAICS code weight) by 2.1 percent (the Black unweighted availability in NAICS code AAAAAA). The resulting number is 0.005 and this number is found in Table D under the cell which presents NAICS code AAAAAA's share of the Black weighted availability. The procedure is repeated for each group in each NAICS code. The calculation is completed by adding up each NAICS component for a particular group to cal-

culate that group's overall weighted availability. Table D presents this information:

TABLE D

NAICS	Black	Hispanic	Asian	Native American	White Women	Non-M/W/DBE
AAAAAA	0.005	0.009	0.009	0.002	0.007	0.189
BBBBBB	0.014	0.010	0.010	0.003	0.011	0.285
CCCCCC	0.009	0.009	0.017	0.003	0.016	0.391
TOTAL	0.028	0.029	0.037	0.008	0.034	0.864

To determine the overall *weighted availability* data presented in this report for MSCAA, the last row is converted into a percentage (*e.g.*, for the Black weighted availability: $0.028 * 100 = 2.8\%$). Table E presents these results.

TABLE E

NAICS	Black	Hispanic	Asian	Native American	White Women	Non-M/W/DBE	Total
TOTAL	2.8%	2.9%	3.7%	0.8%	3.4%	86.4%	100.0%

APPENDIX H:

ANALYSIS OF MSCAA's CONTRACT DATA UTILIZATION AND AVAILABILITY BY INDUSTRY SECTOR

The Airport requested CHA to present an analysis of MSCAA's contract data utilization and availability by broad industry subsector. CHA grouped the NAICS codes where the Airport let contracts into four categories: Construction, Construction-Related Services, Goods, and Services. This Appendix presents the analysis for FAA and non-FAA funded contracts. Concession contracts have already been disaggregated in the body of the Report into non-car rental and car rental contracts. The results have been rounded under standard principles for ease of reading and comprehension.

1. FAA-funded Contracts

Table H-1 presents the NAICS codes used by FAA funding grouped into industry sectors.

Table H-1: FAA - NAICS Codes and NAICS Code Labels by Industry Sector

NAICS	NAICS Code Label
Construction	
236210	Industrial Building Construction
236220	Commercial and Institutional Building Construction
237110	Water and Sewer Line and Related Structures Construction
237310	Highway, Street, and Bridge Construction
237990	Other Heavy and Civil Engineering Construction
238110	Poured Concrete Foundation and Structure Contractors
238120	Structural Steel and Precast Concrete Contractors
238130	Framing Contractors

NAICS	NAICS Code Label
238140	Masonry Contractors
238160	Roofing Contractors
238210	Electrical Contractors and Other Wiring Installation Contractors
238220	Plumbing, Heating, and Air-Conditioning Contractors
238290	Other Building Equipment Contractors
238320	Painting and Wall Covering Contractors
238390	Other Building Finishing Contractors
238910	Site Preparation Contractors
238990	All Other Specialty Trade Contractors
561730	Landscaping Services
722310	Food Service Contractors
Construction Related Services	
541310	Architectural Services
541330	Engineering Services
541340	Drafting Services
541370	Surveying and Mapping (except Geophysical) Services
541380	Testing Laboratories
541430	Graphic Design Services
541620	Environmental Consulting Services
Goods	
423510	Metal Service Centers and Other Metal Merchant Wholesalers
441110	New Car Dealers
Services	
484220	Specialized Freight (except Used Goods) Trucking, Local
541810	Advertising Agencies
561612	Security Guards and Patrol Services
561990	All Other Support Services

Table H-2 through Table H-5 present the utilization, unweighted availability and availability analysis for the four industry subsectors.

**Table H-2: FAA - Utilization, Unweighted Availability, and Weighted Availability:
Construction**

	Black	Hispanic	Asian	Native American	White Women	M/W/DBE	Non-M/W/DBE
Utilization	6.1%	4.1%	1.3%	0.0%	13.4%	24.9%	75.1%
Unweighted Availability	10.1%	0.7%	0.4%	0.4%	4.9%	16.5%	83.5%
Weighted Availability	14.5%	1.5%	1.3%	0.6%	7.8%	25.6%	74.4%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

**Table H-3: FAA - Utilization, Unweighted Availability, and Weighted Availability:
Construction-Related Services**

	Black	Hispanic	Asian	Native American	White Women	M/W/DBE	Non-M/W/DBE
Utilization	15.7%	0.0%	10.8%	0.0%	2.2%	28.7%	71.3%
Unweighted Availability	9.6%	0.4%	3.3%	0.1%	8.0%	21.5%	78.5%
Weighted Availability	8.3%	0.3%	4.5%	0.2%	7.5%	20.9%	79.1%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

**Table H-4: FAA - Utilization, Unweighted Availability, and Weighted Availability:
Goods**

	Black	Hispanic	Asian	Native American	White Women	M/W/DBE	Non-M/W/DBE
Utilization	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Unweighted Availability	1.0%	0.0%	0.0%	0.2%	2.6%	3.8%	96.2%
Weighted Availability	3.5%	0.0%	0.0%	1.1%	2.3%	6.9%	93.1%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

**Table H-5: FAA - Utilization, Unweighted Availability, and Weighted Availability:
Services**

	Black	Hispanic	Asian	Native American	White Women	M/W/DBE	Non-M/W/DBE
Utilization	70.7%	0.0%	0.0%	0.0%	28.7%	99.4%	0.6%
Unweighted Availability	5.4%	0.2%	0.2%	0.0%	3.9%	9.7%	90.3%
Weighted Availability	25.9%	0.3%	0.5%	0.0%	9.8%	35.6%	64.4%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

2. Non-FAA Funded Contracts

Table H-6 presents the NAICS codes used by non-FAA funding grouped into industry sectors.

Table H-6: Non-FAA - NAICS Codes and NAICS Code Labels by Industry Sector

NAICS	NAICS Code Label
NON-FAA - Construction	
236210	Industrial Building Construction
236220	Commercial and Institutional Building Construction
237110	Water and Sewer Line and Related Structures Construction
237310	Highway, Street, and Bridge Construction
238120	Structural Steel and Precast Concrete Contractors
238140	Masonry Contractors
238150	Glass and Glazing Contractors
238160	Roofing Contractors
238210	Electrical Contractors and Other Wiring Installation Contractors
238220	Plumbing, Heating, and Air-Conditioning Contractors
238290	Other Building Equipment Contractors
238310	Drywall and Insulation Contractors
238320	Painting and Wall Covering Contractors
238330	Flooring Contractors
238340	Tile and Terrazzo Contractors
238350	Finish Carpentry Contractors

NAICS	NAICS Code Label
238390	Other Building Finishing Contractors
238910	Site Preparation Contractors
238990	All Other Specialty Trade Contractors
332321	Metal Window and Door Manufacturing
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers
423390	Other Construction Material Merchant Wholesalers
423440	Other Commercial Equipment Merchant Wholesalers
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers
423830	Industrial Machinery and Equipment Merchant Wholesalers
444190	Other Building Material Dealers
561622	Locksmiths
561730	Landscaping Services
Construction Related Services	
541310	Architectural Services
541330	Engineering Services
541340	Drafting Services
541370	Surveying and Mapping (except Geophysical) Services
541380	Testing Laboratories
541410	Interior Design Services
541511	Custom Computer Programming Services
541620	Environmental Consulting Services
Goods	
237130	Power and Communication Line and Related Structures Construction
315210	Cut and Sew Apparel Contractors
321113	Sawmills
423110	Automobile and Other Motor Vehicle Merchant Wholesalers
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers
423130	Tire and Tube Merchant Wholesalers
423140	Motor Vehicle Parts (Used) Merchant Wholesalers

NAICS	NAICS Code Label
423210	Furniture Merchant Wholesalers
423330	Roofing, Siding, and Insulation Material Merchant Wholesalers
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers
423510	Metal Service Centers and Other Metal Merchant Wholesalers
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers
423690	Other Electronic Parts and Equipment Merchant Wholesalers
423710	Hardware Merchant Wholesalers
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers
423740	Refrigeration Equipment and Supplies Merchant Wholesalers
423840	Industrial Supplies Merchant Wholesalers
423850	Service Establishment Equipment and Supplies Merchant Wholesalers
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers
423990	Other Miscellaneous Durable Goods Merchant Wholesalers
424130	Industrial and Personal Service Paper Merchant Wholesalers
424310	Piece Goods, Notions, and Other Dry Goods Merchant Wholesalers
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers
424340	Footwear Merchant Wholesalers
424430	Dairy Product (except Dried or Canned) Merchant Wholesalers
424690	Other Chemical and Allied Products Merchant Wholesalers
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)
424910	Farm Supplies Merchant Wholesalers
441110	New Car Dealers
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers
441310	Automotive Parts and Accessories Stores
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)
488490	Other Support Activities for Road Transportation
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing
562991	Septic Tank and Related Services

NAICS	NAICS Code Label
Services	
115112	Soil Preparation, Planting, and Cultivating
323111	Commercial Printing (except Screen and Books)
424210	Drugs and Druggists' Sundries Merchant Wholesalers
484210	Used Household and Office Goods Moving
484220	Specialized Freight (except Used Goods) Trucking, Local
485113	Bus and Other Motor Vehicle Transit Systems
485310	Taxi Service
488119	Other Airport Operations
512110	Motion Picture and Video Production
515112	Radio Stations
517312	Wireless Telecommunications Carriers (except Satellite)
524113	Direct Life Insurance Carriers
524128	Other Direct Insurance (except Life, Health, and Medical) Carriers
524292	Third Party Administration of Insurance and Pension Funds
531210	Offices of Real Estate Agents and Brokers
531320	Offices of Real Estate Appraisers
541110	Offices of Lawyers
541211	Offices of Certified Public Accountants
541219	Other Accounting Services
541420	Industrial Design Services
541613	Marketing Consulting Services
541810	Advertising Agencies
541820	Public Relations Agencies
541890	Other Services Related to Advertising
541910	Marketing Research and Public Opinion Polling
561320	Temporary Help Services
561612	Security Guards and Patrol Services
561710	Exterminating and Pest Control Services
561720	Janitorial Services
561920	Convention and Trade Show Organizers

NAICS	NAICS Code Label
561990	All Other Support Services
562111	Solid Waste Collection
562910	Remediation Services
611420	Computer Training
611519	Other Technical and Trade Schools
621498	All Other Outpatient Care Centers
621999	All Other Miscellaneous Ambulatory Health Care Services
711130	Musical Groups and Artists
722320	Caterers
811111	General Automotive Repair
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance
812320	Drycleaning and Laundry Services (except Coin-Operated)
922130	Legal Counsel and Prosecution
922190	Other Justice, Public Order, and Safety Activities

Table H-7 through Table H-10 present the utilization, unweighted availability, and availability analysis for the four industry sectors.

Table H-7: Non-FAA - Utilization, Unweighted Availability, Weighted Availability, and Disparity Ratios:
Construction

	Black	Hispanic	Asian	Native American	White Women	M/W/DBE	Non-M/W/DBE
Utilization	15.2%	1.0%	7.7%	0.2%	24.6%	48.7%	51.3%
Unweighted Availability	9.0%	0.6%	0.4%	0.4%	5.3%	15.7%	84.3%
Weighted Availability	13.4%	1.2%	0.9%	0.6%	7.4%	23.5%	76.5%
Disparity Ratio	113.6%	81.9%	887.2%	37.6% [‡]	332.2% ^{***}	207.7% ^{***}	67.0% ^{‡***}

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

*** Indicates statistical significance at the 0.001 level

‡ Indicates substantive significance

Table H-8: Non-FAA - Utilization, Unweighted Availability, Weighted Availability, and Disparity Ratios
Construction Related Services

	Black	Hispanic	Asian	Native American	White Women	M/W/DBE	Non-M/W/DBE
Utilization	2.8%	0.2%	10.7%	0.0%	3.3%	17.0%	83.0%
Unweighted Availability	6.6%	0.4%	3.1%	0.1%	10.3%	20.5%	79.5%
Weighted Availability	7.5%	0.3%	3.6%	0.1%	8.0%	19.6%	80.4%
Disparity Ratio	37.3% [‡]	74.5% [‡]	296.1%	0.0% [‡]	40.9% [‡]	86.7%	103.2%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

[‡] Indicates substantive significance

Table H-9: Non-FAA - Utilization, Unweighted Availability, Weighted Availability, and Disparity Ratios
Goods

	Black	Hispanic	Asian	Native American	White Women	M/W/DBE	Non-M/W/DBE
Utilization	13.9%	1.0%	0.0%	0.0%	9.2%	24.1%	75.9%
Unweighted Availability	4.1%	0.1%	0.3%	0.1%	4.6%	9.2%	90.8%
Weighted Availability	21.8%	0.2%	0.2%	0.2%	8.4%	30.7%	69.3%
Disparity Ratio	64.0% [‡]	610.5%	0.0% [‡]	0.0% [‡]	108.5%	78.5% [‡]	109.6%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

[‡] Indicates substantive significance

**Table H-10: Non-FAA - Utilization, Unweighted Availability, Weighted Availability, and Disparity Ratios:
Services**

	Black	Hispanic	Asian	Native America n	White Women	M/W/DBE	Non- M/W/DBE
Utilization	15.4%	0.1%	0.0%	0.0%	12.2%	27.8%	72.2%
Unweighted Availability	6.0%	0.2%	0.2%	0.0%	5.2%	11.6%	88.4%
Weighted Availability	15.3%	0.2%	0.5%	0.0%	11.4%	27.4%	72.6%
Disparity Ratio	101.0%	64.1% [‡]	1.7% [‡]	0.0% [‡]	107.5%	101.5%	99.4%

Source: CHA analysis of MSCAA's Data; Hoovers; CHA Master Directory.

[‡] Indicates substantive significance

APPENDIX I:

ANECDOTAL SURVEY RESPONSES

- RESPONSES DISAGGREGATED BY RACE/ETHNICITY AND GENDER

Do you experience barriers to contracting opportunities based on race and/or gender?

Response	American Indian/ Alaska Native	Asian-Pacific American/ Subcontinent Asian American	Black/African-American	Hispanic-American/ Latino	White/ Caucasian Women	Total
Yes	2	1	50	2	22	77
	50.00%	100.00%	46.30%	50.00%	34.38%	42.54%
No	2	0	58	2	42	104
	50.00%	0.00%	53.70%	50.00%	65.63%	57.46%
Total	4	1	108	4	64	181

Is your competency questioned based on your race and/or gender?

Response	American Indian/ Alaska Native	Asian-Pacific American/ Subcontinent Asian American	Black/African-American	Hispanic-American/ Latino	White/ Caucasian Women	Total
Yes	1	1	29	1	12	44
	25.00%	100.00%	26.85%	25.00%	18.75%	24.31%
No	3	0	79	3	52	137
	75.00%	0.00%	73.15%	75.00%	81.25%	75.69%
Total	4	1	108	4	64	181

Do you have access to informal and formal networking information?

Response	American Indian/ Alaska Native	Asian-Pacific American/ Subcontinent Asian American	Black/African-American	Hispanic-American/ Latino	White/ Caucasian Women	Total
Yes	4	1	80	0	61	146
	100.00%	100.00%	74.07%	0.00%	95.31%	80.66%
No	0	0	28	4	3	35
	0.00%	0.00%	25.93%	100.00%	4.69%	19.34%
Total	4	1	108	4	64	181

Do you have the same access to the same information as other non-DBE and non-ACDBE certified firms in your industry?

Response	American Indian/ Alaska Native	Asian-Pacific American/ Subcontinent Asian American	Black/African-American	Hispanic-American/ Latino	White/ Caucasian Women	Total
Yes	4	1	64	0	52	121
	100.00%	100.00%	59.26%	0.00%	81.25%	66.85%
No	0	0	44	4	12	60
	0.00%	0.00%	40.74%	100.00%	18.75%	33.15%
Total	4	1	108	4	64	181

Do you have unequal access to any of the following:

Response	American Indian/ Alaska Native	Asian-Pacific American/ Subcontinent Asian American	Black/African-American	Hispanic-American/ Latino	White/ Caucasian Women	Total
Insurance	3	1	12	0	8	24
	75.00%	100.00%	11.11%	0.00%	12.50%	13.26%
Bonding	3	0	17	0	7	27
	75.00%	0.00%	15.74%	0.00%	10.94%	14.92%
Financing	3	0	32	1	10	46
	75.00%	0.00%	29.63%	25.00%	15.63%	25.41%
Business Networks	2	0	23	1	9	35
	50.00%	0.00%	21.30%	25.00%	14.06%	19.34%
Total	4	1	108	4	64	181

Do you get solicited for MSCAA or government projects with DBE, BDD or ACDBE goals?

Response	American Indian/ Alaska Native	Asian-Pacific American/ Subcontinent Asian American	Black/African-American	Hispanic-American/ Latino	White/ Caucasian Women	Total
Yes	3	1	45	2	41	92
	75.00%	100.00%	41.67%	50.00%	64.06%	50.83%
No	1	0	63	2	23	89
	25.00%	0.00%	58.33%	50.00%	35.94%	49.17%
Total	4	1	108	4	64	181

Do you get solicited for private projects and projects with no goals?

Response	American Indian/ Alaska Native	Asian-Pacific American/ Subcontinent Asian American	Black/African-American	Hispanic-American/ Latino	White/ Caucasian Women	Total
Yes	4	0	39	2	45	90
	100.00%	0.00%	36.11%	50.00%	70.31%	49.72%
No	0	1	69	2	19	91
	0.00%	100.00%	63.89%	50.00%	29.69%	50.28%
Total	4	1	108	4	64	181

How does the size of your firm's contracts compare to the contract amount your firm is qualified to perform?

Response	American Indian/ Alaska Native	Asian-Pacific American/ Subcontinent Asian American	Black/African-American	Hispanic-American/ Latino	White/ Caucasian Women	Total
Slightly above amount qualified to perform	1	0	7	1	1	10
	25.00%	0.00%	6.48%	25.00%	1.56%	5.52%
Slightly below the amount qualified to perform	0	0	12	0	15	27
	0.00%	0.00%	11.11%	0.00%	23.44%	14.92%

Memphis-Shelby County Airport Authority Disparity Study 2022

Response	American Indian/ Alaska Native	Asian-Pacific American/ Subcontinent Asian American	Black/African-American	Hispanic-American/ Latino	White/ Caucasian Women	Total
Equal to amount qualified to perform	2	1	32	2	25	62
	50.00%	100.00%	29.63%	50.00%	39.06%	34.25%
Well below amount qualified to perform	1	0	48	1	22	72
	25.00%	0.00%	44.44%	25.00%	34.38%	39.78%
Well above amount qualified to perform	0	0	9	0	1	10
	0.00%	0.00%	8.33%	0.00%	1.56%	5.52%
Total	4	1	108	4	64	181

Does MSCAA pay promptly?

Response	American Indian/ Alaska Native	Asian-Pacific American/ Subcontinent Asian American	Black/African-American	Hispanic-American/ Latino	White/ Caucasian Women	Total
Yes	1	1	26	2	27	57
	50.00%	100.00%	89.66%	100.00%	100.00%	93.44%
No	1	0	3	0	0	4
	50.00%	0.00%	10.34%	0.00%	0.00%	6.56%
Total	2	1	29	2	27	61

Do prime contractors/consultants pay promptly?

Response	American Indian/ Alaska Native	Asian-Pacific American/ Subcontinent Asian American	Black/African-American	Hispanic-American/ Latino	White/ Caucasian Women	Total
Yes	2	1	25	1	31	60
	50.00%	100.00%	67.57%	100.00%	81.58%	74.07%
No	2	0	12		7	21
	50.00%	0.00%	32.43%	0.00%	18.42%	25.93%
Total	4	1	37	1	38	81

Have you ever participated in any of the following business support or development activities for DBEs, M/WBEs, ACDBEs? Financing or loan programs*

Response	American Indian/ Alaska Native	Asian-Pacific American/ Subcontinent Asian American	Black/African-American	Hispanic-American/ Latino	White/ Caucasian Women	Total
Financing or Loan	1	0	15	0	3	19
	25.00%	0.00%	13.89%	0.00%	4.69%	10.50%
Bonding	0	0	8	0	2	10
	0.00%	0.00%	7.41%	0.00%	3.13%	5.52%
Mentor Protégé	0	1	7	0	6	14
	0.00%	100.00%	6.48%	0.00%	9.38%	7.73%
Administrative Support	0	0	15	0	10	25
	0.00%	0.00%	13.89%	0.00%	15.63%	13.81%
Joint Venture	2	0	15	0	10	27
	50.00%	0.00%	13.89%	0.00%	15.63%	14.92%
Have not participated in any supportive services	2	0	68	4	43	117
	50.00%	0.00%	62.96%	100.00%	67.19%	64.64%
Total	4	1	108	4	64	181

