



# Metropolitan Nashville Airport Authority

## DISPARITY STUDY FINAL REPORT

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**GS** GRIFFIN &  
STRONG P.C.  
ATTORNEYS AND PUBLIC POLICY CONSULTANTS



# METROPOLITAN NASHVILLE AIRPORT AUTHORITY DISPARITY STUDY

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## I. INTRODUCTION

In October 2018, the Metropolitan Nashville Airport Authority (“MNA”) contracted with Griffin & Strong, P.C. (“GSPC”) to conduct an updated disparity study to determine the utilization of Small, Minority, Nonminority Females, and Disadvantaged Business Enterprises (collectively, “MWDBE”) and Airport Concessions Disadvantaged Business Enterprises (“ACDBE”) relative to the availability of such firms to compete for business on Construction and Construction-Related Professional Services, Professional Services, and Goods and Services contracts let by MNA. Governmental entities, such as MNA, have utilized disparity studies as a tool to respond to the Supreme Court’s decision in, City of Richmond v. J.A. Croson Co.<sup>1</sup> and the cases which followed, to determine whether there has been a compelling interest for remedial procurement programs, based upon ethnicity, race, and gender.

The Study collected and analyzed relevant data on businesses in the industries of:

1. Construction and Construction-Related Professional Services (non-federal and federal)
2. Professional Services
3. Goods and Services

The disparity study (“Study”) analyzes the five (5) year period from July 1, 2013 - June 30, 2018 (FY2014-FY2018) (“Study Period”).

### A. Objectives

The principal objectives of this study are:

1. Is there is a statistically significant disparity in the relevant geographic and product markets between the percentage of qualified minority and Nonminority Female owned firms (“MWBE”), Disadvantaged Enterprises Businesses ( and “DBE”) willing and able to provide goods or services to MNA in each category of contracts and the percentage of such firms actually utilized by MNA (whether as prime contractors/consultants or subcontractors/consultants)?

2. If a statistically significant disparity exists, have factors, other than race and gender, been ruled out as the cause of that disparity, such that there can be an inference of discrimination?

3. If there is an inference of discrimination, can the discrimination be adequately remedied with race-neutral and gender- neutral remedies?

4. If there is an inference of discrimination and race and gender neutral remedies are not sufficient, does the evidence from the Study legally support a race and/or gender-conscious remedial program?

5. If there is an inference of discrimination, are the proposed remedies narrowly tailored to the strong basis in evidence from the Study?

<sup>1</sup> City of Richmond v. J.A. Croson Co., 488 U.S. 469 (1989).



## B. Technical Approach

In conducting this Study and preparing its recommendations, GSPC followed a carefully designed work plan that allowed Study team members to fully analyze availability, utilization, and disparity about MWDBE participation. The final work plan consisted of, but was not limited to, the following major tasks:

- establishing data parameters and finalizing a work plan;
- legal analysis;
- policy and procurement process review and remedial program analysis;
- collecting, organizing, and cleaning data;
- conducting market area analyses;
- conducting product market analysis;
- conducting utilization analyses;
- estimating the availability of qualified firms;
- analyzing the utilization and availability data for disparity and significance;
- conducting private sector analysis including credit and self-employment analysis;
- collecting and analyzing anecdotal information; and
- preparing a final report that presents race- and gender-neutral and narrowly tailored race- and gender-based remedies.

## C. Report Organization

This report is organized into the following sections, which provide the results of GSPC's quantitative and qualitative analysis. In addition to this introductory chapter, this report includes:

- Chapter II, the Executive Summary including a summary of the findings and recommendations based on the analysis.
- Chapter III, which presents a legal overview of disparity studies and the requirements for race- and gender-conscious programs.
- Chapter IV, which provides a review of MNAA's purchasing policies and practices, particularly as they relate to minority and Nonminority Female owned firms.
- Chapter V, which presents the methodology used in the collection of statistical data from MNAA and the analyses of those data as they relate to relative MWDBE utilization and availability for prime contractors and subcontractors.
- Chapter VI, which presents an analysis of disparities, if any, in the private sector.
- Chapter VII, which provides the analysis of anecdotal data collected from the survey of business owners, personal interviews, focus groups, public hearings, organizational meetings, and emailed comments.
- Chapter VII, Study Conclusion.

Concessions Utilization and Disparity is in Appendix I.

Note: Study Definitions are contained in Appendix D.

## II. EXECUTIVE SUMMARY

The findings and recommendations are presented from the disparity study conducted by GSPC for MNAA related to Construction and Construction Related Professional Services (Federal), Construction and Construction Related Professional Services (Non-Federal), Professional Services and Goods and Services for the Study Period.

As indicated in the findings below, GSPC found statistically significant underutilization of Minority and Nonminority Female owned firms as prime contractors in all four (4) work categories that were analyzed. In subcontracting, using the Prime plus subcontracting analysis, M/WBE and DBE firms were found to be statistically significantly underutilized in every work category. GSPC also collected and analyzed anecdotal evidence of the experiences of firms in MNAA's Relevant Market in order to help shape GSPC's findings and recommendations. Lastly, GSPC performed a regression analysis that found that there was evidence indicating that the identified disparities were likely caused by the race, ethnicity, or gender status of the firm owners, enough so that an "inference of discrimination" can be made.

### A. STUDY FINDINGS

#### ***FINDING 1: LEGAL FINDINGS***

Consistent with the "narrow tailoring" aspect of the strict scrutiny analysis, MNAA continues to implement race- and gender-neutral measures to try to increase utilization of MWDBE firms, but the present Study shows that those measures have not been effective in ameliorating the identified disparities.<sup>2</sup> Accordingly, MNAA has a basis to continue and/or introduce race- and gender-conscious remedies or policies toward that goal.<sup>3</sup>

Moreover, the use of a regression analysis and consideration of the contracting environment in the private sector as part of this Study allow MNAA to demonstrate that factors other than MWDBE status cannot fully account for the statistical disparities found. Stated otherwise, MNAA can show that MWDBE status continues to have an adverse impact on a firm's ability to secure contracting opportunities with MNAA, further supporting more aggressive remedial efforts.

Lastly, having obtained statistical and anecdotal evidence of disparities that are race-, ethnicity-, and gender-specific, MNAA can ensure that the more robust remedies considered as a result of this Study can be limited to minority groups for which underutilization and an inference of discrimination has been identified.<sup>4</sup>

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<sup>2</sup> See Croson, 488 U.S. at 507-08.

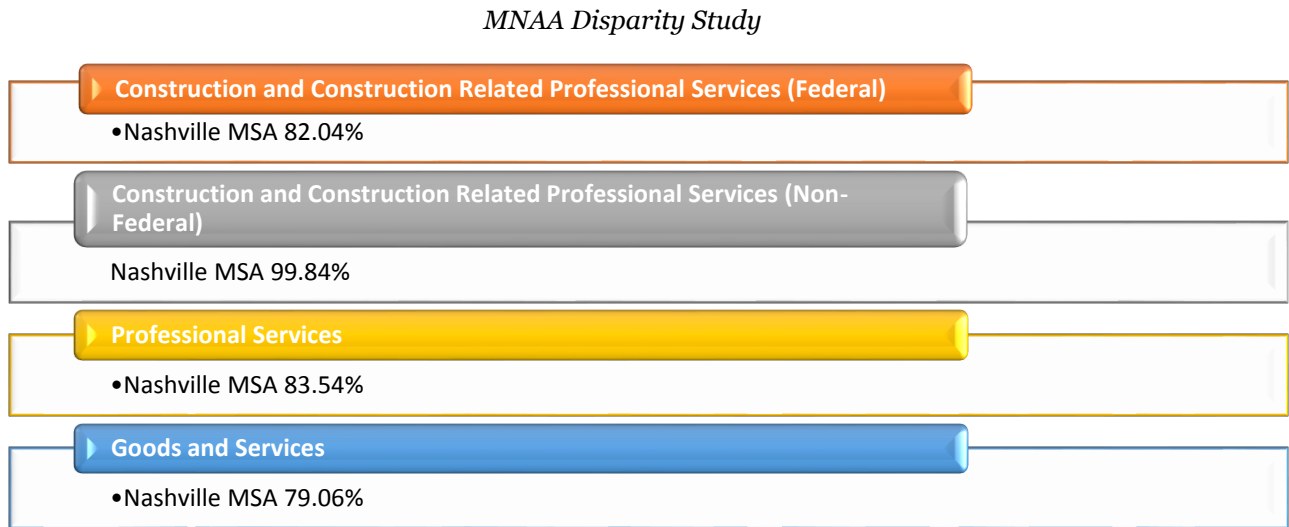
<sup>3</sup> Id.

<sup>4</sup> Id.; see also H.B. Rowe Company, Inc. v. W. Lindo Tippett, 615 F.3d 233, 256-58 (4<sup>th</sup> Cir. 2010) (finding strong basis in evidence for remedial action for Black American and Native American firms, but no similar

**FINDING 2: GEOGRAPHIC MARKETS**

The figure below summarizes the geographical area where at least 75 percent of prime awardees were located in each industry. In analyzing the Relevant Market data, GSPC tabulated the percentage of dollars paid, beginning with Davidson County, TN (by zip codes). GSPC next radiated out to count the dollars spent in the Nashville Metropolitan Statistical Area (MSA)<sup>5</sup> until the cumulative percentage was equal to or greater than 75 percent. The availability and utilization analyses were conducted only on firms with offices within the Relevant Markets. The results were as follows:

*Figure 1: Summary of Relevant Geographic Market (by payments):*



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**FINDING 3: AVAILABILITY**

The measures of availability utilized in this disparity study incorporate all of the criteria of availability required by Croson:

- The firm does business within an industry group from which MNAA makes certain purchases.
- The firm's owner has taken steps to demonstrate interest in doing business with government.
- The firm is located within a relevant geographical area such that it can do business with MNAA.

The firms used to calculate Availability came from GSPC’s Master Vendor File of firms seeking public sector opportunities in the Relevant Market. GSPC found that firms were available to provide goods and services to MNAA as reflected in the following percentages by each race, ethnicity, and gender group.

basis for inclusion of other minority groups (including Nonminority Female owned businesses) in the remedial policy).

<sup>5</sup> The Nashville MSA includes the counties of Davidson, Williamson, and Wilson.

*Table 1: Summary of Availability Estimates by Work Category In the Relevant Market  
(Based upon GSPC's Master Vendor File)  
MNAA Disparity Study*

<b>Business Ownership Classification</b>	<b>Construction and Construction-Related Professional Services</b>	<b>Professional Services</b>	<b>Goods and Services</b>
Black American	18.61%	15.70%	10.40%
Asian American	1.66%	0.72%	0.70%
Hispanic American	1.97%	1.99%	1.17%
Native American	0.45%	0.18%	0.35%
<b>TOTAL MBE</b>	<b>22.69%</b>	<b>18.59%</b>	<b>12.62%</b>
Nonminority Female	15.13%	10.29%	5.26%
<b>TOTAL M/WBE</b>	<b>37.82%</b>	<b>28.88%</b>	<b>17.87%</b>
NON-M/W/DBE	62.18%	71.12%	82.13%
<b>TOTAL FIRMS</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

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***FINDING 4: M/WBE PRIME UTILIZATION***

As the table below shows, MNAA paid out a total of \$201.7 million in prime Construction and Construction-Related Professional Services (non-federal) spending in the Relevant Market during the study period and \$12.3 million of this amount, or 6.13% of this amount was paid to M/WBE firms as prime contractors. MNAA expended a total of \$84.3 million in prime Construction and Construction-Related Professional Services (federal) in the Relevant Market during the study period and \$176,854 of this amount, or 0.21% of this amount was paid to M/WBE firms as prime contractors. M/WBEs were paid 1.63% and 0.91% of Professional Services and Goods & Services expenditures respectively.

Table 2: Summary of Prime Utilization by Work Category  
(Based upon Spend)  
MNAA Disparity Study

Firm Ownership	Construction and Construction Related Professional Services-Nonfederal		Construction and Construction Related Professional Services-Federal		Professional Services		Goods and Services		Total
Black American	\$ 1,886,793	0.94%	\$ 66,892	0.08%	\$ 777,057	0.76%	\$ 590,917	0.65%	\$ 3,321,659
Asian American	\$ 36,693	0.02%	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ 36,693
Hispanic American	\$ 2,436,713	1.21%	\$ 21,315	0.03%	\$ 125,522	0.12%	\$ 16,814	0.02%	\$ 2,600,364
Native American	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -
<b>TOTAL MINORITY</b>	<b>\$ 4,360,199</b>	<b>2.16%</b>	<b>\$ 88,207</b>	<b>0.10%</b>	<b>\$ 902,579</b>	<b>0.89%</b>	<b>\$ 607,731</b>	<b>0.67%</b>	<b>\$ 5,958,715</b>
Nonminority Female	\$ 7,997,275	3.96%	\$ 88,646	0.11%	\$ 756,647	0.74%	\$ 214,298	0.24%	\$ 9,056,867
<b>TOTAL M/WBE</b>	<b>\$ 12,357,474</b>	<b>6.13%</b>	<b>\$ 176,854</b>	<b>0.21%</b>	<b>\$ 1,659,226</b>	<b>1.63%</b>	<b>\$ 822,029</b>	<b>0.91%</b>	<b>\$ 15,015,583</b>
NON-M/WBE	\$ 189,396,375	93.87%	\$ 84,152,221	99.79%	\$ 100,288,808	98.37%	\$ 89,557,269	99.09%	\$ 463,394,673
<b>TOTAL FIRMS</b>	<b>\$ 201,753,849</b>	<b>100.00%</b>	<b>\$ 84,329,075</b>	<b>100.00%</b>	<b>\$ 101,948,034</b>	<b>100.00%</b>	<b>\$ 90,379,298</b>	<b>100.00%</b>	<b>\$ 478,410,256</b>

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**FINDING 5: M/WBE TOTAL UTILIZATION (PRIME PLUS SUBCONTRACTOR)<sup>6</sup>**

MBEs received \$17.8 million during the Study Period, 8.84% of the total (prime plus subcontractor) Construction and Construction-related Professional Services (non-federal) dollars, while Nonminority Female owned firms (WBEs) were paid a total of \$14.9 million, 7.42% of the total Construction dollars. M/WBEs received 16.26% of the total Construction and Construction-related Professional Services (non-federal) dollars (Table 3).

MBEs received \$4.8 million during the Study Period, 5.80% of the total (prime plus subcontractor) Construction and Construction-related Professional Services (federal) dollars, while Nonminority Female owned firms were paid a total of \$408,476, 0.48% of the total Construction and Construction-Related Professional Services dollars. M/WBEs received 6.28% of the total Construction and Construction-related Professional Services (federal) dollars (Table 3).

MBEs received \$1.4 in total Professional Services (prime plus subcontractor) during the Study Period, 1.36% of the total Professional Services dollars, while Nonminority Female owned firms were paid a total of \$1.1 million, 1.12% of the total Professional Services dollars. M/WBEs received 2.48% of the total Professional Services dollars (Table 3).

<sup>6</sup> GSPC conducted a total utilization analysis by combining prime contract dollars with subcontract dollars, after subtracting subcontract dollars from prime contract dollars on a contract by contract basis. This analysis was only conducted for construction and professional services which had significant levels of subcontracting reported

MBEs received \$607,731 in total Goods & Services (prime plus subcontractor) during the Study Period, 0.67% of the total Goods & Services dollars, while Nonminority Female owned firms were paid a total of \$214,298, 0.24% of the total Goods & Services dollars. M/WBEs received 0.91% of the total Goods & Services dollars (Table 3).

*Table 3: Summary of Total Utilization by Work Category In the Relevant Market  
(Based upon Spend FY2014-FY2018)  
MNAA Disparity Study*

Business Ownership Classification	Construction Non-Federal	Construction Federal	Professional Services	Goods & Services
	(\$)	(\$)	(\$)	(\$)
Black American	\$ 13,609,302	\$ 4,467,457	\$ 1,261,673	\$ 590,917
Asian American	\$ 1,247,639	\$ 398,731	\$ -	\$ -
Hispanic American	\$ 2,476,613	\$ 21,315	\$ 125,522	\$ 16,814
Native American	\$ 503,365	\$ -	\$ -	\$ -
<b>TOTAL MINORITY</b>	<b>\$ 17,836,919</b>	<b>\$ 4,887,503</b>	<b>\$ 1,387,195</b>	<b>\$ 607,731</b>
Nonminority Female	\$ 14,974,177	\$ 408,476	\$ 1,141,247	\$ 214,298
<b>TOTAL M/WBE</b>	<b>\$ 32,811,096</b>	<b>\$ 5,295,979</b>	<b>\$ 2,528,443</b>	<b>\$ 822,029</b>
NON-M/WBE	\$ 168,942,753	\$ 79,033,096	\$ 99,419,591	\$ 89,557,269
<b>TOTAL FIRMS</b>	<b>\$ 201,753,849</b>	<b>\$ 84,329,075</b>	<b>\$ 101,948,034</b>	<b>\$ 90,379,298</b>
Business Ownership Classification	TOTAL	TOTAL	TOTAL	TOTAL
	(%)	(%)	(%)	(%)
Black American	6.75%	5.30%	1.24%	0.65%
Asian American	0.62%	0.47%	0.00%	0.00%
Hispanic American	1.23%	0.03%	0.12%	0.02%
Native American	0.25%	0.00%	0.00%	0.00%
<b>TOTAL MINORITY</b>	<b>8.84%</b>	<b>5.80%</b>	<b>1.36%</b>	<b>0.67%</b>
Nonminority Female	7.42%	0.48%	1.12%	0.24%
<b>TOTAL M/WBE</b>	<b>16.26%</b>	<b>6.28%</b>	<b>2.48%</b>	<b>0.91%</b>
NON-M/WBE	83.74%	93.72%	97.52%	99.09%
<b>TOTAL FIRMS</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

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**FINDING 6: SUMMARY OF DISPARITY ANALYSIS FOR FY2014-FY2018**

The tables below indicate those M/WBE groups where a statistically significant disparity was found in prime utilization and total utilization.

*Table 4: Summary of Statistically Significant Disparity Outcomes of MWBEs in Prime Contracting*

Firm Ownership	Procurement Type			
	Construction and Construction Related Services-Nonfederal	Construction and Construction Related Services-Federal	Professional Services	Goods and Services
Black American	5.03*	0.42*	4.85*	6.29*
Asian American	1.09*	0*	0*	0*
Hispanic American	61.41*	1.29*	6.20*	1.59*
Native American	0*	0*	0**	0*
<b>TOTAL MBE</b>	<b>9.52*</b>	<b>0.46*</b>	<b>4.76*</b>	<b>5.33*</b>
Nonminority Female	26.20*	0.69*	7.21*	4.51*
<b>TOTAL M/WBE</b>	<b>16.19*</b>	<b>0.55*</b>	<b>5.64*</b>	<b>5.09*</b>
Non-M/WBE	150.98	160.49	138.32	120.66

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<b>Legend:</b>
* Statistically significant disparity (Confidence interval of 95% and probability of error of less than 5%).
** Very small number to produce statistical significance.
Significant Underutilization Disparity (Disparity percentage below 80%).
Insignificant Disparity (over and under) (Disparity percentage 80% to 99.9%).
Significant Overutilization Disparity (Disparity percentage over 100%).
Parity

*Table 5: Summary of Statistically Significant Disparity Outcomes of Underutilization of MWBEs in Prime-Plus Subcontracting*

Firm Ownership	Procurement Type			
	Construction and Construction Related Services-Nonfederal	Construction and Construction Related Services-Federal	Professional Services	Goods and Services
Black American	36.25*	28.47*	7.88*	6.29*
Asian American	37.16*	28.41*	0*	0*
Hispanic American	62.42*	1.29*	6.20*	1.59*
Native American	54.97	0*	0**	0*
<b>TOTAL MBE</b>	<b>38.96*</b>	<b>25.54*</b>	<b>7.32*</b>	<b>5.33*</b>
Nonminority Female	49.06*	3.20*	10.88*	4.51*
<b>TOTAL M/WBE</b>	<b>43*</b>	<b>16.60*</b>	<b>8.59*</b>	<b>5.09*</b>
Non-M/WBE	134.67	150.73	137.1218493	120.66

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<b>Legend:</b>
* Statistical significant disparity (Confidence interval of 95% and probability of error of less than 5%).
** Very small number to produce statistical significance.
Significant Underutilization Disparity (Disparity percentage below 80%).
Insignificant Disparity (over and under) (Disparity percentage 80% to 99.9%).
Significant Overutilization Disparity (Disparity percentage over 100%).
Parity



**FINDING 7: STATEWIDE PROGRAM AREA AVAILABILITY**

MNAA’s current MWBE program is a Tennessee statewide program, however the Relevant Market for purposes of the Study included only the three-counties of the Nashville MSA. Therefore, GSPC conducted an analysis of the State of Tennessee to determine if there was statistical and anecdotal support to continue the MWBE Program on a statewide basis. Table 6 below shows the Availability of firms in the State of Tennessee and Appendix J contains the statewide disparity analysis. GSPC found that there were statistically significant disparities that extended statewide and therefore substantial support for MNAA to continue with the State of Tennessee as its Program Area.

*Table 6: Summary of Availability in the MNAA Current Program Area (State of Tennessee)*

Business Ownership Classification	Construction and Construction-Related Professional Services		Professional Services		Goods and Services	
	#	%	#	%	#	%
Black American	156	16.05%	90	12.93%	192	16.86%
Asian American	15	1.54%	6	0.86%	11	0.97%
Hispanic American	18	1.85%	17	2.44%	13	1.14%
Native American	6	0.62%	1	0.14%	5	0.44%
<b>TOTAL MBE</b>	<b>195</b>	<b>20.06%</b>	<b>114</b>	<b>16.38%</b>	<b>221</b>	<b>19.40%</b>
Nonminority Female	123	12.65%	58	8.33%	75	6.58%
<b>TOTAL M/WBE</b>	<b>318</b>	<b>32.72%</b>	<b>172</b>	<b>24.71%</b>	<b>296</b>	<b>25.99%</b>
NON-M/W/DBE	654	67.28%	524	75.29%	843	74.01%
<b>TOTAL FIRMS</b>	<b>972</b>	<b>100.00%</b>	<b>696</b>	<b>100.00%</b>	<b>1,139</b>	<b>100.00%</b>

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**FINDING 8: POLICY FINDINGS**

**1. Procurement Methods**

The following table shows the contract thresholds for MNAA.

*Table 7: Contract Threshold and Procurement Methods  
MNAA Disparity Study*

Price Threshold	Method of Procurement	Notes
Small purchases up to \$10,000	Use the P-card where feasible or enter requisition in AX (the Microsoft Enterprise Resource System) or submit iRFQ to Procurement	Does not track MWBE participation on P cards.
Small purchases \$10,000 to \$50,000	Complete iRFQ for at least 3 vendors or have Procurement obtain quotes	Attempt to receive quotes from MWBEs
Formal competitive purchases (\$50,000 and over)	Bids exceeding the threshold must be purchased through existing MNAA contract, existing cooperative agreement for formal solicitation process	DBE/MWBE participation from BDD

Source: MNAA Procurement Procedures Manual, pages 9-10.

The following methods of procurement are utilized by MNAA:

- a. Purchase Orders (PO) are required for any scopes of work not procured through a formal solicitation process.
- b. Invitations to Bid (ITB) are used where the criteria are primarily price and specifications and the awards are to the responsive and responsible bidder with the lowest price.
- c. Requests for Proposal (RFP) are used for goods and services that are evaluated on price and other criteria that include qualifications and experience. MNAA has used RFPs for goods and services, Design-Build, Construction Manager At-Risk, and Progressive Design-Build. MNAA has put DBE and MWBE goals on all these methods of construction procurement.
- d. Request for Qualifications (RFQ) are used to obtain professional services.
- e. Waiver of Competitive Selection.
- f. On-Call construction and design services are procured by an RFP.
- g. Job Order Contracting.

## 2. Airport Concessions

Until very recently concessions operated under a master concessionaire model, including prime concessionaires and sub-concessionaires. Under the master concessionaire model MNAA had contracts with HMS Host, Hudson Group and Delaware North for concession work in food and beverage and news and gifts. Going forward Fraport USA will oversee the MNAA concessions and retail program for ten years. Under Fraport's model, most of the businesses in ninety new locations will be independently and locally owned. Fraport will manage tenants as a mall and rent out spaces. In FY 2017 MNNA had 5 ACDBE prime concessionaires, 3 ACDBE sub-concessionaires and 21 ACDBEs in Goods & Services.

## 3. Bonding and Insurance Requirements

All MNAA construction projects require 100 percent payment and performance bonds. MNAA does not have a policy or practice of waiving bonds. BDD staff did report some MWBE complaints about bonding.

MNAA recently began using an owner-controlled insurance program (OCIP) under which commercial general liability and other insurance policies are purchased and administered by MNAA. The OCIP provides insurance coverage for MNAA, its prime contractors and subcontractors while they are performing the work at MNAA project sites. Generally, MNAA staff report fewer vendor complaints of insurance requirements as a barrier since the implementation of the OCIP.

## 4. DBE and ACDBE Goals

The MNAA overall DBE goal was 12.4 percent for FY 2018. In 2018 MNAA had seven bids that failed to meet DBE goals or good faith efforts. MNAA has set an ACDBE goal for 22.6 percent involvement under the new concessions business model discussed above. Fraport has committed to achieve 40.5 percent ACDBE participation, along with a mentoring program for tenants at the airport.<sup>7</sup>

## 5. Fostering Small business Utilization

MNAA has made limited use of target markets to foster SBE utilization in pavements, parking lots and professional services (staff augmentation). Target markets procurement limits bidders to SBEs. MNAA has been broadly satisfied with the outcome of target markets for the few projects where it was employed. MNAA is currently working on a process to select more projects for target market solicitations.

## 6. Business Development

MNAA provides a Mentor Protégé program, which provides businesses with classroom- training on topics such as bonding, operations and succession planning. MNAA did not use a third-party supportive services consultant during the study but has undertaken a number of business development initiatives.

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<sup>7</sup> MNAA, August 15, 2018, Minutes of the Joint Meeting of the MNAA Board of Commissioners and MPC Board of Directors, page 9.

**FINDING 9: PRIVATE SECTOR FINDINGS**

The results of the GSPC disparity analysis suggests that being a minority, woman, or disadvantaged business enterprise (“MWDBE”) in the Metropolitan Nashville market area is associated with having lower firm revenues than Nonminority male owned firms. MWDBE firms are also less likely to be self-employed as compared to non-MWDBEs.

Overall, the GSPC regression analysis<sup>8</sup> suggests that any observed disparities in public contracting outcomes between MWDBEs and non-MWDBEs are not explained by differences in capacity for public contracting success with MNA. This follows as a result of the GSPC regression specifications controlling for firm public contracting capacity by including measures for the education level of the firm owner, the age and market tenure of the firm, the size of the firm with respect to the number of employees and revenues, firm bonding capacity, willingness and ability to do business with MNA, and firm financial standing. In other words, GSPC tested the statistically significant disparity that was found between the availability of MWDBEs in the marketplace to see the disparity was caused by something other than the race or gender status of the owner and found that it was not due to other likely capacity factors. This left the race and gender status of the owner as the likely cause of the disparity.

Additionally:

- As compared to non MWDBEs, Black American owned firms, Native American owned firms, bi/multiracial owned firms, and Nonminority Female owned firms are particularly harmed by perceived private sector discrimination.
- As compared to non MWDBEs, MWDBEs are no more likely to be a new firm entering the Nashville market area as a new firm. This means that the disparity in MWDBEs not receiving contract awards cannot be explained because they are new or start up firms.
- As compared to non MWDBEs, the credit capacity of MWDBEs owned by Subcontinent Asians, Asian Pacific Islanders, and possibly for Black American owned firms, certified DBEs, ACDBEs, and certified small business enterprises (“SBEs”) is less than non-MWDBEs. This suggests that any MNA public contracting disparities between small or MWDBEs could be explained by the differentials in access to credit capital.
- As compared to non MWDBEs, with the exception of ACDBEs, the likelihood of MWDBEs never receiving a prime contract was higher relative to non-MWDBEs over the time period under consideration in our analysis. This means that, like contracting with MNA, MWDBEs are less likely to receive a contract in the Metropolitan Nashville Marketplace than Non-MWDBEs.

**FINDING 10: ANECDOTAL FINDINGS**

GSPC engaged in several different types of anecdotal evidence collection, including responses from the Online Survey of Business Owners, a focus group, two public hearings, review of bid protest documents and interviews with staff and local organizations. Listed below are impressions gathered from the community about MNA and diverse contracting.

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<sup>8</sup> The regression analysis shows whether race/ethnicity/gender factors are impediments overall to the success of M/WBEs in obtaining awards in the Nashville marketplace and whether, but for those factors, firms would have the capacity to provide goods and services on a level higher than what is presently being utilized.

## 1. Informal Networks

In the anecdotal interviews, several firms indicated that they benefited personally from having connections – or at least some semblance of connections – to prime contractors or Airport Authority officials. AI-10, AI-11, AI-21 and AI-22 admitted that these contacts helped them get opportunities and repeat business with the airport. According to AI-22, “networking and hard work are the best ways to get new work,” acknowledging previous construction contacts made before she launched her own business had a significant impact on business opportunity. There were other firms, however, that complained about being excluded from MNAA contracts because of informal networks. AI-11 said the biggest barrier to doing business with MNAA was “who you know.” And while AI-13 had obtained work, he said he knew of other minority vendors who did not win bids because of airport staff “directing contracts to those they favored”.

AI-23 said that upon request, MNAA engineers recommend “preferred” firms to the primes ahead of issuing the RFP. According to AI-25 a local marketing and design firm, doing business with any governmental agency is basically a “good ole boys’ network”, a colloquial term referring to an informal network of individuals made privy to information or access that places them at a competitive advantage. Because of this group, he believes minorities and small business people struggle to get the attention they deserve. These experiences are echoed by AI-26, a Nonminority Female owned engineering firm who states that affiliation with industry groups such as the Associated General Contractors allowed her introductions to local government officials and administrators that allowed her to build relationships that have assisted her in gaining access to this network. AI-28, a current vendor with MNAA states that she first obtained business at MNAA when she was able to meet an MNAA executive at an event, where, upon recognizing her ability he referred her to the MNAA Communications Department as a qualified vendor.

### Survey Results<sup>9</sup>:

- 43 Percent of survey respondents believe in the presence of an “informal network” of contractors that do business with MNAA. This includes 40% of Nonminority Females, 75.5% of Black Americans and 40% of Hispanic American respondents.
- 40.3% of those who believe in the presence of informal networks say their exclusion from this network has prevented them from winning contracts with MNAA.

### Key Quotes:

- “A prime told me, ‘we were told our chances would be better if we have a specific contractor on our team.’”
- “I have attempted to be part of the bid at every opportunity but have not been included on a single bid team.”
- AI-11 felt he would have a better chance to land a contract if “there were more opportunities to build relationships with MNAA purchasing managers,” and “if the owner is closer to the people who run Metro and MNAA diversity offices.”

## 2. Marketplace Discrimination

While some participants believed they had not experienced any discrimination, several business owners made subtle references to perceptions about race that could be made about them because of their race or gender status. AI-27, an MBE, who came to America as a refugee as a young child, also noted how “he feels

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<sup>9</sup> The full survey questions and responses are in Appendix H.

lucky to be in a white-collar business” because often “blue-collar companies or (vendors) with an accent complain about feelings of discrimination.” Similarly, he pointed to how “he speaks English like a native Tennessean” as an advantage in navigating the business community. AI-26, a Nonminority Female, believes that her status as an Army veteran helps garner respect from the males who dominate her industry.

Similarly, AI-5 a minority retailer at MNAA, suggested that a lack of understanding of the RFP process or a lack of adequate capital could leave potential participants “vulnerable to inadvertent discrimination.” AI-4, attributed slow pay from some agencies in the market to direct discrimination. He said he currently has invoices outstanding from the State dating back to 2015. AI-4 says, “They see me as different” and in doing business with banks, he believes the world sees him as a minority businessperson instead of a successful businessperson.

Minority vendor AI-17 described a series of circumstances that led her to end the relationship she had with one of the major retailers in the airport. Because of airport security, she could not readily visit the shops where her products were being sold to get inventory. The retailer would have expired product in their display, would not notify AI-17 when product was low, or would have a competitor’s product in their display. She had to rely on friends or family flying out of the airport or flying out herself to get reports. She ended the relationship in July.

Additionally, some nonminority firms felt that they were being “reverse discriminated” against, which could support feelings of racial animosity. To AI-14, he was not aware of any discrimination, “unless it’s reverse.” He said minority subcontractor “quotas” have often forced him to have to make hires he did not need in order to win a bid.

### Survey Results

- 58 percent of survey respondents either “Agree” or “Strongly Agree” that nonminority contractors only use small or diverse firms when required by MNAA. This includes over 30% of nonminority firms, 83% of all Black American respondents, 66% of all Hispanic Americans and over half of all Nonminority Females
- 36.3 percent of respondents either “Agree” or “Strongly Agree” that small and diverse firms are seen as “less competent” than nonminority firms. This expands to over 25% of Nonminority Females and over 75% of Black Americans
- Only 18% of all survey respondents, but 41% of Black American respondents believe they have experienced discriminatory behavior from the Nashville private sector.

### Key Quotes:

- “If not for my niche industry ... I could see lots of difficulty doing business with MNAA and other government agencies.”
- “Color matters. If I were a white male vendor for 10 years, I would get a better response.”
- “This world view severely impacts the way they do business... They see me as different.”
- “I guess the opportunities are less for black business owners”

### 3. Business Fronts and Pass-Throughs

The barriers to doing business with MNAA aligned primarily with process and economic factors. However, given the competitive climate and rigors of the RFP and bidding processes, some vendors have adopted strategies to circumvent diversity goals designed to increase opportunities for minority owned and Nonminority Female owned businesses.

One such way is the use of “front” and “pass-through” businesses, a form of certification fraud where illegitimate M/WBE businesses are partnered to win projects. Hispanic American subcontractor AI-1 said that the practice is an open secret. He pointed to business owners who subcontract shell companies set up in the names of qualifying family members.

As mentioned previously, AI-14 admitted to taking on an unneeded hire to meet the 5 percent minority requirement. Nonminority male prime contractor AI-7 said that MNAA is complicit in aiding vendors in this practice by encouraging them. However, AI-1 warns, “you’re at the mercy of the general contractor hoping they do the right thing.” In an example of how this practice can negatively impact MBE or DBE subcontractors, AI-10 described what happened when he was hired to help win a bid outside MNAA. “I was dropped from the bid after the contractor used my DBE status to win the project.”

This was also, inadvertently raised as a flag in the study team interviews, where in several cases, certified M/WBE firms provided nonminority male representatives for our interviews because they held management responsibility or a stake in the business.

#### Key Quotes

- “It’s known in the industry that the general contractors ... they have certain ways to get around the system.”
- “I’ve heard in the past that there was a general contractor they claimed had used a small business, WBE or MBE designation. It turned out that it was the general contractor’s wife, so it was a disadvantage to other firms.”
- “Occasionally, you have to hire a gate security guard when you don’t need one,”  
“If you’re chasing a project and they’ve got an MBE and WBE percentage they want to hit, they point blank tell you how to do it and you’ve got to be creative in putting your team together,”

### 4. Other Barriers to Participation

- Prompt Payment
- Oversight and Monitoring
- Outreach
- Navigating the MNAA website

**FINDING 11: M/WBE NON-CAR RENTAL CONCESSION REVENUE**

MBEs received \$36.8 million during the Study Period, 13.05% of the Restaurant concession revenue, while Nonminority Female owned firms received \$105,381, 0.04% of the Restaurant concession revenue. M/WBEs received 13.09% of Restaurant concession revenue (Table 8).

MBEs received \$24.0 million during the Study Period, 14.55% of the Retail concession revenue, while Nonminority Female owned firms received \$64,859, 0.04% of the Retail concession revenue. M/WBEs received 14.59% of Retail concession revenue (Table 8).

MBEs received \$16.3 million during the Study Period, 12.69% of the Services concession revenue, while Nonminority Female owned firms received \$803,450, 0.63% of the Services concession revenue. M/WBEs received 13.32% of Services concession revenue (Table 8).

Overall M/WBEs received 13.57% of concession revenue dollars from FY 2014-FY2019.

*Table 8: Summary of Non Car Rental Concession Revenue by Concession Category  
(Using revenue Dollars FY2014-FY2019)  
MNAA Disparity Study*

<b>Business Ownership Classification</b>	<b>Restaurants</b>	<b>Retail</b>	<b>Services</b>	<b>TOTAL</b>
	(\$)	(\$)	(\$)	(\$)
Black American	\$36,811,362	\$22,425,514	\$16,288,462	\$75,525,337
Asian American	\$ -	0	\$25,262	\$25,262
Hispanic American	\$ -	\$1,657,129	\$0	\$1,657,129
Native American	\$ -	0	\$ -	\$0
<b>TOTAL MINORITY</b>	<b>\$36,811,362</b>	<b>\$24,082,643</b>	<b>\$16,313,724</b>	<b>\$77,207,728</b>
Nonminority Female	\$105,381	\$64,859	\$803,450	\$973,691
<b>TOTAL M/WBE</b>	<b>\$36,916,743</b>	<b>\$24,147,502</b>	<b>\$17,117,174</b>	<b>\$78,181,419</b>
Non-M/WBE	\$245,137,996	\$141,364,296	\$111,408,193	\$497,910,484
<b>TOTAL FIRMS</b>	<b>\$282,054,739</b>	<b>\$165,511,798</b>	<b>\$128,525,367</b>	<b>\$576,091,903</b>
<b>Business Ownership Classification</b>	<b>Restaurants</b>	<b>Retail</b>	<b>Services</b>	<b>TOTAL</b>
	(%)	(%)	(%)	(%)
Black American	13.05%	13.55%	12.67%	13.11%
Asian American	0.00%	0.00%	0.02%	0.00%
Hispanic American	0.00%	1.00%	0.00%	0.29%
Native American	0.00%	0.00%	0.00%	0.00%
<b>TOTAL MINORITY</b>	<b>13.05%</b>	<b>14.55%</b>	<b>12.69%</b>	<b>13.40%</b>
Nonminority Female	0.04%	0.04%	0.63%	0.17%
<b>TOTAL M/WBE</b>	<b>13.09%</b>	<b>14.59%</b>	<b>13.32%</b>	<b>13.57%</b>
Non-M/WBE	86.91%	85.41%	86.68%	86.43%
<b>TOTAL FIRMS</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

Source: B2G



**FINDING 12: SUMMARY OF DISPARITY ANALYSIS FOR NON CAR RENTAL CONCESSIONS**

The table below indicates those M/WBE groups where a statistically significant disparity was found in non-car rental concessions. Black American owned concessions were over utilized in Restaurants and Retail.

*Table 9: Summary of Statistically Significant Disparity Outcomes of Underutilization of MWBEs  
MNAA Disparity Study*

	Restaurants	Retail	Services
Black American			X
Asian American	X	X	X
Hispanic American	X	X	X
Native American	X	X	X
Nonminority Female	X	X	X

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## B. COMMENDATIONS

Within the Disparity Study process, GSPC is careful to look for opportunities to highlight the successes and advancements being made through equitable processes and diverse contracting initiatives. The commendations below are areas where GSPC believes MNAA and its staff should be noted for their contributions to inclusion and equity.

### COMMENDATION 1: MNAA STAFF

Several interviewees and Study participants offered glowing reviews for MNAA staff for keeping the lines of communication open before and during the RFP and bidding processes. There were very few complaints about the way procurement information was distributed to prospective and/or returning bidders except there was some concern that phone calls were not returned in a timely manner. AI-12 called the airport a “sophisticated purchaser of services ... that has been supportive and understanding with firms that are submitting for services.” MNAA was also commended by several respondents about their “intentionality” and commitment to diversity and inclusion.

### COMMENDATION 2: SUPPORTIVE SERVICES

MNAA currently partners with the Nashville Business Incubation Center (“NBIC”) to provide supportive services for DBEs. NBIC also services the MNAA Mentor-Protégé program and takes referrals from MNAA to service DBE firms. They report that MNAA has been an excellent partner and they look forward to continued work with the airport.

### COMMENDATION 3: MNAA’S ACDBE REPRESENTATION.

ACDBE’s have accounted for about 30% of MNAA’s concessions, which already indicates a successful program. The percentage of ACDBE’s has increased under the new concessions program to 45%. This is likely second in the country only to the 50-55% achieved at Hartsfield Jackson Atlanta International Airport.

It should be noted that ACDBE’s did mention that they should be trained separately from other vendors.

## C. RECOMMENDATIONS

### RECOMMENDATION 1: M/WBE GOALS

The findings of this Study indicate that MNAA should continue to implement programs to promote the utilization of minority and Nonminority Female owned businesses. GSPC specifically recommends that the federal Disadvantaged Business Enterprise (“DBE”) Program continue to be fully administered to all race/ethnicity/gender/gender categories.

For non-federally funded projects, GSPC recommends the continuation of MNAA's MWBE program, but that any SBE elements should be administered on the prime level as an SBE reserve rather than combined with the MWBE subcontractor program. SBE subcontracting goals, used in with DBE or MWBE goals may work against DBE and MWBE participation and function as a non-MWBE goal.

Subcontracting goals should be set on a contract-by-contract basis. In addition, MNAA should set aspirational goals for each work category. Aspirational goals are an internal measurement or benchmark of where MNAA's utilization of MWBE firms should be. The aspirational goals should be based upon the Availability of firms in the Relevant Market representing the anticipated achievement of both prime and subcontractor MWBEs.

As noted in the above Legal Finding the continued disparities identified in the Study provide the necessary factual basis for continued use of race- and gender-conscious remedies. In order to comply with the narrow tailoring requirement discussed in the case law, the remedies implemented (or continued) by MNAA as a result of this Study must be limited to the minority groups for which underutilization has been statistically identified.

In order to effectively administer an M/WBE goals program, MNAA must begin to track all subcontractors, both M/WBEs and non-MWBEs whether or not there are goals. This will enable MNAA to measure the full extent that it is utilizing MWBE subcontractors and the percentage of subcontractors that are MWBEs.

In Appendix J, GSPC performed an analysis of the State of Tennessee to determine whether there was sufficient evidence for MNAA to continue its statewide program. GSPC found that there was sufficient evidence to support MNAA keeping the current Statewide Program Area, which includes continuing to certify firms throughout the State of Tennessee.

### **RECOMMENDATION 2: STRENGTHEN THE EXISTING SMALL BUSINESS RESERVE PROGRAM.**

MNAA has a small business ("SBE") prime reserve program, but it is not being fully utilized. This program is an excellent tool for increasing minority and Nonminority Female owned business participation as prime contractors.

It is important to note that the Small Business Reserve program recommended herein are race- and gender-neutral. As discussed in the Legal Analysis chapter (Section D.7.), good faith consideration of race-neutral (and/or gender-neutral) alternatives is an important part of the narrow tailoring requirement.<sup>10</sup>

### **RECOMMENDATION 3: BONDING AND INSURANCE**

MNAA should review its bonding and insurance requirements to reduce the burden on small, minority and Nonminority Female owned businesses. A comprehensive effort should be undertaken to ensure that MNAA is not requiring limits which are higher than necessary to protect MNAA's interests.

<sup>10</sup> See Croson, 488 U.S. at 507-08; see also Sherbrooke Turf, Inc. v. Minnesota DOT, 345 F.3d 964, 971-72 (8<sup>th</sup> Cir. 2003).

Specifically, GSPC found that MNAA has given no bond waivers. Therefore, it recommends that MNAA consider bond waivers for small projects.

Though this recommendation is anticipated to have a positive effect on M/WBE firm participation, it is facially a race- and gender-neutral remedy, and thus comports with the narrow tailoring requirement discussed above relating to the need for good faith consideration or race- and gender-neutral alternatives before implementing remedies which are race- or gender-conscious.<sup>11</sup>

#### **RECOMMENDATION 4: GREATER PROJECT OVERSIGHT**

GSPC received comments that once firms are on the job, there is a breakdown of oversight to make sure that prime contractor properly administering the work of subcontractors. Bad behavior on job sites and payments were specifically mentioned. GSPC recommends increasing periodic site visits and follow up with subcontractors by the Business Diversity department.

#### **RECOMMENDATION 5: DEVELOP FORECASTING PLAN**

In addition to “Business Taking Off” where upcoming solicitations can be viewed, MNAA should consider reviewing all its anticipated expenditures for each upcoming fiscal year as part of its budget approval process, based on the anticipated expenditures of each department. M/WBE spending targets could be set based on M/WBE availability to perform the work anticipated on various projects. Anticipated expenditures could be made public as a forecast which would allow M/WBE firms to understand early on what projects are anticipated in the coming fiscal year and to prepare to compete for them.

Planning plays an important role in establishing and maintaining effective remedial programs. This begins with understanding what services and goods MNAA will be buying in the year to come.

- **Targeted Outreach-** Annual forecasting will enable the contract compliance personnel to target firms that can do the work for notification of the work;
- **Encourage Teaming-** Knowing ahead of time what work will be presented in the coming year will give room for contract compliance to schedule networking events and encourage firms to team. It also gives more time for mandatory pre-bid conferences where potential prime contractors can meet potential subcontractors;
- **Supportive Services -** Annual forecasting will allow MNAA to provide supportive services well in advance of the bid issuance, if needed. Supportive services may be offered internally in coordination with other agencies, the Small Business Administration bonding program, and the Small Business Development Centers. This is particularly important on MNAA’s large capital projects to insure diverse supplier participation.

Again, though this Recommendation is anticipated to have a positive effect on M/WBE firm participation, it is facially a race- and gender-neutral remedy, and thus comports with the narrow tailoring requirement discussed above relating to the need for good faith consideration or race- and gender-neutral alternatives before implementing remedies which are race- or gender-conscious.<sup>12</sup>

<sup>11</sup> See *infra*, Recommendation 2.

<sup>12</sup> See *infra*, Recommendation 2.

### III. LEGAL ANALYSIS

#### A. Introduction to Legal Analysis

The following legal analysis begins with an overview of the Federal DBE Program, with important structural features and implementation considerations, including the significance of disparity studies in implementation. Summarily stated, disparity studies can provide historical context regarding government procurement practices, an overview of the challenges a governmental entity has faced and continues to face in seeking minority and/or female inclusion in procurement awards, and a contemporary snapshot of procurement practices.

There is also, however, an important historical *legal* basis for the advent of disparity studies in the first instance, including in the federal DBE context. The bedrock judicial decisions from the United States Supreme Court anticipating and inviting increased use of disparity studies are therefore discussed early in the following legal analysis, before digging deeper into the legal considerations and related evidentiary requirements for sustaining a DBE/MBE/WBE program in the face of a challenge on constitutional grounds.

Included in the subsequent expanded legal analysis are significant decisions from the United States Court of Appeals for the Sixth Circuit, as these decisions demonstrate the continuing significance and vitality of the featured Supreme Court precedent, and also highlight the legal foundation under which any challenge to the federal DBE program (and/or local MBE/WBE program) applied by Metropolitan Nashville Airport Authority (“MNAA”) will be analyzed. Though there are certain legal nuances differentiating DBE court decisions and MBE/WBE decisions, there is significant overlap in the applicable analyses, allowing for court guidance to carry over to the other.<sup>13</sup>

#### B. Federal DBE Program and State Implementation

MNAA is required by federal law to establish and implement a Disadvantaged Business Enterprise Program (“DBE”) when using federal transportation funds. It is important to note why DBE programs exist today. The most recent iteration of the federal DBE program is the 2015 reauthorized Fixing America’s Surface Transportation Act (“FAST Act”), which authorizes the U.S. Department of Transportation (“US DOT”) to distribute funds to states for transportation-related projects.<sup>14</sup>

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<sup>13</sup> As shown below, the case law in the DBE context is significantly more settled at present, with federal DBE programs routinely surviving facial constitutional challenges and “as applied” challenges. *Infra*.

<sup>14</sup> *Associated General Contractors of America, San Diego Chapter v. California D.O.T.*, 713 F.3d 1187, 1190 (9<sup>th</sup> Cir. 2013). “The Act . . . [provides] for race- and gender-based preferences in the transportation contracting industry in response to pervasive and ongoing discrimination and directs the Secretary of Transportation to ensure that 10% of funds distributed to states and municipalities are expended on “disadvantaged business enterprises.” *Id.* It does not however, “establish a uniform national affirmative action program,” but commands that each State receiving federal funds “implement a preference program that complies with federal regulations.” *See also* 49 C.F.R. § 26.1 et seq.

Thus, because MNAA receives federal funding from the US DOT, it is mandated and authorized to implement a DBE program. MNAA is guided in the crafting of its DBE program by Part 26 of the Code of Federal Regulations (C.F.R.).

Under § 26.45(c), the first step in goal setting is to determine “a base figure for the relative availability of DBEs.” 49 C.F.R. § 26.45(c). Once this is done, the regulation requires the recipient of funds to “examine all of the evidence available in . . . [its] jurisdiction to determine what adjustment, if any, is needed to the base figure to arrive at . . . [its] overall goal,” and sets forth an explanation of the term “evidence” and the quality of such that is acceptable. 49 C.F.R. § 26.45(d).<sup>15</sup>

After a state or “local” goal is established, the DBE plan must be submitted to US DOT for approval, with explanations from the state as to how it arrived at the goal. 49 C.F.R. § 26.45(f); Northern Contracting Inc. v. Illinois, 417 F.3d 715, 718 (7<sup>th</sup> Cir. 2007). In Part 26.51, regulations provide a mandate that the recipient must “meet the maximum feasible portion of . . . [its] overall goal by using race-neutral means of facilitating race-neutral DBE participation,” along with providing examples of what is meant by “race-neutral means.” 49 C.F.R. § 26.51(a)-(d).<sup>16</sup>

If a governmental entity cannot meet its overall DBA solely through the use of race- and gender-neutral means, it is permitted to employ race-and gender-conscious measures as part of its implementation – in a manner which satisfies the relevant regulatory and legal standards set forth herein. See 49 C.F.R. § 26.51(c).

Of note, the regulations define what a DBE is (in § 26.5), and provide for a “rebuttable presumption” that “citizens of the United States (or lawfully admitted permanent residents) who are woman, Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Subcontinent Asian Americans, or other minorities found to be disadvantaged by the SBA, are socially and economically disadvantaged individuals.” 49 C.F.R. § 26.67.<sup>17</sup>

### C. Historical Development of the Relevant Law Regarding DBE/MBE/WBE Programs

The outgrowth of disparity studies was in large measure a response to constitutionally based legal challenges made against federal, state, and local minority business enterprise programs enacted to remedy past or present discrimination (whether real or perceived). Such studies were effectively invited by the

<sup>15</sup> In §26.45, regulations require recipients who “receive federal funding . . . [to] establish overall goals for disadvantaged business participation in federally assisted contracts,” while specifically denying to them in subpart (b) the ability to “rely on either the 10 percent national goal, . . . [their] previous overall goal or past DBE participation rates in. . . [their] program without reference to the relative availability of DBEs in...[their] market.” 49 C.F.R. 26.45. See Gross Seed Company v. Nebraska Department of Roads, 345 3d 964 (8<sup>th</sup> Cir. 2003).

<sup>16</sup> See Associated General Contractors v. California D.O.T., 713 F.3d at 1191.

<sup>17</sup> Part 26.67 provides that a Caucasian male can qualify for DBE status if the individual can demonstrate that he is in fact socially and economically disadvantaged. Id. § 26.67(d).

United States Supreme Court in rendering its seminal decision in City of Richmond v. J. A. Croson Company, 488 U.S. 469; 109 S. Ct. 706; 102 L. Ed. 2d 854 (1989), and subsequent judicial decisions have drawn a direct line between Croson and the utilization of disparity studies. See, for example, Adarand Constructors, Inc. v. Slater (Adarand III), 228 F.3d 1147, 1172-73 (10th Cir. 2000) (“Following the Supreme Court's decision in Croson, numerous state and local governments have undertaken statistical studies to assess the disparity, if any, between availability and utilization of minority owned businesses in government contracting.”).

Disparity studies have therefore become an important tool for governmental entities in deciding whether to enact minority business programs or legislation, and in justifying existing programs or legislation in the face of constitutional challenge. To better understand the proper parameters of such programs, one must understand their judicial origin.

### **1. The Supreme Court’s Decision in City of Richmond v. Croson**

To fully appreciate the usefulness of disparity studies for development and defense of minority business programs, an overview of the Croson decision is helpful.

Laws that, on their face, favor one class of citizens over another, may run afoul of the Equal Protection Clause of the Fourteen Amendment. DBE/MBE/WBE programs and legislation are among the types of laws invoking such concerns. Depending on the nature of the differentiation (e.g., based on race, ethnicity, gender), courts evaluating the constitutionality of a minority business program will apply a particular level of judicial scrutiny. As explained at greater length below, race-based programs are evaluated under a “strict scrutiny” standard, and gender-based programs may be subject to strict scrutiny or under a less-rigorous “intermediate scrutiny” standard, depending on the federal circuit within which the entity sits.

In its Croson decision, the Supreme Court ruled that the City of Richmond’s Minority Business Enterprise (hereinafter “MBE”) program failed to satisfy the requirements of “strict scrutiny.” “Strict scrutiny” review involves two co-equal considerations: First, the need to demonstrate a compelling governmental interest; Second, implementation of a program or method narrowly tailored to achieve/remedy the compelling interest. In Croson, the Supreme Court concluded that the City of Richmond failed to show that its minority set-aside program was “necessary” to remedy the effects of discrimination in the marketplace.

In fact, the Court found that the City of Richmond had not established the necessary factual predicate to infer that discrimination in contracting had occurred in the first place. The Court reasoned that a mere statistical disparity between the overall minority population in Richmond (50 percent African-American) and awards of prime contracts to minority owned firms (0.67 percent to African-American firms) was an irrelevant statistical comparison and insufficient to raise an inference of discrimination.

Addressing the disparity evidence that Richmond proffered to justify its MBE program, the Court emphasized the need to distinguish between “societal discrimination,” which it found to be an inappropriate and inadequate basis for social classification, and the type of identified discrimination that can support and define the scope of race-based relief.

Specifically, the Court opined that a generalized assertion of past discrimination in an entire industry provided no guidance in determining the present scope of the injury a race-conscious program seeks to remedy, and emphasized that “there was no direct evidence of race discrimination on the part of the City in letting contracts or any evidence that the City’s prime contractors had discriminated against minority owned subcontractors.”<sup>18</sup>

Accordingly, the Court concluded there was no prima facie case of a constitutional or statutory violation by anyone in the construction industry that might justify the MBE program. Justice O'Connor nonetheless provided some guidance on the type of evidence that might indicate a proper statistical comparison:

[W]here there is a significant statistical disparity between the number of qualified minority contractors willing and able to perform a particular service and the number of such contractors actually engaged by the locality or the locality's prime contractors, an inference of discriminatory exclusion could arise. [Croson, 488 U.S. at 509]

Stated otherwise, the statistical comparison should be between the percentage of MBEs in the marketplace qualified to do contracting work (including prime contractors and subcontractors), and the percentage of total government contract awards (and/or contractual dollars paid) to minority firms. The relevant question among lower federal courts has been which tools or methods are best for such analysis; a matter addressed in the detailed discussion of statistical comparison provided below.

Additionally, the Court in Croson stated that identified anecdotal accounts of past discrimination also could provide a basis for establishing a compelling interest for local governments to enact race-conscious remedies. However, conclusory claims of discrimination by MNAA officials, alone, would not suffice, nor would an amorphous claim of societal discrimination, simple legislative assurances of good intention, or congressional findings of discrimination in the national economy. In order to uphold a race- or ethnicity-based program, the Court held, there must be a determination that a strong basis in evidence exists to support the conclusion that the remedial use of race is necessary.

Regarding the second prong of the strict scrutiny test, the Croson Court ruled that Richmond’s MBE program was not narrowly tailored to redress the effects of discrimination. First, the Court held that Richmond’s MBE program was not remedial in nature because it provided preferential treatment to minorities such as Eskimos and Aleuts, groups for which there was no evidence of discrimination in Richmond. Thus, the scope of the City’s program was too broad.

Second, the Court ruled that the thirty percent (30%) goal for MBE participation in the Richmond program was a rigid quota not related to identified discrimination. Specifically, the Court criticized the City for its lack of inquiry into whether a particular minority business, seeking racial preferences, had suffered from the effects of past discrimination.

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<sup>18</sup> Croson, 488 U.S. at 480.



Third, the Court expressed disappointment that the City failed to consider race-neutral alternatives to remedy the under-representation of minorities in contract awards. Finally, the Court highlighted the fact that the City's MBE program contained no sunset provisions for a periodic review process intended to assess the continued need for the program.<sup>19</sup>

Subsequent to the decision in Croson, the Supreme Court and the federal Circuit Courts of Appeal have provided additional guidance regarding the considerations, measurements, information, and features surrounding a DBE/MBE/WBE program which will assist in protecting the program from constitutional challenge under a strict scrutiny analysis. These recommendations have in many respects provided a roadmap of sorts for useful disparity studies and are therefore discussed in greater detail below.

## 2. The Supreme Court's Decision in Adarand v. Peña and Subsequent Circuit Court Proceedings

Six years after its decision in Croson, the Supreme Court was again confronted with an equal protection challenge to a minority business program, in Adarand Constructors, Inc. v. Peña, 515 U.S. 200 (1995) (Adarand II). This time, however, a DBE program enacted by the federal government was at issue, thus implicating the Fifth Amendment rather than the Fourteenth Amendment analysis required for the local (state) program in Croson.

Reversing the decision of the Tenth Circuit, the Supreme Court ruled that federal programs are not reviewed for constitutionality under a more lenient standard (as had been indicated in some prior Supreme Court opinions); strict scrutiny is likewise to be applied to such programs.<sup>20</sup> Because the district court and the Tenth Circuit had not applied the proper standard of review, the Supreme Court remanded the case back to the district court to apply strict scrutiny to the program, consistent with Croson. Id.

On remand, the district court (D. Colo.) essentially ruled that no program can meet the strict scrutiny standard --- i.e., it is "fatal in fact." The Tenth Circuit disagreed, upholding the federal program even under a strict scrutiny standard, finding a compelling state interest, and the required narrow tailoring to achieve such compelling interest.<sup>21</sup>

Consistent with Croson and subsequent opinions, the Tenth Circuit described its task regarding the compelling state interest as follows:

[O]ur inquiry necessarily consists of four parts: First, we must determine whether the government's articulated goal in enacting the race-based measures at issue in this case is appropriately considered a "compelling interest" under the governing case law; if so, we must then set forth the standards under which to evaluate the government's evidence of compelling interest; third, we must decide whether the evidence presented by the government is sufficiently strong to meet its initial burden of demonstrating the compelling interest it has articulated; and finally, we must examine whether the challenging party has

<sup>19</sup> Croson, 488 U.S. at 500.

<sup>20</sup> Id. at 222-26.

<sup>21</sup> Adarand Constructors, Inc. v. Slater, 228 F.3d 1147 (10<sup>th</sup> Cir. 2000) (Adarand III).

met its ultimate burden of rebutting the government's evidence such that the granting of summary judgment to either party is proper. We begin, as we must, with an inquiry into the meaning of “compelling interest.” [Adarand III, 228 F.3d at 1164]

If satisfied that the compelling state interest prong had been met, the court then needed to determine whether the federal DBE program was narrowly tailored, as required under Croson (and strict scrutiny jurisprudence generally).<sup>22</sup>

The court first found that the government’s proffered interest – “remedying the effects of racial discrimination and opening up federal contracting opportunities to members of previously excluded minority groups” – met the standard.<sup>23</sup>

As for the “strong basis in evidence” that remedial action was necessary, the court in Adarand III found that the government established that minority contractors faced significant discriminatory *barriers to entry* into the disbursement programs, such as a classic “old boy” network of contractors, denial of access to capital, and denial of or difficulty in obtaining union membership to assist in access.<sup>24</sup> The government also demonstrated, the court found, that existing minority contractors faced *barriers to competition*, owing to various methods of “discrimination by prime contractors, private sector customers, business networks, suppliers, and bonding companies[.]”<sup>25</sup>

In support of its position, the government produced statistical and anecdotal evidence, both direct and circumstantial, taken from local disparity studies which demonstrated under-utilization of minority subcontractors (described in more detail below), and the effect on utilization rates when affirmative action programs or efforts were discontinued for one reason or another.<sup>26</sup>

The Adarand III court went on to discuss at length its reasoning that the government also adequately demonstrated that its program was narrowly tailored to achieve the compelling interest discussed previously.<sup>27</sup> In sum, the court found that the government satisfactorily met the following important factors: “the necessity for the relief and the efficacy of alternative remedies; the flexibility and duration of the relief, including the availability of waiver provisions; the relationship of the numerical goals to the relevant labor market; and the impact of the relief on the rights of third parties.”<sup>28</sup>

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<sup>22</sup> Id. at 1176-77.

<sup>23</sup> Id. at 1164-65 (“[W]e readily conclude that the federal government has a compelling interest in not perpetuating the effects of racial discrimination in its own distribution of federal funds and in remedying the effects of past discrimination in the government contracting markets created by its disbursements.”).

<sup>24</sup> 228 F.3d at 1168-69.

<sup>25</sup> Id. at 1170-72.

<sup>26</sup> Id. at 1174-75.

<sup>27</sup> 228 F.3d at 1176-1187.

<sup>28</sup> Id. at 1177. These remedial concepts are covered in greater detail below.

The case was therefore returned to the district court for further proceedings “consistent with this opinion.”<sup>29</sup>

### 3. The Sixth Circuit’s Decision in *Associated General Contractors v. Drabik*

Having the benefit of the Supreme Court’s thinking in *Croson* and *Adarand*, the Sixth Circuit addressed the constitutionality of the State of Ohio’s minority business enterprise statute (“MBEA”) in *Associated Gen. Contrs. of Ohio, Inc. v. Drabik*, 214 F.3d 730, 735 (6th Cir. 2000), an opinion which remains among the most significant M/WBE appellate decisions in the Circuit covering the City of Chattanooga.

In *Drabik*, the Court of Appeals affirmed the district court’s finding that Ohio’s MBEA was not narrowly tailored to remedy past discrimination. The court found the statute lacked narrow tailoring because (1) the MBEA suffered from under inclusiveness and over inclusiveness, (lumping together racial and ethnic groups without identified discrimination); (2) the MBEA lacked a sunset date; and (3) the state failed to provide specific evidence that Ohio had considered race-neutral alternatives before adopting the plan to increase minority participation.<sup>30</sup>

Specifically, the court ruled that the State of Ohio failed to satisfy the strict scrutiny standard to justify the state’s minority business enterprise act by relying on statistical evidence that did not account for which firms were qualified, willing and able to perform on construction contracts.<sup>31</sup> The court stated that “although Ohio’s most compelling statistical evidence compares the percentage of contracts awarded to minorities to the percentage of minority owned businesses...the problem is that the percentage of minority owned businesses in Ohio (7% of 1978) did not take into account which were construction firms and those who were qualified, willing and able to perform on state construction contracts.”<sup>32</sup> Although this was more data than was submitted in *Croson*, it was still insufficient under strict scrutiny, according to the court.

*Drabik* thus underscores that M/WBE Programs must be designed so that the benefits of the programs are targeted specifically toward those firms that faced discrimination in the local marketplace. To withstand a challenge, relief must extend only to those minority groups for which there is evidence of discrimination.<sup>33</sup>

Finally, expressly relying on *Croson*, the *Drabik* court cited the requirement that there not only be a strong basis in evidence for a conclusion that there has been discrimination, but also for a conclusion that the particular remedy is made necessary by the discrimination. In other words, there must be a “fit” between past/present harm and the remedy.<sup>34</sup>

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<sup>29</sup> *Id.*

<sup>30</sup> *Drabik*, 214 F.3d 739.

<sup>31</sup> *Id.* at 736.

<sup>32</sup> *Id.*

<sup>33</sup> See *Drabik*, 214 F.3d at 735.

<sup>34</sup> *Id.* at 730 (“outdated evidence does not reflect prior unremedied or current discrimination”).

As noted, decisions by the Sixth Circuit are particularly important and relevant when addressing/evaluating the DBE program implementation by MNAA and any procurement not involving federal spending for which M/WBE considerations arise.

#### **D. Conclusion**

The Croson decision, handed down nearly 30 years ago, continues to cast a long shadow over DBE/MBE/WBE programs and legislation. Croson certainly changed the face of remedial programs, but it merely set the standards to be applied, leaving open questions regarding the acceptable or proper methodologies for achieving such standards. There is guidance in Croson itself, to be sure, and significant refinement by the Supreme Court and the federal Circuit Courts of Appeal in its aftermath, but there nonetheless remains significant uncertainty and fluidity in the law governing such programs to this day.

## IV. PURCHASING PRACTICES, POLICIES, AND PROCEDURES

The objective of the “Purchasing Practices, Policies, and Procedures” chapter of this Study is to review the stated policies and practices of MNAA in relation to purchasing and programs to enhance inclusion of minority, Nonminority Female, and DBEs.

It is well understood that where there is policy, there is often room for interpretation and discretionary practice. These areas will be examined closely, as well, for any effect they may have on the overall ability of DBEs as well as Small, Minority and Nonminority Females Business Enterprises (“MWBE”) to obtain work with MNAA.

### A. Document Review and Personnel Interviews

Griffin & Strong, P.C. (“GSPC”) reviewed the Tennessee Code Annotated, past and present MNAA DBE/MWBE program documents, disparity studies, MNAA purchasing manuals, MNAA bid and proposal solicitations, past and present MNAA financial statements, legal memoranda, and related documents. GSPC conducted policy interviews in February and April of 2019 with officials that engage regularly in purchasing:

- Development & Engineering (D&E)
- Legal Affairs
- Business Diversity Development (BDD)
- Purchasing
- Maintenance

### B. Overview of MNAA Purchasing

MNAA was established in 1970 and owns and operates Nashville International Airport (BNA) and John C. Tune Airport (JWN). In 1970 the Airport Authority was created under the Metropolitan Airport Authorities Act Section 42-4-101. At one time, MNAA was a department of the City of Nashville. Now MNAA has its own procurement code under the Airport Authorities Act. MNAA adopted its current procurement policy in 2017.<sup>35</sup> The 2017 MNAA procurement policy did not change BDD policy and operations.

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<sup>35</sup> MNAA, Procurement Procedures Manual, 2017; MNAA, Procurement Policy, effective February 2017.

**1. Level of Authority and Contract Threshold**

The table below shows the level of procurement authority for MNAA by contract threshold.

*Table 10: Contract Threshold and Authority*

*MNAA Disparity Study*

<b>Contract Threshold</b>	<b>Procurement Authority</b>
Authority to approve purchases \$1-\$10,000; or order up to \$100,000 against existing contract	Department Director (or designee)
All purchases over \$10,000-\$99,999	Chief procurement officer or designee
All purchases over \$100,000	President
All purchases/contracts over \$500,000 annually, or with Contract Terms greater than eight years or which materially affect a public space	Board

Source: MNAA Procurement Procedures Manual, page 9.

**2. Procurement Methods**

The table below shows the method of procurement by contract threshold as summarized in the MNAA procurement manual, with notes on DBE and MWBE issues.

*Table 11: Contract Threshold and Procurement Method*

*MNAA Disparity Study*

<b>Price Threshold</b>	<b>Method of Procurement</b>	<b>Notes</b>
Small purchases up to \$10,000	Use the P-card where feasible or enter requisition in AX (the Microsoft Enterprise Resource System) or submit iRFQ to Procurement	Does not track MWBE participation on P cards.
Small purchases \$10,000 to \$50,000	Complete iRFQ for at least 3 vendors or have Procurement obtain quotes	Attempt to receive quotes from MWBEs; DBE/MWBE participation from BDD
Formal competitive purchases (\$50,000 and over)	Bids exceeding the threshold must be purchased through existing MNAA contract, existing cooperative agreement for formal solicitation process	DBE/MWBE participation from BDD

Source: Source: MNAA Procurement Procedures Manual, pages 9-10.

The following methods of procurement are utilized by MNAA:

- Purchase Orders (PO) are required for any scopes of work not procured through a formal solicitation process. The informal bid threshold is \$50,000. For construction bids, the MNAA policy is to solicit three quotes. The MNAA practice is to try to ensure that one or more of those quotes is from an MWBE.
- Invitations to Bid (ITB) are used where the criteria are primarily price and specifications and the awards are to the responsive and responsible bidder with the lowest price. Tennessee law allows MNAA to use contracts that are competitively procured by other government entities or cooperative groups.<sup>36</sup>
- Requests for Proposal (RFP) are used for goods and services that are evaluated on price and other criteria that include qualifications and experience. MNAA has used RFPs for goods and services, Design-Build, Construction Manager At-Risk, Progressive Design-Build.<sup>37</sup> (MNAA has rarely used Construction Manager at Risk.) Design build and progressive design build are seeing increased use in the MNAA's \$1.2 billion BNA Vision projects, a five to seven-year BNA expansion plan.<sup>38</sup>
- Request for Qualifications (RFQ) are used to obtain professional services. Price is not included in evaluation of Statements of Qualifications in response to an RFQ. An RFQ is like an RFP except price is not an evaluation factor. Selection panels for RFQs and RFPs on construction and design projects consists of three to five MNAA project stakeholders of manager level or above, with the inclusion of BDD staff.<sup>39</sup>
- Waiver of Competitive Selection can be used when any of the following apply:
  - Emergency Procurement.
  - Goods and/or services are only available from a single or sole source.

Waiver of competition requires signatures from Department Head and Chief Procurement Officer. Federally funded projects require a sole-source waiver approved by the ADO.

- On-Call services are procured by an RFP for a narrow range of services to be performed during a specified timeframe and against a maximum overall contract value. Task orders are issued

<sup>36</sup> MNAA Procurement Procedures Manual, page 20.

<sup>37</sup> Progressive design build uses a qualifications-based selection, followed by a process whereby the owner 'progresses' towards a contract price with the team.

<sup>38</sup> See, for example, MNAA, Business Taking Off, 2017. <https://www.flynashville.com/business-diversity-development/Documents/BTO17.pdf>.

<sup>39</sup> MNAA, Design Project Management Standard Operating Procedure, page 21.

against the On-Call contract for the duration of the contract period. MNAA has On-Call contracts in the areas of airfield striping, maintenance (including clearing and grubbing and erosion control), low voltage services, building/roadway signage and landside paving. MNAA generally does not use On-Call contracts for other professional services.

- Job Order Contracting is a procurement method under which there is indefinite delivery of services in the sense that times, type and quantities of work are to be determined later. In the procurement, one or more contractors can be selected through an RFP process. Work is ordered on a task order basis with no guarantee that any services will be ordered. The pricing of each delivery order is based on Construction Cost Books. MNAA recently started using job order contracting for construction services for maintenance, repair, renovation, or minor construction of facilities. The first job order contract was for \$1 million per year, with a one-year contract and two one-year options. This job order contract did have an MWBE goal.

**C. Concessions<sup>40</sup>**

Until February, 2019 concessions operated under a master concessionaire model, including prime concessionaires and sub-concessionaires. Under the master concessionaire model, the MNAA had contracts with HMS Host, Hudson Group and Delaware North for concession work in food and beverage and news and gifts. Counts of the number of Airport Concessions DBE (ACDBE) concessionaires for FY 2014-2017 are contained in the table below:

*Table 12: Number of ACDBE Concessionaires (FY14-FY17)*

*MNAA Disparity Study*

<b>Fiscal Year</b>	<b>ACDBE Prime Concessionaires</b>	<b>ACDBE Sub-Concessionaires</b>	<b>ACDBE Goods &amp; Services</b>
FY 2017	5	3	21
FY 2016	7	3	17
FY 2015	6	4	15
FY 2014	5	3	3

Source: MNAA, Uniform Report of ACDBE Participation, FY 2014-FY 2017

Going forward, MNAA will use a third-party developer model to oversee the MNAA concessions and retail program for ten years. Under Fraport’s model, most of the businesses in ninety new locations will be independently and locally owned. Fraport will manage tenants similar to a mall and rent out spaces.

<sup>40</sup> Concessions Utilization and Disparity is in Appendix I.



## **D. Bonding, Insurance, and Prompt Payment**

### **1. Bonding and Insurance Requirements**

All MNAA construction projects require 100 percent payment and performance bonds. MNAA does not have a policy or practice of waiving bonds. BDD staff reported MWBE complaints about bonding.

MNAA Purchasing in partnership with the Legal Counsel and Risk Management sets insurance requirements for particular procurements.<sup>41</sup> A recent MNAA standard form for design build projects had the following insurance requirements: commercial general liability insurance, with coverage limits of \$1,000,000 per occurrence and \$1,000,000 in aggregate; automobile liability insurance, with a coverage limit of not less than \$1,000,000 per occurrence; worker's compensation insurance coverage, with limits of not less than \$100,000 for bodily injury by accident, \$100,000 for bodily injury by disease, and \$500,000 policy limit for disease.<sup>42</sup>

MNAA recently began using an owner-controlled insurance program (OCIP) on projects under which commercial general liability and other insurance policies are purchased and administered by MNAA. The OCIP provides insurance coverage for MNAA, its prime contractors and subcontractors while they are performing the work at MNAA project sites. Generally, MNAA staff report fewer vendor complaints of insurance requirements as a barrier since the implementation of the OCIP. Previously there had been some vendor concern about the professional liability insurance requirements.

### **2. Prompt Payment - 49 CFR Part 26.29**

MNAA procurement policy and Tennessee state law do not set prompt payment policies with penalties for noncompliance for MNAA and prime contractors. The basic MNAA payment terms practice is to pay in full within 30 days of invoice approval. Payment of subcontractors is based on the agreement subcontractors negotiate with prime contractors.

As required by the DBE program regulation, 49 C.F.R. § 26.29, a prompt payment contract clause obligates the prime contractor to pay the subcontractor for satisfactory completion of the subcontract no later than 30 days after the prime contractor receives payment from MNAA for the work performed by the subcontractor. MNAA staff reported hearing some vendor complaints about prompt payment.

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<sup>41</sup> MNAA, Procurement Procedures Manual, January 12, 2017, page 21.

<sup>42</sup> MNAA, Standard Form of Agreement Between Owner and Design-Builder, pages 44-45.

## E. Prequalification and Supplier Registration

The MNAA does not in general prequalify contractors and there is no prequalification list. As is the practice with other airports, MNAA procurement process allows for prequalification for specific bids.<sup>43</sup>

Vendors self-register with MNAA by NAICS code/work category, DBE/MWBE certification, form of business organization (corporation, partnership, etc.). BDD sends email blasts of business opportunities to firms on the vendor list. Vendors can register with AEROBIDZ (an external vendor registration system for airports) for free and receive a notification of opportunities. MNAA projects are also advertised on [www.flynashville.com](http://www.flynashville.com), in the Tennessean and the Tennessee Tribune Newspapers. Specific projects may be advertised on additional websites such as Airport Council International, and/or American Association of Airport Executives. Standard advertisement period is 30 calendar days.

## F. DBE and MWBE Programs

MNAA has a longstanding DBE program to satisfy federal requirements and a MWBE program since 2002. MNAA commissioned disparity studies in 2007 and 2014. The 2007 study reported that the MNAA spent 0.31 percent of contracts and subcontracts with MBEs and 2.88 percent with WBEs.<sup>44</sup> The 2014 Study reported that the MNAA spent 9.0 percent of contracts and subcontracts with MBEs and 5.5 percent with WBEs.<sup>45</sup>

### 1. MNAA DBE Directory - 49 CFR Part 26.31

**DBE Certification** - MNAA is part of the Tennessee Unified Certification Program for DBE certification and thus accepts certification from other transportation-related entities such as Nashville Metropolitan Transit Authority and the Tennessee Department of Transportation (“TDOT”). TDOT is the unified DBE certification agent for the state of Tennessee. MNAA does not maintain a separate DBE directory, but relies on the TDOT directory for DBEs. In April 2019 there were 256 DBEs in TDOT Region 3, which includes Nashville.<sup>46</sup>

**MWBE Certification** - MNAA has certified MWBEs since 2007. Within the MNAA MWBE certification program, firms are certified in one of the following classifications:

<sup>43</sup> MNAA, Competitive Sealed Bidding (non-construction) Section 3.2.2.

<sup>44</sup> Griffin & Strong, PC, Final Report For Development and Revision of Small, Minority & Women Business Enterprise Program, Findings, page 5.

<sup>45</sup> Collette Holt & Associates, 2013 Metropolitan Nashville Airport Disparity Study 2014 Disparity Study, Executive Summary, page 7.

<sup>46</sup> <https://www.tdot.tn.gov/Applications/DBEDirect/Search>. Tennessee DOT Region 3 is made up of the following counties: Giles, Wayne, Maury, Wilson, Lincoln, Perry, Hickman, Sumner, Stewart, Lawrence, Dickson, Bedford, Rutherford, Smith, Davidson, Williamson, Lewis, Humphreys, Robertson, Macon, Marshall, Montgomery, Cheatham, Houston, Moore, and Trousdale.

- SBE - Small Business Enterprise (Caucasian Male)
- MBE – Minority Business Enterprise (Minorities, Male and Female)
- WBE – Nonminority Females Business Enterprise (Caucasian Female)

MWBE certification requires that:

- All businesses seeking certification must be already established and have a business license.
- Businesses must be ready, willing and able to provide the product or service as described.
- The firm must meet ownership criteria.
- The firm must be willing to participate in annual reviews and updates, as required.
- An on-site visit will be performed as part of all firms seeking certificate.

MNAA MWBE certification also has three requirements:

Business Size requirement - A firm (including its affiliates) must satisfy the SBA small business size standards. Therefore, the firm must not have annual gross receipts over \$23.98 million in the previous three fiscal years. (There is a \$56.42 million size standard for airport concessionaires, with some exceptions.)

Personal Net Worth requirement- Only persons having a personal net worth of less than \$1.32 million can be considered as a potential DBE/ACDBE/MWBE. The personal net worth determination excludes the individual's ownership interest in the applicant firm, and their home equity. MNAA dropped the personal net worth limit at one point and then reinstated the requirement. Staff reported one firm graduating due to the personal net worth requirement.

Geographic requirement – Firms must be located in the state of Tennessee. At one point, certification was limited to the sixteen county Nashville metropolitan area but was later extended to the state of Tennessee based on the 2014 disparity study.

There is no cost for certification. Firm certification is valid until the firm is deemed decertified by MNAA. If the certification is denied or revoked the firm can: (1) seek an informal appeal hearing within 30 days of receipt of denial letter, (2) waive the informal hearing and make a written appeal within fifteen days of receipt of denial letter, or (3) allow the determination decision to stand and reapply within one year. BDD staff report that WBE fronts have been a major issue for certification.

The table below provides counts of WBEs, MBEs, SBEs and ACDBEs taken in March 2019 from the MNAA certified directory. As can be seen in the table, there were 220 MBEs in March 2019. There were 74 SBEs in the directory in 2019.

Table 13: MNAA Directory by MBE/WBE/SBE/ACDBE Status

MNAA Disparity Study

Category	Number
MBEs	220
WBEs	102
SBEs	74
ACDBEs	85

Source: MNAA Directory, March 2019

**2. Overall DBE Goals — 49 CFR Part 26.45**

The MNAA overall DBE goal was 9.28 percent for FY 2018. Overall DBE MNAA goals for the past five years are presented in the table below. The MNAA DBE program did not exclude any groups presumed to be disadvantaged under 49 CFR Part 26 from participation in the DBE goals program during the study period. In other words, Black Americans, Hispanic Americans, Native Americans, Asian Americans, and Nonminority Females have been included in the MNAA DBE goals program.

Table 14: MNAA Overall DBE Goals (FY14-FY18)

MNAA Disparity Study

Fiscal Year	Race and Gender Conscious DBE Goal	Race and Gender-Neutral DBE Goal	Total DBE Goal
FY 2018	9.28	0	9.28
FY 2017	9.28	0	9.28
FY 2016	9.28	0	9.28
FY 2015	5.5	2	7.5
FY 2014	5.5	2	7.5

Source: MNAA, Uniform Report of DBE Commitments/Awards and Payments, FY 2014-FY 2018

The table below shows the MNAA ACDBE goals from FY 2014 to FY 2017. MNAA has set an ACDBE goal for 22.6 percent involvement under the new concessions business model discussed above. Fraport has committed to achieve 40.5 percent ACDBE participation, along with a mentoring program for tenants at the airport.<sup>47</sup>

<sup>47</sup> MNAA, August 15, 2018, Minutes of the Joint Meeting of the MNAA Board of Commissioners and MPC Board of Directors, page 9.

Table 15: MNAA Overall ACDBE Goals (FY14-FY17)<sup>48</sup>

MNAA Disparity Study

Fiscal Year	Race & Gender Conscious ACDBE Goal	Race & Gender Neutral ACDBE Goal	Total ACDBE Goal
FY 2017	15.46%	0%	15.46%
FY 2016	15.46%	0%	15.46%
FY 2015	17.50%	0%	17.50%
FY 2014	17.50%	0%	17.50%

Source: MNAA, Uniform Report of ACDBE Participation, FY 2014-FY 2017

**3. DBE Contract Goals— 49 CFR Part 26.51(d)**

Nearly all projects are sent to BDD for goal setting and BDD sits in on most selection committees. MWBE primes also have to meet MWBE goals. There was not a MNAA goal setting committee during the study period. Instead, for example, the goal setting process in construction and engineering begins with a memo sent from MNAA Development & Engineering to BDD which outlines project scope items and their percent of contract, and BDD returns a memo with the goal.

BDD does not set goals mechanically as a rigid quota. Instead, BDD’s DBE (and MWBE) contract goal setting process works using a two-step process:

Step 1: Uses calculations including NAICS codes, engineer’s cost estimates assigned to the project’s NAICS codes, the relative availability of certified firms and a weighted average. For DBE goals MNAA uses the Tennessee DOT directory and generally looks at the state of Tennessee, but may look at neighboring states, such as Kentucky and Georgia.

Step 2: Adjusts the calculations based on availability, capacity and past history of firms. [MNAA, MNAA Business Diversity Program, 2017.]

**4. Good Faith Efforts — 49 CFR Part 26.53**

The MNAA MWBE program defines Good Faith Efforts for MWBEs as at a minimum the following:

Delivery of written notice to the following:

- All local, certified MWBEs in the directory for the month prior to the month of the bid or proposal submission date and identified as performing work ...or providing commodities for all potential subcontracting or supply categories in the contract; and

<sup>48</sup> The MNAA Uniform Report of ACDBE Participation for FY 2018 was not available.

- All small business minority and Nonminority Females focused associations identified in the directory for the month prior to the month of the bid or proposal submission date; and
- All news media focused toward minority persons and Nonminority Females identified in the directory for the month prior to the month of the bid or proposal submission date; and
- All MWBEs that requested information on the contract.

The written notices will contain:

- Adequate information about the plans, specifications, and relevant terms and conditions of the contract and about the work to be subcontracted to or the goods to be obtained from Subcontractors and suppliers;
- A contact person within the apparent low bidder's or proposer's office to answer questions;
- Information as to the apparent low bidder's or proposer's bonding requirements, the procedure for obtaining any needed bond, and the name and telephone number of one or more acceptable surety companies to contact;
- The last date for receipt by the bidder or proposer of MWBE bids or price quotations.
- Attendance at any special pre-bid meeting called to inform MWBEs of subcontracting or supply opportunities, if set forth in the bidding or proposal documents.
- Divisions of the contract, as recommended by the department head of the initiating MNAA Department in accordance with normal industry practice, into small, economically feasible segments that could be performed by MWBE.

Providing an explanation for rejection to any MWBE whose bid or price quotation is rejected, unless another MWBE is accepted for the same work as follows:

- Where price competitiveness is not the reason for rejection, a written rejection notice including the reason for rejection will be sent to the rejected SMWBE;
- Where price competitiveness is the reason for rejection, a meeting must be held, if requested, with the rejected MWBE to discuss the rejection; and
- Providing an explanation for rejection of any MWBE to the Disadvantaged Business Enterprise and Small, Minority and Nonminority Females Business Enterprise Coordinator unless another MWBE is accepted for the same work, including the name of the non-MWBE firm proposed to be awarded the subcontract or supply agreement, and if price competitiveness is the reason for rejection, the MWBE's price quotation and the successful non-MWBE's price quotation.  
[MNAA, Small, Minority and Nonminority Females Business Enterprise Program, April 17, 2002.]

MNAA has a pass/fail process for goal setting and good faith efforts submissions. If goals or good faith efforts submission are acceptable then the submission is passed on to the selection committee. MNAA Development and Engineering is not involved in the good faith efforts review. Bids deemed nonresponsive by BDD are reviewed by MNAA in-house counsel. At one time there was a practice of going back to a bidder who did not meet the goal but had the lowest price to see if the firm would negotiate on the goal. This practice was ended.

The following table shows that 24 bids on MNAA projects were rejected from 2014 through 2018 for failure to either satisfy the set goal or submit good faith efforts.

Table 16: Number of Bids That Failed to Meet Good Faith Efforts (2014-2018)

*MNAA Disparity Study*

<b>Year</b>	<b>Number of Bids that Failed to Satisfy Goal or Meet Good Faith Efforts</b>
2018	7
2017	10
2016	2
2015	3
2014	2

Source: MNAA Non-responsiveness Spreadsheet

**G. Fostering Small Business Participation – 49 CFR Part 26.39**

MNAA has made limited use of target markets to foster SBE utilization in pavements, parking lots and professional services (staff augmentation). Target markets procurement limits bidders to SBEs. MNAA is currently working on a process to select more projects for target market solicitations, including a janitorial target market for 2020.

**H. Business Development Programs – 49 CFR Part 26.35**

MNAA did not use a third-party supportive services consultant during the study but has undertaken a number of business development initiatives.

MNAA provides a Mentor Protégé program, which provides businesses with classroom- training on topics such as bonding, operations and succession planning. Ten firms a year are admitted into the mentor protégé program. The mentor protégé program has 13 of the 18 graduates winning contracts to date. The MNAA mentor protégé program was selected as the Nashville Business Incubation Center’s Collaborator of the Year award. (MNAA has collaborated with the Nashville Business Incubation Center on business development.) MNAA also sponsors an Emerging Contractor program, as part of the mentor-protégé program, which provides businesses with one-on-one technical assistance. Five firms a year are admitted into this program.

MNAA hosts “Business Taking Off,” a free annual networking event that provides MWBEs with information on doing business with MNAA and upcoming contracts and MNAA business opportunities. In 2018 more than 250 local business owners and representatives attended the event. BDD also hosts outreach meetings once a month and partners with local consultants for outreach. MNAA also has focused outreach in Nashville’s Promise Zone.

**I. Office of Business Diversity Development**

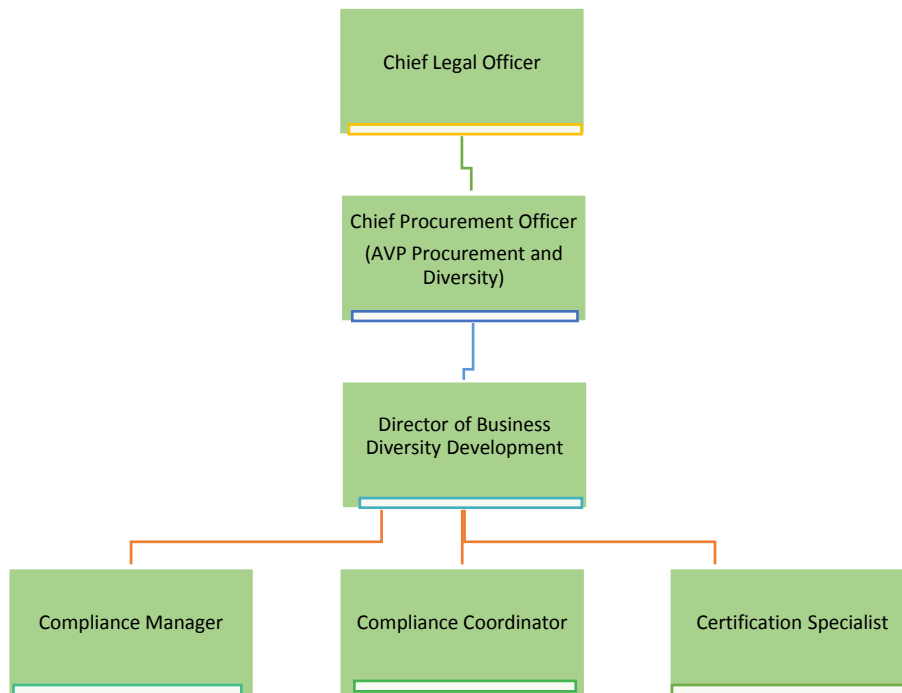
During the Study Period, the BDD was part of the MNAA Procurement and Diversity Department, which reports to the MNAA Chief Legal Officer. BDD currently reports to the Chief Administrative Officer.

The Office of Business Diversity Development provides the following services:

- Serve as a liaison for successful prime contractors and MWBE/DBEs to provide contracting opportunities.
- Serve as the liaison between MWBE/ DBEs and Airport Authority staff.
- Serve as a networking resource for MWBE/Disadvantaged firms and other governmental agencies.
- Assist MWBE/ DBEs in obtaining certifications.
- Manages the MWBE/DBE/ACDBE programs for the Airport Authority.
- Referral to other certifying agencies.
- Referral to SBA and other governmental agencies for business loan(s), bonding advice, etc.
- Monitors the MWBE/DBE/ACDBE compliance on locally and federally funded contracts.<sup>49</sup>

BDD currently has four and a half-staff working on the DBE and MWBE programs. The BDD organizational chart is presented in Figure 1 below.

*Figure 2: Office of Business Diversity Development Organizational Chart  
MNAA Disparity Study (As of December 31, 2018)*



<sup>49</sup> <https://www.flynashville.com/business-diversity-development/Pages/default.aspx>.



**J. Reporting to DOT – 49 CFR Part 26.11 (b)**

MNAA reports DBE awards and payment and ACDBE participation to the FAA annually. MNAA staff reports that they have been confirming subcontractor payments for the past two to three years. The table below shows DBE awards for MNAA from FY 2014 through FY 2018, which ranged from 11.2 percent to 27.5 percent. The next table shows MNAA ACDBE participation, which ranged from 14.3 percent to 17.6 percent.

*Table 17: DBE Awards (FY14-FY18)*

*MNAA Disparity Study*

<b>Fiscal year</b>	<b>Total Awards</b>	<b>DBE Prime and Subcontractor Awards</b>	<b>DBE Percent of Awards</b>
FY 2018	\$14,018,459	\$2,863,630	20.4%
FY 2017	\$290,500	\$80,000	27.5%
FY 2016	\$2,343,466	\$327,919	14.0%
FY 2015	\$15,118,889	\$1,691,622	11.2%
FY 2014	\$21,952,561	\$2,535,371	11.5%
Total	\$53,723,875	\$7,498,542	14.0%

Source: MNAA, Uniform Report of DBE Commitments/Awards and Payments, FY 2014-FY 2018

*Table 18: ACDBE Participation (FY14-FY17)<sup>50</sup>*

*MNAA Disparity Study*

<b>Fiscal year</b>	<b>Total Awards</b>	<b>DBE Prime and Subcontractor Awards</b>	<b>DBE Percent of Awards</b>
FY 2017	\$104,577,533	\$14,942,425	14.3%
FY 2016	\$78,937,478	\$13,918,250	17.6%
FY 2015	\$70,222,449	\$10,946,393	15.6%
FY 2014	\$67,300,954	\$10,009,287	14.9%
Total	\$321,038,414	\$49,816,355	15.5%

Source: MNAA, Uniform Report of ACDBE Participation, FY 2014-FY 2017

<sup>50</sup> The MNAA Uniform Report of ACDBE Participation for FY 2018 was not available.

## **K. Conclusions**

MNAA has set DBE and MWBE contract goals during the study period. MNAA has a narrowly tailored process for setting DBE and MWBE goals in line with availability and subcontracting opportunity. MNAA has also changed its concessions business model and projects increased ACDBE utilization as one of the consequences of that change. MNAA business development training has been focused on outreach events, a mentor protégé program and an emerging business program.

The impact of these policies is evaluated further in the quantitative and anecdotal material in subsequent chapters in this report. Detailed recommendations about MNAA procurement and DBE/MWBE policy are found in the Executive Summary, Chapter II, above. Those recommendations are based on the combination of the findings in this chapter with the findings in the Statistical and Anecdotal chapters in this Study.

## V. QUANTITATIVE ANALYSIS

### A. Introduction

The quantitative analysis measures and compares the availability of firms in each race/ethnicity/gender group within MNAA's geographical and product market areas to the utilization of each race/ethnicity/gender group, measured by the payments to these groups by MNAA.

#### Research Question: Statistical Analysis

**Is there a disparity that is statistically significant between the percentage of available M/WBE firms, in the Relevant Geographic and Product Markets, and the percentage of dollars spent with M/WBE firms in those same markets during the Study Period?**

The outcome of the comparison shows us whether there is a disparity between availability and utilization and whether that disparity is an overutilization, an underutilization, or in parity (the amount to be expected). Further, the disparity is tested to see if it is statistically significant. Finally, the regression analysis contained in the Chapter V Private Sector Analysis will test other explanations for the disparity to determine if it is likely that the disparity is caused by race/ethnicity/gender status, or other factors. If there is statistically significant underutilization of MWDBEs or ACDBEs that is likely caused by race/ethnicity/gender, then GSPC will determine, as part of the findings whether there is a basis for an inference of discrimination.

### B. Data Assessment

The data assessment process was initiated with a meeting with representatives from MNAA's various departments that are involved in purchasing along with its Chief Procurement Officer and diversity program staff. The purpose of each of these meetings was to determine what data the MNAA maintains, in what format, and how GSPC can obtain the data. Further, GSPC desired to get a better understanding of MNAA's purchasing process in order to best execute the methodology that has been approved by MNAA. It was also important for GSPC's team to get to know procurement personnel and understand how to operate the Study in a manner least intrusive to MNAA personnel.

GSPC's Data Assessment Report is attached hereto as Appendix B.

### C. Data Setup

Following approval of the Data Assessment Report, GSPC developed and executed a Data Collection Plan and submitted data requests to MNAA. The Data Collection Plan set out the process for collecting manual and electronic data for statistical analyses. In addition, it included a plan for collecting data needed for the anecdotal portions of the study which included surveys, public hearings, focus groups, and interviews.

GSPC's Data Collection Plan is attached hereto as Appendix C.

## 1. Electronic Data

Electronic data (MS Excel or other computer spreadsheets) supplied by MNAA and other data collected by GSPC were catalogued and securely stored in GSPC's computer systems subsequent to the data collection effort. The data entered were used to develop databases containing contracting history for each business type, for both prime contracting and subcontracting on behalf of MNAA. GSPC related all of the databases collected in order to cross-reference information among the files, including matching addresses, work categories, and M/W/DBE identification.

## 2. Manual Data Entry

MNAA's ACDBE utilization data was not available in electronic format and had to be entered manually by data entry personnel, as well as subcontractor data.

### D. Data Assignment, Cleanup and Verification

After the completion of data collection, the data were electronically and manually "cleaned" to find and reconcile duplicates (both electronically and manually) and fill in unpopulated fields. The cleanup phase also included the following five (5) tasks:

- Assigning and verifying ethnicity, race & gender of each firm based upon certified firms;
- Assigning each firm to one or more of the business categories based upon the kind of work that the firm performs;
- Utilizing zip codes to determine certain areas to assign each firm's location
- Matching files electronically to pick up addresses, ethnicity/race/gender, and/or work category; and
- Filling in any additional missing data on firms.

File cleanup was first done electronically by linking information provided by MNAA to certain indicators, like work descriptions or cross-referencing information with other files to fill in missing fields.

### E. Assignment of Race/Gender/Ethnicity

In order to identify all minority groups, GSPC utilized the assignments given to firms in the certified governmental lists from MNAA, the Tennessee Unified Certification Program, and Metropolitan Nashville Government.<sup>51</sup> An assignment of race/gender/ethnicity, priority is given to race/ethnicity, so that all minority owned firms were categorized according to their race/ethnicity and not by gender. Nonminority Females are categorized by race and gender and firms with no race/ethnicity/gender indicated and Caucasian male owned firms and publicly owned corporations are categorized as Non-M/WBE firms.

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<sup>51</sup> Only government certified firms were assigned MWBE status in this analysis.

From all of the governmental sources, GSPC assembled a Master M/WBE list. Where there were any inconsistencies in the race/ethnicity/gender, GSPC researched the firm and manually resolved any inconsistencies.

## **F. Assignment of Business Categories**

In order to place firms in the proper business categories, GSPC used the business name, item purchased, NAICS codes or other work descriptions to assign the firms into one of the four (4) major work categories of Construction (federal), Construction (non-federal), Professional Services, Goods & Services, and Concessions.

## **G. Data Source Description**

The purpose of GSPC's "Master Vendor File" is to collect, in one database, a listing of all firms that are ready, willing, and able to do business with MNAA. It includes internal lists from MNAA as well as outside governmental lists. GSPC's Master Vendor File is a compilation of all lists of vendors used to determine availability estimates. It was also used to match and verify data in other data files, particularly to make sure that information assigned to firms for utilization calculations matched the information assigned to firms for availability calculations. This is important to make sure that GSPC is comparing like-data to like-data. GSPC's Master Vendor File contains the lists of firms from the following data sources:

### **1. MNAA Data Files**

- MNAA Vendors List (Current)
- Bidders in Aerobid (Study Period)
- Bid Tabulations (Study Period)
- Contracts (Study Period)
- Purchase Orders (Study Period)
- Subcontractor Bid Forms (Study Period)
- Subcontractors in B2GNow (Study Period)
- MNAA Certified MWBE List (Current)
- Concessionaires Database (Current)
- Letters of Interest (Concessions)
- Concessionaires Revenue Database (Concessions)

### **2. Outside Files**

- State of Tennessee GoDBE M/WBE List (Current)
- State of Tennessee Unified Certification List (TNUCP) (Current)
- Metropolitan Nashville Government M/WBE List (Current)

## H. Relevant Market Analysis

The now commonly-held idea that the relevant market area should encompass at least seventy-five to eighty-five percent of the "qualified" vendors that serve a particular sector has its origins in antitrust lawsuits.<sup>52</sup> In line with antitrust precepts, United States Supreme Court, Justice Sandra Day O'Connor in Croson, specifically criticized Richmond, Virginia, for making Minority Business Enterprises (MBEs) all over the country eligible to participate in its set-aside programs.<sup>53</sup> The Court reasoned that a mere statistical disparity between the overall minority population in Richmond, Virginia, which was 50% Black American, and the award of prime contracts to minority owned firms, 0.67% of which were Black American owned firms, was an insufficient statistical comparison to raise an inference of discrimination. Justice O'Connor also wrote that the relevant statistical comparison is one between the percentage of Minority Business Enterprises in the marketplace [or *Relevant Market*] who were qualified to perform contracting work (including prime and subcontractors) and the percentage of total MNAA contracting dollars paid to minority firms. It should be noted that it is preferable, from an economic standpoint, to evaluate the largest and most exhaustive group of firms, even to 100% of all firms, but for this disparity study, GSPC utilized a benchmark of at least 75%.

The relevant market has been determined for each of the major procurement categories:

- Prime Construction and Construction-Related Professional Services (Non-federal and Federal)
- Professional Services
- Goods and Other Services

For each procurement category GSPC measured the "relevant market" by the area where at least 75% of MNAA's dollars were paid during the Study Period. GSPC measured the geographic territory where payments were made by MNAA, starting with Davidson County, TN and radiating out as in Figure 1 below until reaching the location of at least 75% of prime awardees in each industry. In analyzing the relevant market data, GSPC tabulated the percentage of dollars paid, beginning with Davidson County and then to the Nashville Metropolitan Statistical Area (MSA) which adds to Davidson County, the counties of Williamson and Wilson.

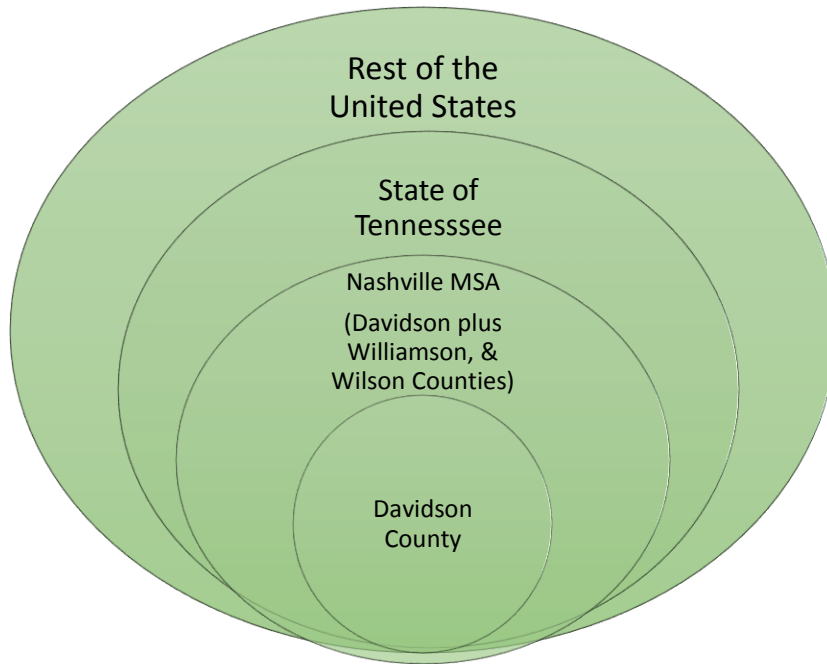
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<sup>52</sup> D. Burman. "Predicate Studies: The Nashville Model," Tab E of 11-12 Minority and Women Business Programs Revisited (ABA Section of Public Contract law, Oct. 1990)

<sup>53</sup> City of Richmond v. J.A. Croson Company, 488 U.S. 469, 709 S. Ct. 706 (1989)

Figure 3: Levels of Measurement for the Geographic Relevant Market

MNAA Disparity Study



Griffin & Strong, P.C. 2019

Tables 19-22 detail the dollars paid in each level of the Geographic Relevant Market calculations by payments. It is interesting to note that in Construction and Construction-Related Professional Services (non-federal) 82.04% of all the dollars paid were paid to firm located within the Relevant Market and 99.84% for Construction and Construction-Related Professional Services (federal). In Professional Services, 79.06% of the dollars were paid to firms within the Relevant Market, and 83.54% in Goods and Services. Since all of the work categories have the Relevant Market as the relevant market GSPC determined that it is appropriate to have one consistent relevant market across all work categories the Relevant Market.

*Table 19: Procurement by Market Area (County and State) for Prime Construction and Construction Related Professional Services – Non-federal (Using Payments) FY14-FY18*

*MNAA Disparity Study*

Market Area	Dollar	Percent	Cumulative Dollar	Cumulative Percent
DAVIDSON COUNTY, TN	\$ 180,268,801	73.30%	\$ 180,268,801	73.30%
WILLIAMSON COUNTY, TN	\$ 11,794,684	4.80%	\$ 192,063,486	78.10%
WILSON COUNTY, TN	\$ 9,690,364	3.94%	\$ 201,753,849	82.04%
Other Counties in the State of Tennessee	\$ 13,675,510	5.56%	\$ 215,429,360	87.60%
Other States in the USA	\$ 30,497,170	12.40%	\$ 245,926,529	100.00%
Outside USA	\$ 5,763	0.00%	\$ 245,932,293	100.00%
<b>Total</b>	<b>\$ 245,932,293</b>	<b>100.00%</b>		
Griffin & Strong, P.C. 2019				

*Table 20: Procurement by Market Area (County and State) for Prime Construction and Construction Related Professional Services – Non-federal (Using Payments) FY14-FY18*

*Federal (Using Payments) FY14-FY18*

Market Area	Dollar	Percent	Cumulative Dollar	Cumulative Percent
DAVIDSON COUNTY, TN	\$ 50,777,531	60.12%	\$50,777,530.79	60.12%
WILLIAMSON COUNTY, TN	\$ 15,863,223	18.78%	\$15,863,223.18	78.90%
WILSON COUNTY, TN	\$ 17,688,321	20.94%	\$17,688,320.64	99.84%
Other Counties in the State of Tennessee	\$ 6,774	0.01%	\$ 17,695,095	99.85%
Other States in the USA	\$ 108,093	0.13%	\$ 17,803,188	99.98%
Outside USA	\$ 17,924	0.02%	\$ 17,821,111	100.00%
<b>Total</b>	<b>\$ 84,461,865</b>	<b>100.00%</b>		
Griffin & Strong, P.C. 2019				



*Table 21: Procurement by Market Area (County and State) for Prime Professional Services (Using Payments (FY14-FY18))*

*MNAA Disparity Study*

Market Area	Dollar	Percent	Cumulative Dollar	Cumulative Percent
DAVIDSON COUNTY, TN	\$ 94,250,315	77.23%	\$ 94,250,315	77.23%
WILLIAMSON COUNTY, TN	\$ 5,507,465	4.51%	\$ 99,757,780	81.75%
WILSON COUNTY, TN	\$ 2,190,254	1.79%	\$ 101,948,034	83.54%
Other Counties in the State of Tennessee	\$ 1,595,039	1.31%	\$ 103,543,073	84.85%
Other States in the USA	\$ 17,924,847	14.69%	\$ 121,467,921	99.54%
Outside USA	\$ 564,898	0.46%	\$ 122,032,819	100.00%
<b>Total</b>	<b>\$ 122,032,819</b>	<b>100.00%</b>		
Griffin & Strong, P.C. 2019				

*Table 22: Procurement by Market Area (County and State) for Prime Goods and Services (Using Payments) FY14-FY18*

*MNAA Disparity Study*

Market Area	Dollar	Percent	Cumulative Dollar	Cumulative Percent
DAVIDSON COUNTY, TN	\$ 88,790,927	77.67%	\$ 88,790,927	77.67%
WILLIAMSON COUNTY, TN	\$ 616,751	0.54%	\$ 89,407,678	78.21%
WILSON COUNTY, TN	\$ 971,620	0.85%	\$ 90,379,298	79.06%
Other Counties in the State of Tennessee	\$ 2,403,302	2.10%	\$ 92,782,600	81.16%
Other States in the USA	\$ 21,517,990	18.82%	\$ 114,300,590	99.98%
Outside USA	\$ 17,217	0.02%	\$ 114,317,807	100.00%
<b>Total</b>	<b>\$ 114,317,807</b>	<b>100.00%</b>		
Griffin & Strong, P.C. 2019				

## I. Availability Analysis

### 1. Methodology

The methodology utilized to determine the availability of businesses for public contracting is crucial to understanding whether a disparity exists within the relevant market. Availability is a benchmark to examine whether there are any disparities between the utilization of M/WBEs and their availability in the marketplace.

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*Availability is the determination of the percentage of M/WBEs that are “ready, willing, and able” to provide goods or services to the MNAA.*

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*Croson* and subsequent decisions give only general guidance as to how to measure availability. One common theme from the court decisions is that being qualified to perform work for a local jurisdiction is one of the key indices of an available firm. In addition, the firm must have demonstrated that it is both willing and able to perform the work.

The measures of availability utilized in this disparity study incorporate all of the criteria of availability required by *Croson*:

- The firm does business within an industry group from which the MNAA makes certain purchases.
- The firm's owner has taken steps to demonstrate interest in doing business with government.
- The firm is located within a relevant geographical area such that it can do business with the MNAA.

For example:

Let: A = Availability Estimates

A (Asian) = Availability Estimates for Asian Business Enterprises

N (Asian) = Number of Asian Business Enterprises in the relevant market

N (M/WBE) = Number of Minority owned Business Enterprises

N (t) = Total number of businesses in the pool of bidders in the procurement category (for example, Construction and Construction-Related Professional Services)

Availability, (A), is a percentage and is computed by dividing the number of firms in each M/WBE group by the total number of businesses in the pool of bidders for that procurement category, N (t). For instance, availability for Asians is given by

$A \text{ (Asian)} = N \text{ (Asian)} / N \text{ (t)}$

and total availability for all M/WBE groups is given by

$A \text{ (M/WBE)} = N \text{ (M/WBE)} / N \text{ (t)}$ .

Once these availability estimates were calculated, GSPC compared them to the percentage of firms utilized in the respective business categories in order to generate the disparity indices which will be discussed later in this analysis.

## **2. Measurement Basis for Availability**

There are numerous approaches to measuring available, qualified firms. GSPC has established a methodology of measuring availability based upon demonstrated interest in doing business with governments. In determining those firms to be included in the availability pool, GSPC included the entire “Master Vendor File” only of firms within the Relevant Markets.

- D&B Vendor List Telephone Survey
- MNAA GoDBE
- MNAA Master Projects
- MNAA Bidder Data
- MNAA Payment File
- MNAA PO File
- MNAA Vendor List
- MNAA Subcontractors List
- MNAA MP2 Purchase Order
- MNAA Prime Utilization Data
- Tennessee Department of Transportation Prequalified List
- Tennessee Unified Certification Program

## **3. Capacity**

The ability or capacity to perform the work is tested below in the Regression Analysis conducted in Chapter V below.

The regression analysis shows whether race/ethnicity/gender factors are impediments overall to the success of M/WBEs in obtaining awards in the Nashville marketplace and whether, but for those factors, firms would have the capacity to provide goods and services on a level higher than what is presently being utilized.

## **4. Availability Estimates**

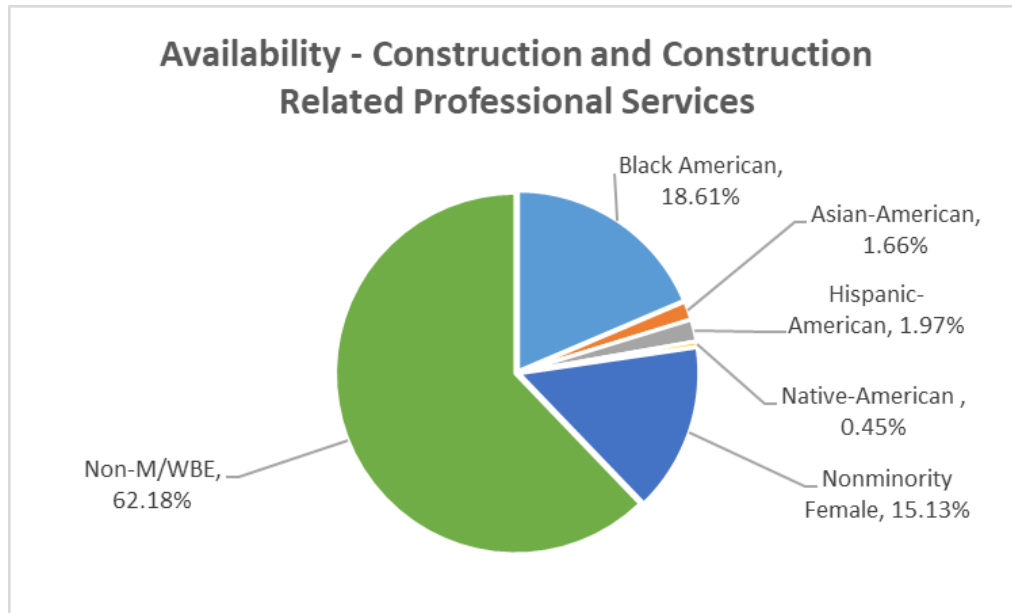
Below are the Availability Estimates for the Study. The data is separated into the four (4) major business categories: Construction and Construction-Related Professional Services (federal), Construction and Construction-Related Professional Services (non-federal), Professional Services, and Goods. Figures 3-5 show the number of firms by race/gender/ethnicity as compared with the total number of firms. All

availability (not broken down by work category) and number of firms used for availability are contained in Appendix E.

The availability analyzed from GSPC’s Master Vendor File includes all unique vendors in each work category.<sup>54</sup> The Relevant Market availability in Figure 4 below shows that, in Construction and Construction-Related Professional Services, Black American owned firms make up 18.61% of all Construction and Construction-Related Professional Services firms, Nonminority Female owned firms make up 15.13%. Asian American owned firms are 1.66%, while Hispanic American and Native American owned firms have availability of 1.97% and 0.45%, respectively, in Construction and Construction-Related Professional Services within the Relevant Market. In total, M/WBEs account for 37.82% of all available firms in Construction and Construction-Related Professional Services.

*Figure 4: Availability Estimates - Construction and Construction Related Professional Services in the Relevant Market*

*MNAA Disparity Study*



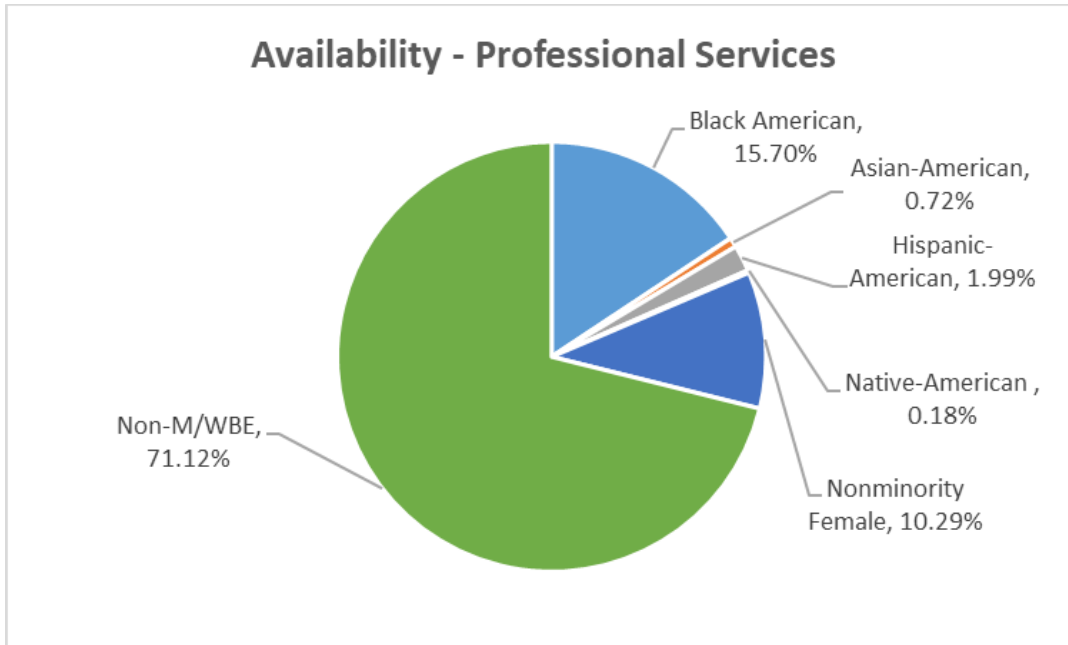
Griffin & Strong, P.C. 2019

As set out in the availability Figure 5, Black American owned firms make up 15.70% of Professional Services firms and Nonminority Female owned firms make up 10.29%. Non-M/WBE owned firms account for about 71.12%, while Asian American owned firms have 0.72%. Hispanic American owned firms have 1.99% and

<sup>54</sup> Firms can count in more than one business category if they perform services in each category, but can only be counted once in each business category.

Native American owned firms have 0.18% availability in this category. M/WBEs are 28.88% of all available firms in Professional Services.

*Figure 5: Availability Estimates - Professional Services in the Relevant Market*  
*MNAA Disparity Study*

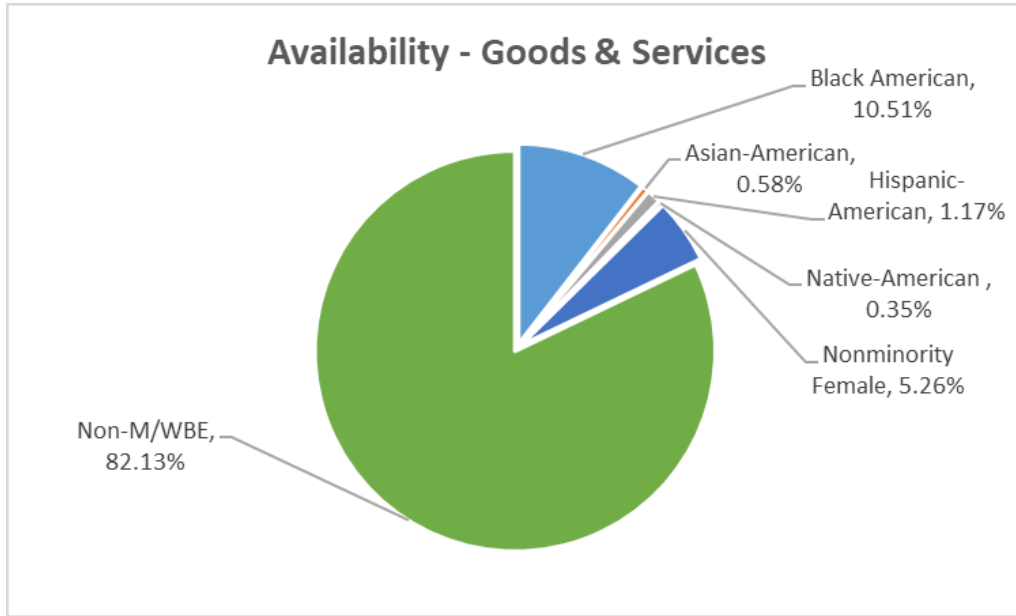


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Goods and Services availabilities are reflected in Figure 6 so that businesses owned by Black Americans make up 10.51% and Nonminority Female owned 5.26% of the firms. Non-M/WBEs account for 82.13% of all availability, while Asian American owned firms have 0.58%. Hispanic American owned firms have 1.17% and Native American owned firms have 0.35% availability in this category. M/WBEs total 17.87% of all available firms in Goods and Services.

Figure 6: Availability Estimates - Goods and Services in the Relevant Market

MNAA Disparity Study



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**J. Utilization Analysis**

**1. Prime Utilization**

The relevant payment history for MNAA has been recorded based upon the payment database provided by MNAA. In the Prime Utilization tables below, the dollars and percentage of dollars paid in each of the four (4) major procurement categories have been broken out by race/ethnicity and gender for each year of the Study Period. The total of each race/ethnicity/gender group represented in the M/WBE category will, when added to the Non-M/WBE Category, equal the Total Column.

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***PRIME UTILIZATION** is the percentage of actual payments made directly by MNAA during the Study Period to M/WBEs in comparison to all actual payments made directly to all vendors by MNAA during the Study Period.*

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As indicated in Tables 23 and 24, five M/WBEs received payments in Construction and Construction-Related Professional Services (non-federal) during the five years of this study. A total of seventeen (17) MBEs received \$4,360,199 during the Study Period, while eighteen (18) Nonminority Female owned firms were paid \$7,997,275. One hundred and fifty-one (151) non-M/WBE firms were paid \$189,396,375, with an average to each firm of \$1.25 million. M/WBEs received 6.13% of the total prime Construction and Construction-Related Professional Services (non-federal) dollars.

Table 23: Prime Utilization - Construction and Construction Related Professional Services (Non-federal) By Number of Firms in the Relevant Market

MNAA Disparity Study

Fiscal Year	African American		Asian American		Hispanic		Native American		Total MBE		Nonminority		Total M/WBE		Non-M/WBE		TOTAL	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
2014	5	4.46%	1	0.89%	0	0.00%	0	0.00%	6	5.36%	13	11.61%	19	16.96%	93	83.04%	112	24.78%
2015	7	7.87%	1	1.12%	0	0.00%	0	0.00%	8	8.99%	12	13.48%	20	22.47%	69	77.53%	89	19.69%
2016	5	5.49%	1	1.10%	1	1.10%	0	0.00%	7	7.69%	12	13.19%	19	20.88%	72	79.12%	91	20.13%
2017	4	4.55%	1	1.14%	1	1.14%	0	0.00%	6	6.82%	13	14.77%	19	21.59%	69	78.41%	88	19.47%
2018	4	5.56%	1	1.39%	1	1.39%	0	0.00%	6	8.33%	10	13.89%	16	22.22%	56	77.78%	72	15.93%
Total 2014-2018	25	5.53%	5	1.11%	3	0.66%	0	0.00%	33	7.30%	60	13.27%	93	20.58%	359	79.42%	452	100.00%
Total Unique Number of Businesses	15	8.06%	1	0.54%	1	0.54%	0	0.00%	17	9.14%	18	9.68%	35	18.82%	151	81.18%	186	100.00%

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\* Total unique number represents the number of unduplicated firms during the Study Period.

Table 24: Prime Utilization - Construction and Construction Related Professional Services (Non-federal) By Dollars

MNAA Disparity Study

Business Ownership Classification	2014	2015	2016	2017	2018	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Black American	\$ 226,283	\$ 98,284	\$ 157,972	\$ 189,917	\$ 1,214,336	\$ 1,886,793
Asian American	\$ 2,270	\$ 12,208	\$ 12,915	\$ 7,500	\$ 1,800	\$ 36,693
Hispanic American			\$ 186,525	\$ 497,763	\$ 1,752,426	\$ 2,436,713
Native American						\$ -
<b>TOTAL MINORITY</b>	<b>\$ 228,553</b>	<b>\$ 110,492</b>	<b>\$ 357,411</b>	<b>\$ 695,180</b>	<b>\$ 2,968,562</b>	<b>\$ 4,360,199</b>
Nonminority Female	\$ 1,372,884	\$ 1,104,957	\$ 1,100,864	\$ 2,074,206	\$ 2,344,364	\$ 7,997,275
<b>TOTAL M/WBE</b>	<b>\$ 1,601,438</b>	<b>\$ 1,215,448</b>	<b>\$ 1,458,276</b>	<b>\$ 2,769,387</b>	<b>\$ 5,312,926</b>	<b>\$ 12,357,474</b>
NON-M/WBE	\$ 25,891,964	\$ 10,940,420	\$ 19,268,289	\$ 57,764,925	\$ 75,530,778	\$189,396,375
<b>TOTAL FIRMS</b>	<b>\$ 27,493,401</b>	<b>\$ 12,155,868</b>	<b>\$ 20,726,564</b>	<b>\$ 60,534,312</b>	<b>\$ 80,843,704</b>	<b>\$201,753,849</b>
Business Ownership Classification	2014	2015	2016	2017	2018	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
Black American	0.82%	0.81%	0.76%	0.31%	1.50%	0.94%
Asian American	0.01%	0.10%	0.06%	0.01%	0.00%	0.02%
Hispanic American	0.00%	0.00%	0.90%	0.82%	2.17%	1.21%
Native American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>TOTAL MINORITY</b>	<b>0.83%</b>	<b>0.91%</b>	<b>1.72%</b>	<b>1.15%</b>	<b>3.67%</b>	<b>2.16%</b>
Nonminority Female	4.99%	9.09%	5.31%	3.43%	2.90%	3.96%
<b>TOTAL M/WBE</b>	<b>5.82%</b>	<b>10.00%</b>	<b>7.04%</b>	<b>4.57%</b>	<b>6.57%</b>	<b>6.13%</b>
NON-M/WBE	94.18%	90.00%	92.96%	95.43%	93.43%	93.87%
<b>TOTAL FIRMS</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

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As shown in Tables 25 and 26, in Construction and Construction-Related Professional Services (federal) there were three (3) MBEs that shared a total amount of \$88,207 which was 0.10% of the total Construction and Construction-Related Professional Services (federal) dollars. Three (3) Nonminority Female owned firms were paid 0.11% or \$88,646 of the total Construction and Construction-Related Professional Services (federal) dollars, which was the highest percent of dollars paid to M/WBEs. The average paid to M/WBE firms was \$29,475 compared to \$2,805,074 to Non-M/WBE firms.

Table 25: Prime Utilization - Construction and Construction Related Professional Services (Federal)  
By Number of Firms  
MNAA Disparity Study

Fiscal Year	African American		Asian American		Hispanic American		Native American		Total MBE		Nonminority Female		Total M/WBE		Non-M/WBE		TOTAL	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
2014	2	14.29%	0	0.00%	0	0.00%	0	0.00%	2	14.29%	2	14.29%	4	28.57%	10	71.43%	14	22.22%
2015	1	5.88%	0	0.00%	0	0.00%	0	0.00%	1	5.88%	2	11.76%	3	17.65%	14	82.35%	17	26.98%
2016	1	7.14%	0	0.00%	0	0.00%	0	0.00%	1	7.14%	1	7.14%	2	14.29%	12	85.71%	14	22.22%
2017	1	10.00%	0	0.00%	0	0.00%	0	0.00%	1	10.00%	2	20.00%	3	30.00%	7	70.00%	10	15.87%
2018	0	0.00%	0	0.00%	1	12.50%	0	0.00%	1	12.50%	1	12.50%	2	25.00%	6	75.00%	8	12.70%
Total 2014-2018	5	7.94%	0	0.00%	1	1.59%	0	0.00%	6	9.52%	8	12.70%	14	22.22%	49	77.78%	63	100.00%
Total Unique Number of Businesses	2	5.56%	0	0.00%	1	2.78%	0	0.00%	3	8.33%	3	8.33%	6	16.67%	30	83.33%	36	100.00%

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\* Total unique number represents the number of unduplicated firms during the Study Period.

Table 26: Prime Utilization - Construction and Construction Related Professional Services (Federal)  
By Dollars  
MNAA Disparity Study

Business Ownership Classification	2014	2015	2016	2017	2018	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Black American	\$ 6,110	\$ 36,471	\$ 4,561	\$ 19,749	\$ -	\$ 66,892
Asian American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hispanic American	\$ -	\$ -	\$ -	\$ -	\$ 21,315	\$ 21,315
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL MINORITY</b>	<b>\$ 6,110</b>	<b>\$ 36,471</b>	<b>\$ 4,561</b>	<b>\$ 19,749</b>	<b>\$ 21,315</b>	<b>\$ 88,207</b>
Nonminority Female	\$ 37,979	\$ 20,001	\$ 20,179	\$ 9,761	\$ 726	\$ 88,646
<b>TOTAL M/WBE</b>	<b>\$ 44,090</b>	<b>\$ 56,473</b>	<b>\$ 24,740</b>	<b>\$ 29,511</b>	<b>\$ 22,041</b>	<b>\$ 176,854</b>
NON-M/WBE	\$ 21,508,129	\$ 24,056,693	\$ 23,624,051	\$ 13,201,659	\$ 1,761,689	\$ 84,152,221
<b>TOTAL FIRMS</b>	<b>\$ 21,552,218</b>	<b>\$ 24,113,165</b>	<b>\$ 23,648,791</b>	<b>\$ 13,231,170</b>	<b>\$ 1,783,730</b>	<b>\$ 84,329,075</b>
Business Ownership Classification	2014	2015	2016	2017	2018	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
Black American	0.03%	0.15%	0.02%	0.15%	0.00%	0.08%
Asian American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hispanic American	0.00%	0.00%	0.00%	0.00%	1.19%	0.03%
Native American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>TOTAL MINORITY</b>	<b>0.03%</b>	<b>0.15%</b>	<b>0.02%</b>	<b>0.15%</b>	<b>1.19%</b>	<b>0.10%</b>
Nonminority Female	0.18%	0.08%	0.09%	0.07%	0.04%	0.11%
<b>TOTAL M/WBE</b>	<b>0.20%</b>	<b>0.23%</b>	<b>0.10%</b>	<b>0.22%</b>	<b>1.24%</b>	<b>0.21%</b>
NON-M/WBE	99.80%	99.77%	99.90%	99.78%	98.76%	99.79%
<b>TOTAL FIRMS</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

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As indicated in Tables 27 and 28, fifteen (15) MBEs represented 3.88% of all firms paid in Professional Services. Eleven (11) Nonminority Female owned firms were paid \$756,647, representing 0.74%. The average dollars paid to M/WBE firms was \$63,816 compared to \$277,808 to non-M/WBE firms in Professional Services.



Table 27: Prime Utilization - Professional Services By Number of Firms

MNAA Disparity Study

Fiscal Year	African American		Asian American		Hispanic American		Native American		Total MBE		Nonminority Female		Total M/WBE		Non-M/WBE		TOTAL	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
2014	4	1.79%	0	0.00%	1	0.45%	0	0.00%	5	2.23%	4	1.79%	9	4.02%	215	95.98%	224	24.32%
2015	0	0.00%	0	0.00%	2	1.16%	0	0.00%	2	1.16%	9	5.20%	11	6.36%	162	93.64%	173	18.78%
2016	8	4.23%	0	0.00%	0	0.00%	0	0.00%	8	4.23%	10	5.29%	18	9.52%	171	90.48%	189	20.52%
2017	5	3.05%	0	0.00%	1	0.61%	0	0.00%	6	3.66%	9	5.49%	15	9.15%	149	90.85%	164	17.81%
2018	5	2.92%	0	0.00%	1	0.58%	0	0.00%	6	3.51%	5	2.92%	11	6.43%	160	93.57%	171	18.57%
Total 2014-2018	22	2.39%	0	0.00%	5	0.54%	0	0.00%	27	2.93%	37	4.02%	64	6.95%	857	93.05%	921	100.00%
Total Unique Number of Businesses	12	3.10%	0	0.00%	3	0.78%	0	0.00%	15	3.88%	11	2.84%	26	6.72%	361	93.28%	387	100.00%

\* Total unique number represents the number of unduplicated firms during the Study Period.

Table 28: Prime Utilization - Professional Services By Dollars

MNAA Disparity Study

Business Ownership Classification	2014	2015	2016	2017	2018	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Black American	\$ 108,566	\$ 320,989	\$ 144,866	\$ 111,836	\$ 90,801	\$ 777,057
Asian American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hispanic American	\$ 110	\$ 5,889	\$ 16,140	\$ 45,143	\$ 58,239	\$ 125,522
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL MINORITY</b>	<b>\$ 108,676</b>	<b>\$ 326,878</b>	<b>\$ 161,006</b>	<b>\$ 156,979</b>	<b>\$ 149,040</b>	<b>\$ 902,579</b>
Nonminority Female	\$ 166,783	\$ 175,230	\$ 186,522	\$ 118,042	\$ 110,071	\$ 756,647
<b>TOTAL M/WBE</b>	<b>\$ 275,458</b>	<b>\$ 502,108</b>	<b>\$ 347,528</b>	<b>\$ 275,021</b>	<b>\$ 259,111</b>	<b>\$ 1,659,226</b>
NON-M/WBE	\$ 41,987,362	\$ 12,340,708	\$ 14,497,829	\$ 14,494,580	\$ 16,968,330	\$ 100,288,808
<b>TOTAL FIRMS</b>	<b>\$ 42,262,820</b>	<b>\$ 12,842,816</b>	<b>\$ 14,845,357</b>	<b>\$ 14,769,601</b>	<b>\$ 17,227,441</b>	<b>\$ 101,948,034</b>

Business Ownership Classification	2014	2015	2016	2017	2018	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
Black American	0.26%	2.50%	0.98%	0.76%	0.53%	0.76%
Asian American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hispanic American	0.00%	0.05%	0.11%	0.31%	0.34%	0.12%
Native American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>TOTAL MINORITY</b>	<b>0.26%</b>	<b>2.55%</b>	<b>1.08%</b>	<b>1.06%</b>	<b>0.87%</b>	<b>0.89%</b>
Nonminority Female	0.39%	1.36%	1.26%	0.80%	0.64%	0.74%
<b>TOTAL M/WBE</b>	<b>0.65%</b>	<b>3.91%</b>	<b>2.34%</b>	<b>1.86%</b>	<b>1.50%</b>	<b>1.63%</b>
NON-M/WBE	99.35%	96.09%	97.66%	98.14%	98.50%	98.37%
<b>TOTAL FIRMS</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

Griffin & Strong, P.C. 2019

As indicated in Tables 29 and 30, ten (10) M/WBEs represented 2.94% of all firms paid in Goods and Services, averaging \$82,203 per firm. In comparison, 330 non-M/WBE firms represented 97.06% of all firms in Goods and Services, averaging \$271,385 per firm.

Table 29: Prime Utilization- Goods and Services By Number of Firms

MNAA Disparity Study

Fiscal Year	African American		Asian American		Hispanic American		Native American		Total MBE		Nonminority Female		Total M/WBE		Non-M/WBE		TOTAL	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
2014	4	1.74%	0	0.00%	0	0.00%	0	0.00%	4	1.74%	3	1.30%	7	3.04%	223	96.96%	230	28.54%
2015	4	2.53%	0	0.00%	0	0.00%	0	0.00%	4	2.53%	4	2.53%	8	5.06%	150	94.94%	158	19.60%
2016	2	1.43%	0	0.00%	0	0.00%	0	0.00%	2	1.43%	3	2.14%	5	3.57%	135	96.43%	140	17.37%
2017	2	1.45%	0	0.00%	0	0.00%	0	0.00%	2	1.45%	2	1.45%	4	2.90%	134	97.10%	138	17.12%
2018	2	1.43%	0	0.00%	1	0.71%	0	0.00%	3	2.14%	2	1.43%	5	3.57%	135	96.43%	140	17.37%
Total 2014-2018	14	1.74%	0	0.00%	1	0.12%	0	0.00%	15	1.86%	14	1.74%	29	3.60%	777	96.40%	806	100.00%
Total Unique Number of Businesses	5	1.47%	0	0.00%	1	0.29%	0	0.00%	6	1.76%	4	1.18%	10	2.94%	330	97.06%	340	100.00%

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\* Total unique number represents the number of unduplicated firms during the Study Period.

Table 30: Prime Utilization - Goods and Services By Dollars

MNAA Disparity Study

Business Ownership Classification	2014	2015	2016	2017	2018	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Black American	\$ 448,833	\$ 112,586	\$ 1,155	\$ 5,194	\$ 23,148	\$ 590,917
Asian American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hispanic American	\$ -	\$ -	\$ -	\$ -	\$ 16,814	\$ 16,814
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL MINORITY</b>	<b>\$ 448,833</b>	<b>\$ 112,586</b>	<b>\$ 1,155</b>	<b>\$ 5,194</b>	<b>\$ 39,962</b>	<b>\$ 607,731</b>
Nonminority Female	\$ 44,721	\$ 68,783	\$ 35,476	\$ 27,028	\$ 38,289	\$ 214,298
<b>TOTAL M/WBE</b>	<b>\$ 493,554</b>	<b>\$ 181,370</b>	<b>\$ 36,631</b>	<b>\$ 32,223</b>	<b>\$ 78,251</b>	<b>\$ 822,029</b>
NON-M/WBE	\$ 27,904,461	\$ 7,180,813	\$ 9,762,936	\$ 25,640,663	\$ 19,068,396	\$ 89,557,269
<b>TOTAL FIRMS</b>	<b>\$ 28,398,016</b>	<b>\$ 7,362,182</b>	<b>\$ 9,799,568</b>	<b>\$ 25,672,885</b>	<b>\$ 19,146,647</b>	<b>\$ 90,379,298</b>
Business Ownership Classification	2014	2015	2016	2017	2018	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
Black American	1.58%	1.53%	0.01%	0.02%	0.12%	0.65%
Asian American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hispanic American	0.00%	0.00%	0.00%	0.00%	0.09%	0.02%
Native American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>TOTAL MINORITY</b>	<b>1.58%</b>	<b>1.53%</b>	<b>0.01%</b>	<b>0.02%</b>	<b>0.21%</b>	<b>0.67%</b>
Nonminority Female	0.16%	0.93%	0.36%	0.11%	0.20%	0.24%
<b>TOTAL M/WBE</b>	<b>1.74%</b>	<b>2.46%</b>	<b>0.37%</b>	<b>0.13%</b>	<b>0.41%</b>	<b>0.91%</b>
NON-M/WBE	98.26%	97.54%	99.63%	99.87%	99.59%	99.09%
<b>TOTAL FIRMS</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

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**2. Total Utilization (Prime and Subcontractor Payments)**

MNAA primarily tracks subcontracting dollars allocated to M/WBEs but does not track Non-M/WBE subcontractors completely. GSPC conducted a total utilization analysis by combining prime contract dollars with subcontract dollars, after subtracting subcontract dollars from prime contract dollars on a contract by contract basis.

*TOTAL UTILIZATION is the percentage of dollars awarded to combined Prime Contractors (in the Relevant Market) and Subcontractors, by ethnic/gender category, after removing subcontract dollars from prime dollars on a contract by contract basis.*

MBEs received \$17,836,919 during the Study Period, 8.84% of the total Construction and Construction-Related Professional Services (non-federal) dollars, while Nonminority Female owned firms were paid a total of \$14,914,177, 7.42% of the total Construction and Construction-Related Professional Services dollars. M/WBEs received 16.26% of total Construction and Construction-Related Professional Services dollars (Table 31).

*Table 31: Total Utilization - Construction and Construction Related Professional Services (Non-federal) By Dollars (Combined Prime and Subcontractor in the Relevant Market)*

*MNAA Disparity Study*

Business Ownership Classification	2014	2015	2016	2017	2018	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Black American	\$ 226,283	\$ 98,284	\$ 625,013	\$ 6,844,428	\$ 5,815,294	\$ 13,609,302
Asian American	\$ 2,270	\$ 12,208	\$ 55,915	\$ 433,209	\$ 744,037	\$ 1,247,639
Hispanic American	\$ -	\$ -	\$ 223,925	\$ 500,263	\$ 1,752,426	\$ 2,476,613
Native American	\$ -	\$ -	\$ -	\$ -	\$ 503,365	\$ 503,365
<b>TOTAL MINORITY</b>	<b>\$ 228,553</b>	<b>\$ 110,492</b>	<b>\$ 904,852</b>	<b>\$ 7,777,900</b>	<b>\$ 8,815,122</b>	<b>\$ 17,836,919</b>
Nonminority Female	\$ 1,372,884	\$ 1,104,957	\$ 1,698,734	\$ 4,478,011	\$ 6,319,590	\$ 14,974,177
<b>TOTAL M/WBE</b>	<b>\$ 1,601,438</b>	<b>\$ 1,215,448</b>	<b>\$ 2,603,586</b>	<b>\$ 12,255,912</b>	<b>\$ 15,134,712</b>	<b>\$ 32,811,096</b>
NON-M/WBE	\$ 25,891,964	\$ 10,940,420	\$ 18,122,978	\$ 48,278,400	\$ 65,708,992	\$168,942,753
<b>TOTAL FIRMS</b>	<b>\$ 27,493,401</b>	<b>\$ 12,155,868</b>	<b>\$ 20,726,564</b>	<b>\$ 60,534,312</b>	<b>\$ 80,843,704</b>	<b>\$201,753,849</b>
Business Ownership Classification	2014	2015	2016	2017	2018	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
Black American	0.82%	0.81%	3.02%	11.31%	7.19%	6.75%
Asian American	0.01%	0.10%	0.27%	0.72%	0.92%	0.62%
Hispanic American	0.00%	0.00%	1.08%	0.83%	2.17%	1.23%
Native American	0.00%	0.00%	0.00%	0.00%	0.62%	0.25%
<b>TOTAL MINORITY</b>	<b>0.83%</b>	<b>0.91%</b>	<b>4.37%</b>	<b>12.85%</b>	<b>10.90%</b>	<b>8.84%</b>
Nonminority Female	4.99%	9.09%	8.20%	7.40%	7.82%	7.42%
<b>TOTAL M/WBE</b>	<b>5.82%</b>	<b>10.00%</b>	<b>12.56%</b>	<b>20.25%</b>	<b>18.72%</b>	<b>16.26%</b>
NON-M/WBE	94.18%	90.00%	87.44%	79.75%	81.28%	83.74%
<b>TOTAL FIRMS</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>
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MBEs received \$4,887,503 during the Study Period, 5.80% of the total Construction and Construction-Related Professional Services (federal) dollars, while Nonminority Female owned firms were paid a total of \$408,476, 0.48% of the total Construction and Construction-Related Professional Services dollars. M/WBEs received 6.28% of the total Construction and Construction-Related Professional Services federal dollars (Table 32).

*Table 32: Total Utilization - Construction and Construction-Related Services (Federal) by Dollars (Combined Prime & Subcontractor in the Relevant Market)*

*MNAA Disparity Study*

Business Ownership Classification	2014	2015	2016	2017	2018	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Black American	\$ 6,110	\$ 36,471	\$ 567,039	\$ 177,749	\$ 3,680,086	\$ 4,467,457
Asian American	\$ -	\$ -	\$ 19,544	\$ 60,000	\$ 319,187	\$ 398,731
Hispanic American	\$ -	\$ -	\$ -	\$ -	\$ 21,315	\$ 21,315
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL MINORITY</b>	<b>\$ 6,110</b>	<b>\$ 36,471</b>	<b>\$ 586,583</b>	<b>\$ 237,749</b>	<b>\$ 4,020,588</b>	<b>\$ 4,887,503</b>
Nonminority Female	\$ 37,979	\$ 20,001	\$ 172,239	\$ 177,531	\$ 726	\$ 408,476
<b>TOTAL M/WBE</b>	<b>\$ 44,090</b>	<b>\$ 56,473</b>	<b>\$ 758,822</b>	<b>\$ 415,281</b>	<b>\$ 4,021,314</b>	<b>\$ 5,295,979</b>
NON-M/WBE	\$ 21,508,129	\$ 24,056,693	\$ 22,889,969	\$ 12,815,889	\$ (2,237,584)	\$ 79,033,096
<b>TOTAL FIRMS</b>	<b>\$ 21,552,218</b>	<b>\$ 24,113,165</b>	<b>\$ 23,648,791</b>	<b>\$ 13,231,170</b>	<b>\$ 1,783,730</b>	<b>\$ 84,329,075</b>
Business Ownership Classification	2,014	2,015	2,016	2,017	2,018	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
Black American	0.03%	0.15%	2.40%	1.34%	206.31%	5.30%
Asian American	0.00%	0.00%	0.08%	0.45%	17.89%	0.47%
Hispanic American	0.00%	0.00%	0.00%	0.00%	1.19%	0.03%
Native American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>TOTAL MINORITY</b>	<b>0.03%</b>	<b>0.15%</b>	<b>2.48%</b>	<b>1.80%</b>	<b>225.40%</b>	<b>5.80%</b>
Nonminority Female	0.18%	0.08%	0.73%	1.34%	0.04%	0.48%
<b>TOTAL M/WBE</b>	<b>0.20%</b>	<b>0.23%</b>	<b>3.21%</b>	<b>3.14%</b>	<b>225.44%</b>	<b>6.28%</b>
NON-M/WBE	99.80%	99.77%	96.79%	96.86%	-125.44%	93.72%
<b>TOTAL FIRMS</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

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In reference to Professional Services, as shown in Table 33, MBEs received \$1,387,195 during the Study Period, 1.36% of the total Professional Services dollars, while Nonminority Female owned firms were paid a total of \$1,141,247, 1.12% of the total Professional Services dollars. M/WBEs received 2.48% of the total Professional Services dollars.

Table 33: Total Utilization - Professional Services by Dollars (Combined Prime and Subcontractor in the Relevant Market)

*MNAA Disparity Study*

Business Ownership Classification	2014	2015	2016	2017	2018	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Black American	\$ 108,566	\$ 320,989	\$ 198,457	\$ 111,836	\$ 521,826	\$ 1,261,673
Asian American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hispanic American	\$ 110	\$ 5,889	\$ 16,140	\$ 45,143	\$ 58,239	\$ 125,522
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL MINORITY</b>	<b>\$ 108,676</b>	<b>\$ 326,878</b>	<b>\$ 214,598</b>	<b>\$ 156,979</b>	<b>\$ 580,065</b>	<b>\$ 1,387,195</b>
Nonminority Female	\$ 166,783	\$ 175,230	\$ 186,522	\$ 118,042	\$ 494,671	\$ 1,141,247
<b>TOTAL M/WBE</b>	<b>\$ 275,458</b>	<b>\$ 502,108</b>	<b>\$ 401,119</b>	<b>\$ 275,021</b>	<b>\$ 1,074,736</b>	<b>\$ 2,528,443</b>
NON-M/WBE	\$ 41,987,362	\$ 12,340,708	\$ 14,444,238	\$ 14,494,580	\$ 16,152,705	\$ 99,419,591
<b>TOTAL FIRMS</b>	<b>\$ 42,262,820</b>	<b>\$ 12,842,816</b>	<b>\$ 14,845,357</b>	<b>\$ 14,769,601</b>	<b>\$ 17,227,441</b>	<b>\$ 101,948,034</b>
Business Ownership Classification	2014	2015	2016	2017	2018	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
Black American	0.26%	2.50%	1.34%	0.76%	3.03%	1.24%
Asian American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hispanic American	0.00%	0.05%	0.11%	0.31%	0.34%	0.12%
Native American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>TOTAL MINORITY</b>	<b>0.26%</b>	<b>2.55%</b>	<b>1.45%</b>	<b>1.06%</b>	<b>3.37%</b>	<b>1.36%</b>
Nonminority Female	0.39%	1.36%	1.26%	0.80%	2.87%	1.12%
<b>TOTAL M/WBE</b>	<b>0.65%</b>	<b>3.91%</b>	<b>2.70%</b>	<b>1.86%</b>	<b>6.24%</b>	<b>2.48%</b>
NON-M/WBE	99.35%	96.09%	97.30%	98.14%	93.76%	97.52%
<b>TOTAL FIRMS</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>
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With respect to Goods and Services, as shown in Table 34, MBEs received \$607,731 during the Study Period, 0.67% of the total Goods and Services dollars, while Nonminority Female owned firms were paid a total of \$214,298, 0.24% of the total Goods and Services dollars. M/WBEs received 0.91% of the total Goods and Services dollars (Table 34).

Table 34: Total Utilization - Goods and Services By Dollars (Combined Prime and Subcontractor)

*MNAA Disparity Study*

Business Ownership Classification	2014	2015	2016	2017	2018	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Black American	\$ 448,833	\$ 112,586	\$ 1,155	\$ 5,194	\$ 23,148	\$ 590,917
Asian American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hispanic American	\$ -	\$ -	\$ -	\$ -	\$ 16,814	\$ 16,814
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL MINORITY</b>	<b>\$ 448,833</b>	<b>\$ 112,586</b>	<b>\$ 1,155</b>	<b>\$ 5,194</b>	<b>\$ 39,962</b>	<b>\$ 607,731</b>
Nonminority Female	\$ 44,721	\$ 68,783	\$ 35,476	\$ 27,028	\$ 38,289	\$ 214,298
<b>TOTAL M/WBE</b>	<b>\$ 493,554</b>	<b>\$ 181,370</b>	<b>\$ 36,631</b>	<b>\$ 32,223</b>	<b>\$ 78,251</b>	<b>\$ 822,029</b>
NON-M/WBE	\$ 27,904,461	\$ 7,180,813	\$ 9,762,936	\$ 25,640,663	\$ 19,068,396	\$ 89,557,269
<b>TOTAL FIRMS</b>	<b>\$ 28,398,016</b>	<b>\$ 7,362,182</b>	<b>\$ 9,799,568</b>	<b>\$ 25,672,885</b>	<b>\$ 19,146,647</b>	<b>\$ 90,379,298</b>
Business Ownership Classification	2014	2015	2016	2017	2018	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
Black American	1.58%	1.53%	0.01%	0.02%	0.12%	0.65%
Asian American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hispanic American	0.00%	0.00%	0.00%	0.00%	0.09%	0.02%
Native American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>TOTAL MINORITY</b>	<b>1.58%</b>	<b>1.53%</b>	<b>0.01%</b>	<b>0.02%</b>	<b>0.21%</b>	<b>0.67%</b>
Nonminority Female	0.16%	0.93%	0.36%	0.11%	0.20%	0.24%
<b>TOTAL M/WBE</b>	<b>1.74%</b>	<b>2.46%</b>	<b>0.37%</b>	<b>0.13%</b>	<b>0.41%</b>	<b>0.91%</b>
NON-M/WBE	98.26%	97.54%	99.63%	99.87%	99.59%	99.09%
<b>TOTAL FIRMS</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

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**K. Determination of Disparity**

This section of the report addresses the crucial question of whether, and to what extent, there is disparity between the utilization of MBEs/WBEs as measured against their availability in the MNAA marketplace.

*DISPARITY INDICES calculate the difference between the percentage of MNAA’s UTILIZATION of M/WBEs during the Study Period and the AVAILABILITY percentage of M/WBEs.*

**1. Methodology**

The statistical approach to answer this question is to assess the existence and extent of disparity by comparing the M/WBE utilization percentages (by dollars) to the percentage of the total pool of M/WBE firms in the relevant geographic and product

areas. The actual disparity derived as a result of employing this approach is measured by use of a Disparity Index (DI).

The Disparity Index is defined as the ratio of the percentage of M/WBE firms utilized (U) divided by the percentage of such firms available in the marketplace, (A):

Let: U =Utilization percentage for the M/WBE group  
 A =Availability percentage for the M/WBE group  
 DI =Disparity Index for the M/WBE group  
 DI =U/A

The results obtained by a disparity analysis will result in one of three conclusions: overutilization, underutilization or parity. Underutilization is when the Disparity Index is below one. Overutilization is when the Disparity Index is over one. Parity, or the absence of disparity is when the Disparity Index is one (1.00) which indicates that the utilization percentage equals the availability percentage. In situations where there is availability, but no utilization, the corresponding disparity index will be zero. Finally, in cases where there is neither utilization nor availability, the corresponding disparity index is undefined and designated by a dash (-) symbol. Disparity analyses are presented separately for each procurement category and for each race/gender/ethnicity group. They are also disaggregated by year, for each year of the Study Period.

## 2. Prime Disparity Indices

Tables 35-38 illustrate underutilization of M/WBEs in all work categories (Construction and Construction-Related Professional Services (non-federal and federal), Professional Services, and Goods and Services) during every year of the Study Period except Native Americans in Goods and Services. Non-M/WBEs were overutilized every year of the Study.

In Tables 39-42, demonstrate that even in contracts under \$1,000,000, there is underutilization of M/WBEs in all categories, except Hispanic Americans in non-federal Construction and Construction Related Professional Services, and Native Americans in federal Construction and Construction Related Professional Services. Non-M/WBEs were overutilized every year of the Study. Similar disparity results were found for contracts under \$500,000 (see Appendix F).

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Table 35: Disparity Indices - Construction and Construction Related Professional Services (Prime, Non-federal in the Relevant Market)

MNAA Disparity Study

Fiscal Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2014	Black American	0.82%	18.61%	4.42	Underutilization	*	
	Asian American	0.01%	1.66%	0.50	Underutilization	*	
	Hispanic American	0.00%	1.97%	0.00	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	<b>0.83%</b>	<b>22.69%</b>	<b>3.66</b>	<b>Underutilization</b>	<b>*</b>	
	Nonminority Female	4.99%	15.13%	33.01	Underutilization	*	
	<b>TOTAL M/WBE</b>	<b>5.82%</b>	<b>37.82%</b>	<b>15.40</b>	<b>Underutilization</b>	<b>*</b>	
	Non-M/WBE	94.18%	62.18%	151.46	Overutilization		
2015	Black American	0.81%	18.61%	4.35	Underutilization	*	
	Asian American	0.10%	1.66%	6.03	Underutilization	*	
	Hispanic American	0.00%	1.97%	0.00	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	<b>0.91%</b>	<b>22.69%</b>	<b>4.01</b>	<b>Underutilization</b>	<b>*</b>	
	Nonminority Female	9.09%	15.13%	60.08	Underutilization	*	
	<b>TOTAL M/WBE</b>	<b>10.00%</b>	<b>37.82%</b>	<b>26.44</b>	<b>Underutilization</b>	<b>*</b>	
	Non-M/WBE	90.00%	62.18%	144.75	Overutilization		
2016	Black American	0.76%	18.61%	4.10	Underutilization	*	
	Asian American	0.06%	1.66%	3.74	Underutilization	*	
	Hispanic American	0.90%	1.97%	45.76	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	<b>1.72%</b>	<b>22.69%</b>	<b>7.60</b>	<b>Underutilization</b>	<b>*</b>	
	Nonminority Female	5.31%	15.13%	35.11	Underutilization	*	
	<b>TOTAL M/WBE</b>	<b>7.04%</b>	<b>37.82%</b>	<b>18.60</b>	<b>Underutilization</b>	<b>*</b>	
	Non-M/WBE	92.96%	62.18%	149.51	Overutilization		
2017	Black American	0.31%	18.61%	1.69	Underutilization	*	
	Asian American	0.01%	1.66%	0.74	Underutilization	*	
	Hispanic American	0.82%	1.97%	41.81	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	<b>1.15%</b>	<b>22.69%</b>	<b>5.06</b>	<b>Underutilization</b>	<b>*</b>	
	Nonminority Female	3.43%	15.13%	22.65	Underutilization	*	
	<b>TOTAL M/WBE</b>	<b>4.57%</b>	<b>37.82%</b>	<b>12.10</b>	<b>Underutilization</b>	<b>*</b>	
	Non-M/WBE	95.43%	62.18%	153.47	Overutilization		
2018	Black American	1.50%	18.61%	8.07	Underutilization	*	
	Asian American	0.00%	1.66%	0.13	Underutilization	*	
	Hispanic American	2.17%	1.97%	110.22	Overutilization		
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	<b>3.67%</b>	<b>22.69%</b>	<b>16.18</b>	<b>Underutilization</b>	<b>*</b>	
	Nonminority Female	2.90%	15.13%	19.17	Underutilization	*	
	<b>TOTAL M/WBE</b>	<b>6.57%</b>	<b>37.82%</b>	<b>17.38</b>	<b>Underutilization</b>	<b>*</b>	
	Non-M/WBE	93.43%	62.18%	150.26	Overutilization		
Total	Black American	0.94%	18.61%	5.03	Underutilization	*	p <.05
	Asian American	0.02%	1.66%	1.09	Underutilization	*	p <.05
	Hispanic American	1.21%	1.97%	61.41	Underutilization	*	p <.05
	Native American	0.00%	0.45%	0.00	Underutilization	*	p <.05
	<b>TOTAL MBE</b>	<b>2.16%</b>	<b>22.69%</b>	<b>9.52</b>	<b>Underutilization</b>	<b>*</b>	<b>p &lt;.05</b>
	Nonminority Female	3.96%	15.13%	26.20	Underutilization	*	p <.05
	<b>TOTAL M/WBE</b>	<b>6.13%</b>	<b>37.82%</b>	<b>16.19</b>	<b>Underutilization</b>	<b>*</b>	<b>p &lt;.05</b>
	Non-M/WBE	93.87%	62.18%	150.98	Overutilization		

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Table 36: Disparity Indices - Construction and Construction Related Professional Services (Prime, Federal in the Relevant Market)

MNAA Disparity Study

Fiscal Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2014	Black American	0.03%	18.61%	0.15	Underutilization	*	
	Asian American	0.00%	1.66%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.97%	0.00	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	<b>0.03%</b>	<b>22.69%</b>	<b>0.12</b>	<b>Underutilization</b>	<b>*</b>	
	Nonminority Female	0.18%	15.13%	1.16	Underutilization	*	
	<b>TOTAL M/WBE</b>	<b>0.20%</b>	<b>37.82%</b>	<b>0.54</b>	<b>Underutilization</b>	<b>*</b>	
	Non-M/WBE	99.80%	62.18%	160.50	Overutilization		
2015	Black American	0.15%	18.61%	0.81	Underutilization	*	
	Asian American	0.00%	1.66%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.97%	0.00	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	<b>0.15%</b>	<b>22.69%</b>	<b>0.67</b>	<b>Underutilization</b>	<b>*</b>	
	Nonminority Female	0.08%	15.13%	0.55	Underutilization	*	
	<b>TOTAL M/WBE</b>	<b>0.23%</b>	<b>37.82%</b>	<b>0.62</b>	<b>Underutilization</b>	<b>*</b>	
	Non-M/WBE	99.77%	62.18%	160.45	Overutilization		
2016	Black American	0.02%	18.61%	0.10	Underutilization	*	
	Asian American	0.00%	1.66%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.97%	0.00	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	<b>0.02%</b>	<b>22.69%</b>	<b>0.08</b>	<b>Underutilization</b>	<b>*</b>	
	Nonminority Female	0.09%	15.13%	0.56	Underutilization	*	
	<b>TOTAL M/WBE</b>	<b>0.10%</b>	<b>37.82%</b>	<b>0.28</b>	<b>Underutilization</b>	<b>*</b>	
	Non-M/WBE	99.90%	62.18%	160.66	Overutilization		
2017	Black American	0.15%	18.61%	0.80	Underutilization	*	
	Asian American	0.00%	1.66%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.97%	0.00	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	<b>0.15%</b>	<b>22.69%</b>	<b>0.66</b>	<b>Underutilization</b>	<b>*</b>	
	Nonminority Female	0.07%	15.13%	0.49	Underutilization	*	
	<b>TOTAL M/WBE</b>	<b>0.22%</b>	<b>37.82%</b>	<b>0.59</b>	<b>Underutilization</b>	<b>*</b>	
	Non-M/WBE	99.78%	62.18%	160.47	Overutilization		
2018	Black American	0.00%	18.61%	0.00	Underutilization	*	
	Asian American	0.00%	1.66%	0.00	Underutilization	*	
	Hispanic American	1.19%	1.97%	60.76	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	<b>1.19%</b>	<b>22.69%</b>	<b>5.27</b>	<b>Underutilization</b>	<b>*</b>	
	Nonminority Female	0.04%	15.13%	0.27	Underutilization	*	
	<b>TOTAL M/WBE</b>	<b>1.24%</b>	<b>37.82%</b>	<b>3.27</b>	<b>Underutilization</b>	<b>*</b>	
	Non-M/WBE	98.76%	62.18%	158.84	Overutilization		
Total	Black American	0.08%	18.61%	0.43	Underutilization	*	p < .05
	Asian American	0.00%	1.66%	0.00	Underutilization	*	p < .05
	Hispanic American	0.03%	1.97%	1.29	Underutilization	*	p < .05
	Native American	0.00%	0.45%	0.00	Underutilization	*	p < .05
	<b>TOTAL MBE</b>	<b>0.10%</b>	<b>22.69%</b>	<b>0.46</b>	<b>Underutilization</b>	<b>*</b>	<b>p &lt; .05</b>
	Nonminority Female	0.11%	15.13%	0.69	Underutilization	*	p < .05
	<b>TOTAL M/WBE</b>	<b>0.21%</b>	<b>37.82%</b>	<b>0.55</b>	<b>Underutilization</b>	<b>*</b>	<b>p &lt; .05</b>
	Non-M/WBE	99.79%	62.18%	160.49	Overutilization		

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Table 37: Disparity Indices - Professional Services (Prime in the Relevant Market)

MNAA Disparity Study

Fiscal Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2014	Black American	0.26%	15.70%	1.64	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.99%	0.01	Underutilization	*	
	Native American	0.00%	0.18%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.26%	18.59%	1.38	<b>Underutilization</b>	*	
	Nonminority Female	0.39%	10.29%	3.84	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.65%	28.88%	2.26	<b>Underutilization</b>	*	
	Non-M/WBE	99.35%	71.12%	139.69	Overutilization		
2015	Black American	2.50%	15.70%	15.92	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.05%	1.99%	2.31	Underutilization	*	
	Native American	0.00%	0.18%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	2.55%	18.59%	13.69	<b>Underutilization</b>	*	
	Nonminority Female	1.36%	10.29%	13.26	Underutilization	*	
	<b>TOTAL M/WBE</b>	3.91%	28.88%	13.54	<b>Underutilization</b>	*	
	Non-M/WBE	96.09%	71.12%	135.11	Overutilization		
2016	Black American	0.98%	15.70%	6.21	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.11%	1.99%	5.48	Underutilization	*	
	Native American	0.00%	0.18%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.08%	18.59%	5.83	<b>Underutilization</b>	*	
	Nonminority Female	1.26%	10.29%	12.21	Underutilization	*	
	<b>TOTAL M/WBE</b>	2.34%	28.88%	8.11	<b>Underutilization</b>	*	
	Non-M/WBE	97.66%	71.12%	137.32	Overutilization		
2017	Black American	0.76%	15.70%	4.82	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.31%	1.99%	15.39	Underutilization	*	
	Native American	0.00%	0.18%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.06%	18.59%	5.72	<b>Underutilization</b>	*	
	Nonminority Female	0.80%	10.29%	7.77	Underutilization	*	
	<b>TOTAL M/WBE</b>	1.86%	28.88%	6.45	<b>Underutilization</b>	*	
	Non-M/WBE	98.14%	71.12%	137.99	Overutilization		
2018	Black American	0.53%	15.70%	3.36	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.34%	1.99%	17.03	Underutilization	*	
	Native American	0.00%	0.18%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.87%	18.59%	4.65	<b>Underutilization</b>	*	
	Nonminority Female	0.64%	10.29%	6.21	Underutilization	*	
	<b>TOTAL M/WBE</b>	1.50%	28.88%	5.21	<b>Underutilization</b>	*	
	Non-M/WBE	98.50%	71.12%	138.49	Overutilization		
Total	Black American	0.76%	15.70%	4.85	Underutilization	*	p < .05
	Asian American	0.00%	0.72%	0.00	Underutilization	*	p < .05
	Hispanic American	0.12%	1.99%	6.20	Underutilization	*	p < .05
	Native American	0.00%	0.18%	0.00	Underutilization	*	Small Number
	<b>TOTAL MBE</b>	0.89%	18.59%	4.76	<b>Underutilization</b>	*	p < .05
	Nonminority Female	0.74%	10.29%	7.21	Underutilization	*	p < .05
	<b>TOTAL M/WBE</b>	1.63%	28.88%	5.64	<b>Underutilization</b>	*	p < .05
	Non-M/WBE	98.37%	71.12%	138.32	Overutilization		

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Table 38: Disparity Indices - Goods and Services (Prime in the Relevant Market)

MNAA Disparity Study

Fiscal Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2014	Black American	1.58%	10.40%	15.20	Underutilization	*	
	Asian American	0.00%	0.70%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.17%	0.00	Underutilization	*	
	Native American	0.00%	0.35%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.58%	12.62%	<b>12.53</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.16%	5.26%	3.00	Underutilization	*	
	<b>TOTAL M/WBE</b>	1.74%	17.87%	<b>9.72</b>	<b>Underutilization</b>	*	
	Non-M/WBE	98.26%	82.13%	119.65	Overutilization		
2015	Black American	1.53%	10.40%	14.71	Underutilization	*	
	Asian American	0.00%	0.70%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.17%	0.00	Underutilization	*	
	Native American	0.00%	0.35%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.53%	12.62%	<b>12.12</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.93%	5.26%	17.77	Underutilization	*	
	<b>TOTAL M/WBE</b>	2.46%	17.87%	<b>13.78</b>	<b>Underutilization</b>	*	
	Non-M/WBE	97.54%	82.13%	118.76	Overutilization		
2016	Black American	0.01%	10.40%	0.11	Underutilization	*	
	Asian American	0.00%	0.70%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.17%	0.00	Underutilization	*	
	Native American	0.00%	0.35%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.01%	12.62%	<b>0.09</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.36%	5.26%	6.89	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.37%	17.87%	<b>2.09</b>	<b>Underutilization</b>	*	
	Non-M/WBE	99.63%	82.13%	121.31	Overutilization		
2017	Black American	0.02%	10.40%	0.19	Underutilization	*	
	Asian American	0.00%	0.70%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.17%	0.00	Underutilization	*	
	Native American	0.00%	0.35%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.02%	12.62%	<b>0.16</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.11%	5.26%	2.00	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.13%	17.87%	<b>0.70</b>	<b>Underutilization</b>	*	
	Non-M/WBE	99.87%	82.13%	121.61	Overutilization		
2018	Black American	0.12%	10.40%	1.16	Underutilization	*	
	Asian American	0.00%	0.70%	0.00	Underutilization	*	
	Hispanic American	0.09%	1.17%	7.52	Underutilization	*	
	Native American	0.00%	0.35%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.21%	12.62%	<b>1.65</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.20%	5.26%	3.80	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.41%	17.87%	<b>2.29</b>	<b>Underutilization</b>	*	
	Non-M/WBE	99.59%	82.13%	121.27	Overutilization		
Total	Black American	0.65%	10.40%	6.29	Underutilization	*	p < .05
	Asian American	0.00%	0.70%	0.00	Underutilization	*	p < .05
	Hispanic American	0.02%	1.17%	1.59	Underutilization	*	p < .05
	Native American	0.00%	0.35%	0.00	Underutilization	*	p < .05
	<b>TOTAL MBE</b>	0.67%	12.62%	<b>5.33</b>	<b>Underutilization</b>	*	p < .05
	Nonminority Female	0.24%	5.26%	4.51	Underutilization	*	p < .05
	<b>TOTAL M/WBE</b>	0.91%	17.87%	<b>5.09</b>	<b>Underutilization</b>	*	p < .05
	Non-M/WBE	99.09%	82.13%	120.66	Overutilization		

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METROPOLITAN NASHVILLE AIRPORT AUTHORITY DISPARITY STUDY

Table 39: Disparity Indices - Construction and Construction Related Professional Services (Prime, Non-federal) Under \$1 million in the Relevant Market

MNAA Disparity Study

Fiscal Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2014	Black American	0.82%	18.61%	4.42	Underutilization	*	
	Asian American	0.01%	1.66%	0.50	Underutilization	*	
	Hispanic American	0.00%	1.97%	0.00	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	<b>0.83%</b>	<b>22.69%</b>	<b>3.66</b>	<b>Underutilization</b>	<b>*</b>	
	Nonminority Female	4.99%	15.13%	33.01	Underutilization	*	
	<b>TOTAL M/WBE</b>	<b>5.82%</b>	<b>37.82%</b>	<b>15.40</b>	<b>Underutilization</b>	<b>*</b>	
	Non-M/WBE	94.18%	62.18%	151.46	Overutilization		
2015	Black American	0.81%	18.61%	4.35	Underutilization	*	
	Asian American	0.10%	1.66%	6.03	Underutilization	*	
	Hispanic American	0.00%	1.97%	0.00	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	<b>0.91%</b>	<b>22.69%</b>	<b>4.01</b>	<b>Underutilization</b>	<b>*</b>	
	Nonminority Female	9.09%	15.13%	60.08	Underutilization	*	
	<b>TOTAL M/WBE</b>	<b>10.00%</b>	<b>37.82%</b>	<b>26.44</b>	<b>Underutilization</b>	<b>*</b>	
	Non-M/WBE	90.00%	62.18%	144.75	Overutilization		
2016	Black American	0.94%	18.61%	5.03	Underutilization	*	
	Asian American	0.08%	1.66%	4.59	Underutilization	*	
	Hispanic American	1.10%	1.97%	56.15	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	<b>2.12%</b>	<b>22.69%</b>	<b>9.32</b>	<b>Underutilization</b>	<b>*</b>	
	Nonminority Female	6.52%	15.13%	43.08	Underutilization	*	
	<b>TOTAL M/WBE</b>	<b>8.63%</b>	<b>37.82%</b>	<b>22.83</b>	<b>Underutilization</b>	<b>*</b>	
	Non-M/WBE	91.37%	62.18%	146.94	Overutilization		
2017	Black American	0.80%	18.61%	4.29	Underutilization	*	
	Asian American	0.03%	1.66%	1.89	Underutilization	*	
	Hispanic American	2.09%	1.97%	106.32	Overutilization		
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	<b>2.92%</b>	<b>22.69%</b>	<b>12.87</b>	<b>Underutilization</b>	<b>*</b>	
	Nonminority Female	8.71%	15.13%	57.60	Underutilization	*	
	<b>TOTAL M/WBE</b>	<b>11.63%</b>	<b>37.82%</b>	<b>30.76</b>	<b>Underutilization</b>	<b>*</b>	
	Non-M/WBE	88.37%	62.18%	142.12	Overutilization		
2018	Black American	3.67%	18.61%	19.72	Underutilization	*	
	Asian American	0.01%	1.66%	0.33	Underutilization	*	
	Hispanic American	5.30%	1.97%	269.27	Overutilization		
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	<b>8.97%</b>	<b>22.69%</b>	<b>39.53</b>	<b>Underutilization</b>	<b>*</b>	
	Nonminority Female	7.08%	15.13%	46.83	Underutilization	*	
	<b>TOTAL M/WBE</b>	<b>16.06%</b>	<b>37.82%</b>	<b>42.45</b>	<b>Underutilization</b>	<b>*</b>	
	Non-M/WBE	83.94%	62.18%	135.01	Overutilization		
Total	Black American	1.66%	18.61%	8.94	Underutilization	*	p <.05
	Asian American	0.03%	1.66%	1.94	Underutilization	*	p <.05
	Hispanic American	2.15%	1.97%	109.22	Overutilization		
	Native American	0.00%	0.45%	0.00	Underutilization	*	p <.05
	<b>TOTAL MBE</b>	<b>3.84%</b>	<b>22.69%</b>	<b>16.94</b>	<b>Underutilization</b>	<b>*</b>	<b>p &lt;.05</b>
	Nonminority Female	7.05%	15.13%	46.60	Underutilization	*	p <.05
	<b>TOTAL M/WBE</b>	<b>10.89%</b>	<b>37.82%</b>	<b>28.80</b>	<b>Underutilization</b>	<b>*</b>	<b>p &lt;.05</b>
	Non-M/WBE	89.11%	62.18%	143.31	Overutilization		

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METROPOLITAN NASHVILLE AIRPORT AUTHORITY DISPARITY STUDY

Table 40: Disparity Indices - Construction and Construction Related Professional Services (Prime, Federal) Under \$1 million in the Relevant Market

MNAA Disparity Study

Fiscal Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2014	Black American	0.03%	18.61%	0.15	Underutilization	*	
	Asian American	0.00%	1.66%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.97%	0.00	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.03%	22.69%	<b>0.12</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.18%	15.13%	1.16	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.20%	37.82%	<b>0.54</b>	<b>Underutilization</b>	*	
2015	Black American	0.21%	18.61%	1.13	Underutilization	*	
	Asian American	0.00%	1.66%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.97%	0.00	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.21%	22.69%	<b>0.93</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.12%	15.13%	0.76	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.33%	37.82%	<b>0.86</b>	<b>Underutilization</b>	*	
2016	Black American	0.04%	18.61%	0.20	Underutilization	*	
	Asian American	0.00%	1.66%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.97%	0.00	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.04%	22.69%	<b>0.16</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.16%	15.13%	1.09	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.20%	37.82%	<b>0.53</b>	<b>Underutilization</b>	*	
2017	Black American	0.20%	18.61%	1.09	Underutilization	*	
	Asian American	0.00%	1.66%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.97%	0.00	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.20%	22.69%	<b>0.89</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.10%	15.13%	0.66	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.30%	37.82%	<b>0.80</b>	<b>Underutilization</b>	*	
2018	Black American	0.00%	18.61%	0.00	Underutilization	*	
	Asian American	0.00%	1.66%	0.00	Underutilization	*	
	Hispanic American	1.19%	1.97%	60.76	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.19%	22.69%	<b>5.27</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.04%	15.13%	0.27	Underutilization	*	
	<b>TOTAL M/WBE</b>	1.24%	37.82%	<b>3.27</b>	<b>Underutilization</b>	*	
Total	Black American	0.11%	18.61%	0.57	Underutilization	*	p < .05
	Asian American	0.00%	1.66%	0.00	Underutilization	*	p < .05
	Hispanic American	0.03%	1.97%	1.73	Underutilization	*	p < .05
	Native American	0.00%	0.45%	0.00	Underutilization	*	p < .05
	<b>TOTAL MBE</b>	0.14%	22.69%	<b>0.62</b>	<b>Underutilization</b>	*	p < .05
	Nonminority Female	0.14%	15.13%	0.93	Underutilization	*	p < .05
	<b>TOTAL M/WBE</b>	0.28%	37.82%	<b>0.75</b>	<b>Underutilization</b>	*	p < .05
	Non-M/WBE	99.72%	62.18%	160.37	Overutilization		

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Table 41: Disparity Indices - Professional Services (Prime) Under \$1 million in the Relevant Market

MNAA Disparity Study

Fiscal Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2014	Black American	0.26%	15.70%	1.64	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.99%	0.01	Underutilization	*	
	Native American	0.00%	0.18%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.26%	18.59%	1.38	<b>Underutilization</b>	*	
	Nonminority Female	0.39%	10.29%	3.84	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.65%	28.88%	2.26	<b>Underutilization</b>	*	
	Non-M/WBE	99.35%	71.12%	139.69	Overutilization		
2015	Black American	2.50%	15.70%	15.92	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.05%	1.99%	2.31	Underutilization	*	
	Native American	0.00%	0.18%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	2.55%	18.59%	13.69	<b>Underutilization</b>	*	
	Nonminority Female	1.36%	10.29%	13.26	Underutilization	*	
	<b>TOTAL M/WBE</b>	3.91%	28.88%	13.54	<b>Underutilization</b>	*	
	Non-M/WBE	96.09%	71.12%	135.11	Overutilization		
2016	Black American	1.05%	15.70%	6.67	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.12%	1.99%	5.88	Underutilization	*	
	Native American	0.00%	0.18%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.16%	18.59%	6.27	<b>Underutilization</b>	*	
	Nonminority Female	1.35%	10.29%	13.12	Underutilization	*	
	<b>TOTAL M/WBE</b>	2.51%	28.88%	8.71	<b>Underutilization</b>	*	
	Non-M/WBE	97.49%	71.12%	137.07	Overutilization		
2017	Black American	0.76%	15.70%	4.82	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.31%	1.99%	15.39	Underutilization	*	
	Native American	0.00%	0.18%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.06%	18.59%	5.72	<b>Underutilization</b>	*	
	Nonminority Female	0.80%	10.29%	7.77	Underutilization	*	
	<b>TOTAL M/WBE</b>	1.86%	28.88%	6.45	<b>Underutilization</b>	*	
	Non-M/WBE	98.14%	71.12%	137.99	Overutilization		
2018	Black American	0.53%	15.70%	3.36	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.34%	1.99%	17.03	Underutilization	*	
	Native American	0.00%	0.18%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.87%	18.59%	4.65	<b>Underutilization</b>	*	
	Nonminority Female	0.64%	10.29%	6.21	Underutilization	*	
	<b>TOTAL M/WBE</b>	1.50%	28.88%	5.21	<b>Underutilization</b>	*	
	Non-M/WBE	98.50%	71.12%	138.49	Overutilization		
Total	Black American	0.77%	15.70%	4.90	Underutilization	*	p < .05
	Asian American	0.00%	0.72%	0.00	Underutilization	*	p < .05
	Hispanic American	0.12%	1.99%	6.26	Underutilization	*	p < .05
	Native American	0.00%	0.18%	0.00	Underutilization	*	Small Number
	<b>TOTAL MBE</b>	0.89%	18.59%	4.81	<b>Underutilization</b>	*	p < .05
	Nonminority Female	0.75%	10.29%	7.29	Underutilization	*	p < .05
	<b>TOTAL M/WBE</b>	1.64%	28.88%	5.69	<b>Underutilization</b>	*	p < .05
	Non-M/WBE	98.36%	71.12%	138.30	Overutilization		

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Table 42: Disparity Indices - Goods and Services (Prime) Under \$1 million in the Relevant Market

MNAA Disparity Study

Fiscal Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2014	Black American	1.58%	10.40%	15.20	Underutilization	*	
	Asian American	0.00%	0.70%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.17%	0.00	Underutilization	*	
	Native American	0.00%	0.35%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.58%	12.62%	<b>12.53</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.16%	5.26%	3.00	Underutilization	*	
	<b>TOTAL M/WBE</b>	1.74%	17.87%	<b>9.72</b>	<b>Underutilization</b>	*	
	Non-M/WBE	98.26%	82.13%	119.65	Overutilization		
2015	Black American	1.53%	10.40%	14.71	Underutilization	*	
	Asian American	0.00%	0.70%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.17%	0.00	Underutilization	*	
	Native American	0.00%	0.35%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.53%	12.62%	<b>12.12</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.93%	5.26%	17.77	Underutilization	*	
	<b>TOTAL M/WBE</b>	2.46%	17.87%	<b>13.78</b>	<b>Underutilization</b>	*	
	Non-M/WBE	97.54%	82.13%	118.76	Overutilization		
2016	Black American	0.01%	10.40%	0.11	Underutilization	*	
	Asian American	0.00%	0.70%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.17%	0.00	Underutilization	*	
	Native American	0.00%	0.35%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.01%	12.62%	<b>0.09</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.36%	5.26%	6.89	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.37%	17.87%	<b>2.09</b>	<b>Underutilization</b>	*	
	Non-M/WBE	99.63%	82.13%	121.31	Overutilization		
2017	Black American	0.05%	10.40%	0.45	Underutilization	*	
	Asian American	0.00%	0.70%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.17%	0.00	Underutilization	*	
	Native American	0.00%	0.35%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.05%	12.62%	<b>0.37</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.24%	5.26%	4.63	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.29%	17.87%	<b>1.62</b>	<b>Underutilization</b>	*	
	Non-M/WBE	99.71%	82.13%	121.41	Overutilization		
2018	Black American	0.19%	10.40%	1.81	Underutilization	*	
	Asian American	0.00%	0.70%	0.00	Underutilization	*	
	Hispanic American	0.14%	1.17%	11.68	Underutilization	*	
	Native American	0.00%	0.35%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.32%	12.62%	<b>2.57</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.31%	5.26%	5.91	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.64%	17.87%	<b>3.55</b>	<b>Underutilization</b>	*	
	Non-M/WBE	99.36%	82.13%	120.99	Overutilization		
Total	Black American	0.86%	10.40%	8.24	Underutilization	*	p < .05
	Asian American	0.00%	0.70%	0.00	Underutilization	*	p < .05
	Hispanic American	0.02%	1.17%	2.09	Underutilization	*	p < .05
	Native American	0.00%	0.35%	0.00	Underutilization	*	p < .05
	<b>TOTAL MBE</b>	0.88%	12.62%	<b>6.98</b>	<b>Underutilization</b>	*	p < .05
	Nonminority Female	0.31%	5.26%	5.91	Underutilization	*	p < .05
	<b>TOTAL M/WBE</b>	1.19%	17.87%	<b>6.67</b>	<b>Underutilization</b>	*	p < .05
	Non-M/WBE	98.81%	82.13%	120.31	Overutilization		

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**3. Prime and Subcontractor Utilization Disparity Indices**

In Table 43-44, there is a total underutilization of M/WBEs (Prime & Subcontractor) in all categories for the entire study period. Non-M/WBEs were overutilized every year of the Study.

*Table 43: Disparity Indices – Non-federal Construction and Construction Related Professional Services (Combined Prime and Subcontractor) in the Relevant Market*

*MNAA Disparity Study*

Fiscal Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2014	Black American	0.82%	18.61%	4.42	Underutilization	*	
	Asian American	0.01%	1.66%	0.50	Underutilization	*	
	Hispanic American	0.00%	1.97%	0.00	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.83%	22.69%	<b>3.66</b>	<b>Underutilization</b>	*	
	Nonminority Female	4.99%	15.13%	33.01	Underutilization	*	
	<b>TOTAL M/WBE</b>	5.82%	37.82%	<b>15.40</b>	<b>Underutilization</b>	*	
	Non-M/WBE	94.18%	62.18%	151.46	Overutilization		
2015	Black American	0.81%	18.61%	4.35	Underutilization	*	
	Asian American	0.10%	1.66%	6.03	Underutilization	*	
	Hispanic American	0.00%	1.97%	0.00	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.91%	22.69%	<b>4.01</b>	<b>Underutilization</b>	*	
	Nonminority Female	9.09%	15.13%	60.08	Underutilization	*	
	<b>TOTAL M/WBE</b>	10.00%	37.82%	<b>26.44</b>	<b>Underutilization</b>	*	
	Non-M/WBE	90.00%	62.18%	144.75	Overutilization		
2016	Black American	3.02%	18.61%	16.21	Underutilization	*	
	Asian American	0.27%	1.66%	16.21	Underutilization	*	
	Hispanic American	1.08%	1.97%	54.93	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	4.37%	22.69%	<b>19.24</b>	<b>Underutilization</b>	*	
	Nonminority Female	8.20%	15.13%	54.18	Underutilization	*	
	<b>TOTAL M/WBE</b>	12.56%	37.82%	<b>33.21</b>	<b>Underutilization</b>	*	
	Non-M/WBE	87.44%	62.18%	140.62	Overutilization		
2017	Black American	11.31%	18.61%	60.76	Underutilization	*	
	Asian American	0.72%	1.66%	43.00	Underutilization	*	
	Hispanic American	0.83%	1.97%	42.02	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	12.85%	22.69%	<b>56.62</b>	<b>Underutilization</b>	*	
	Nonminority Female	7.40%	15.13%	48.90	Underutilization	*	
	<b>TOTAL M/WBE</b>	20.25%	37.82%	<b>53.53</b>	<b>Underutilization</b>	*	
	Non-M/WBE	79.75%	62.18%	128.27	Overutilization		
2018	Black American	7.19%	18.61%	38.66	Underutilization	*	
	Asian American	0.92%	1.66%	55.30	Underutilization	*	
	Hispanic American	2.17%	1.97%	110.22	Overutilization		
	Native American	0.62%	0.45%	137.19	Overutilization		
	<b>TOTAL MBE</b>	10.90%	22.69%	<b>48.05</b>	<b>Underutilization</b>	*	
	Nonminority Female	7.82%	15.13%	51.67	Underutilization	*	
	<b>TOTAL M/WBE</b>	18.72%	37.82%	<b>49.50</b>	<b>Underutilization</b>	*	
	Non-M/WBE	81.28%	62.18%	130.72	Overutilization		
Total	Black American	6.75%	18.61%	36.25	Underutilization	*	p <.05
	Asian American	0.62%	1.66%	37.16	Underutilization	*	p <.05
	Hispanic American	1.23%	1.97%	62.42	Underutilization	*	p <.05
	Native American	0.25%	0.45%	54.97	Underutilization	*	
	<b>TOTAL MBE</b>	8.84%	22.69%	<b>38.96</b>	<b>Underutilization</b>	*	p <.05
	Nonminority Female	7.42%	15.13%	49.06	Underutilization	*	p <.05
	<b>TOTAL M/WBE</b>	16.26%	37.82%	<b>43.00</b>	<b>Underutilization</b>	*	p <.05
	Non-M/WBE	83.74%	62.18%	134.67	Overutilization		

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Table 44: Disparity Indices – Federal Construction and Construction Related Professional Services (Combined Prime and Subcontractor) in the Relevant Market

MNAA Disparity Study

Fiscal Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2014	Black American	0.03%	18.61%	0.15	Underutilization	*	
	Asian American	0.00%	1.66%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.97%	0.00	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.03%	22.69%	<b>0.12</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.18%	15.13%	1.16	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.20%	37.82%	<b>0.54</b>	<b>Underutilization</b>	*	
	Non-M/WBE	99.80%	62.18%	160.50	Overutilization		
2015	Black American	0.15%	18.61%	0.81	Underutilization	*	
	Asian American	0.00%	1.66%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.97%	0.00	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.15%	22.69%	<b>0.67</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.08%	15.13%	0.55	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.23%	37.82%	<b>0.62</b>	<b>Underutilization</b>	*	
	Non-M/WBE	99.77%	62.18%	160.45	Overutilization		
2016	Black American	2.40%	18.61%	12.89	Underutilization	*	
	Asian American	0.08%	1.66%	4.97	Underutilization	*	
	Hispanic American	0.00%	1.97%	0.00	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	2.48%	22.69%	<b>10.93</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.73%	15.13%	4.81	Underutilization	*	
	<b>TOTAL M/WBE</b>	3.21%	37.82%	<b>8.48</b>	<b>Underutilization</b>	*	
	Non-M/WBE	96.79%	62.18%	155.67	Overutilization		
2017	Black American	1.34%	18.61%	7.22	Underutilization	*	
	Asian American	0.45%	1.66%	27.25	Underutilization	*	
	Hispanic American	0.00%	1.97%	0.00	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.80%	22.69%	<b>7.92</b>	<b>Underutilization</b>	*	
	Nonminority Female	1.34%	15.13%	8.87	Underutilization	*	
	<b>TOTAL M/WBE</b>	3.14%	37.82%	<b>8.30</b>	<b>Underutilization</b>	*	
	Non-M/WBE	96.86%	62.18%	155.78	Overutilization		
2018	Black American	206.31%	18.61%	1108.73	Overutilization		
	Asian American	17.89%	1.66%	1075.29	Overutilization		
	Hispanic American	1.19%	1.97%	60.76	Underutilization	*	
	Native American	0.00%	0.45%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	225.40%	22.69%	<b>993.28</b>	<b>Overutilization</b>		
	Nonminority Female	0.04%	15.13%	0.27	Underutilization	*	
	<b>TOTAL M/WBE</b>	225.44%	37.82%	<b>596.07</b>	<b>Overutilization</b>		
	Non-M/WBE	0.00%	62.18%	0.00	Underutilization	*	
Total	Black American	5.30%	18.61%	28.47	Underutilization	*	p < .05
	Asian American	0.47%	1.66%	28.41	Underutilization	*	p < .05
	Hispanic American	0.03%	1.97%	1.29	Underutilization	*	p < .05
	Native American	0.00%	0.45%	0.00	Underutilization	*	p < .05
	<b>TOTAL MBE</b>	5.80%	22.69%	<b>25.54</b>	<b>Underutilization</b>	*	p < .05
	Nonminority Female	0.48%	15.13%	3.20	Underutilization	*	p < .05
	<b>TOTAL M/WBE</b>	6.28%	37.82%	<b>16.60</b>	<b>Underutilization</b>	*	p < .05
	Non-M/WBE	93.72%	62.18%	150.73	Overutilization		

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Table 45: Disparity Indices - Professional Services (Combined Prime and Subcontractor) in the Relevant Market

MNAA Disparity Study

Fiscal Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2014	Black American	0.26%	15.70%	1.64	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.99%	0.01	Underutilization	*	
	Native American	0.00%	0.18%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.26%	18.59%	1.38	<b>Underutilization</b>	*	
	Nonminority Female	0.39%	10.29%	3.84	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.65%	28.88%	2.26	<b>Underutilization</b>	*	
	Non-M/WBE	99.35%	71.12%	139.69	Overutilization		
2015	Black American	2.50%	15.70%	15.92	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.05%	1.99%	2.31	Underutilization	*	
	Native American	0.00%	0.18%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	2.55%	18.59%	13.69	<b>Underutilization</b>	*	
	Nonminority Female	1.36%	10.29%	13.26	Underutilization	*	
	<b>TOTAL M/WBE</b>	3.91%	28.88%	13.54	<b>Underutilization</b>	*	
	Non-M/WBE	96.09%	71.12%	135.11	Overutilization		
2016	Black American	1.34%	15.70%	8.51	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.11%	1.99%	5.48	Underutilization	*	
	Native American	0.00%	0.18%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.45%	18.59%	7.78	<b>Underutilization</b>	*	
	Nonminority Female	1.26%	10.29%	12.21	Underutilization	*	
	<b>TOTAL M/WBE</b>	2.70%	28.88%	9.36	<b>Underutilization</b>	*	
	Non-M/WBE	97.30%	71.12%	136.81	Overutilization		
2017	Black American	0.76%	15.70%	4.82	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.31%	1.99%	15.39	Underutilization	*	
	Native American	0.00%	0.18%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.06%	18.59%	5.72	<b>Underutilization</b>	*	
	Nonminority Female	0.80%	10.29%	7.77	Underutilization	*	
	<b>TOTAL M/WBE</b>	1.86%	28.88%	6.45	<b>Underutilization</b>	*	
	Non-M/WBE	98.14%	71.12%	137.99	Overutilization		
2018	Black American	3.03%	15.70%	19.29	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.34%	1.99%	17.03	Underutilization	*	
	Native American	0.00%	0.18%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	3.37%	18.59%	18.11	<b>Underutilization</b>	*	
	Nonminority Female	2.87%	10.29%	27.91	Underutilization	*	
	<b>TOTAL M/WBE</b>	6.24%	28.88%	21.60	<b>Underutilization</b>	*	
	Non-M/WBE	93.76%	71.12%	131.84	Overutilization		
Total	Black American	1.24%	15.70%	7.88	Underutilization	*	p < .05
	Asian American	0.00%	0.72%	0.00	Underutilization	*	p < .05
	Hispanic American	0.12%	1.99%	6.20	Underutilization	*	p < .05
	Native American	0.00%	0.18%	0.00	Underutilization	*	Small Number
	<b>TOTAL MBE</b>	1.36%	18.59%	7.32	<b>Underutilization</b>	*	p < .05
	Nonminority Female	1.12%	10.29%	10.88	Underutilization	*	p < .05
	<b>TOTAL M/WBE</b>	2.48%	28.88%	8.59	<b>Underutilization</b>	*	p < .05
	Non-M/WBE	97.52%	71.12%	137.12	Overutilization		

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Table 46: Disparity Indices - Goods and Services (Combined Prime and Subcontractor) in the Relevant Market

MNAA Disparity Study

Fiscal Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2014	Black American	1.58%	10.40%	15.20	Underutilization	*	
	Asian American	0.00%	0.70%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.17%	0.00	Underutilization	*	
	Native American	0.00%	0.35%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.58%	12.62%	<b>12.53</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.16%	5.26%	3.00	Underutilization	*	
	<b>TOTAL M/WBE</b>	1.74%	17.87%	<b>9.72</b>	<b>Underutilization</b>	*	
	Non-M/WBE	98.26%	82.13%	119.65	Overutilization		
2015	Black American	1.53%	10.40%	14.71	Underutilization	*	
	Asian American	0.00%	0.70%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.17%	0.00	Underutilization	*	
	Native American	0.00%	0.35%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.53%	12.62%	<b>12.12</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.93%	5.26%	17.77	Underutilization	*	
	<b>TOTAL M/WBE</b>	2.46%	17.87%	<b>13.78</b>	<b>Underutilization</b>	*	
	Non-M/WBE	97.54%	82.13%	118.76	Overutilization		
2016	Black American	0.01%	10.40%	0.11	Underutilization	*	
	Asian American	0.00%	0.70%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.17%	0.00	Underutilization	*	
	Native American	0.00%	0.35%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.01%	12.62%	<b>0.09</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.36%	5.26%	6.89	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.37%	17.87%	<b>2.09</b>	<b>Underutilization</b>	*	
	Non-M/WBE	99.63%	82.13%	121.31	Overutilization		
2017	Black American	0.02%	10.40%	0.19	Underutilization	*	
	Asian American	0.00%	0.70%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.17%	0.00	Underutilization	*	
	Native American	0.00%	0.35%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.02%	12.62%	<b>0.16</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.11%	5.26%	2.00	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.13%	17.87%	<b>0.70</b>	<b>Underutilization</b>	*	
	Non-M/WBE	99.87%	82.13%	121.61	Overutilization		
2018	Black American	0.12%	10.40%	1.16	Underutilization	*	
	Asian American	0.00%	0.70%	0.00	Underutilization	*	
	Hispanic American	0.09%	1.17%	7.52	Underutilization	*	
	Native American	0.00%	0.35%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.21%	12.62%	<b>1.65</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.20%	5.26%	3.80	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.41%	17.87%	<b>2.29</b>	<b>Underutilization</b>	*	
	Non-M/WBE	99.59%	82.13%	121.27	Overutilization		
Total	Black American	0.65%	10.40%	6.29	Underutilization	*	p < .05
	Asian American	0.00%	0.70%	0.00	Underutilization	*	p < .05
	Hispanic American	0.02%	1.17%	1.59	Underutilization	*	p < .05
	Native American	0.00%	0.35%	0.00	Underutilization	*	p < .05
	<b>TOTAL MBE</b>	0.67%	12.62%	<b>5.33</b>	<b>Underutilization</b>	*	p < .05
	Nonminority Female	0.24%	5.26%	4.51	Underutilization	*	p < .05
	<b>TOTAL M/WBE</b>	0.91%	17.87%	<b>5.09</b>	<b>Underutilization</b>	*	p < .05
	Non-M/WBE	99.09%	82.13%	120.66	Overutilization		

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## L. Determining the Significance of Disparity Indices

The determination that a particular ethnic or gender group has been overutilized or underutilized is not, standing alone, proof of discrimination. Typically, the determination of whether a disparity is “statistically significant” can be based on the depth of the disparity in that any disparity index that is less than .80 is considered to be a statistically significant underutilization and any disparity index over 1.10 is considered to be a statistically significant overutilization. The disparity indices impact as designated in the tables above as “overutilization”, “underutilization”, or “parity” have been bolded to indicate such statistically significant impact.

Typically, the determination of whether a disparity is “substantially significant” can be based on any disparity index that is less than .80. Further, GSPC uses a Chi-squared statistical test that considers whether or not the typical disparity index across all vendor categories is equal to unity. This constitutes a null hypothesis of “parity” and the test estimates the probability that the typical disparity index departs from unity, and the magnitude of the calculated test statistic indicates whether there is typically underutilization or overrepresentation. Statistical significance tests were performed for each disparity index derived for each M/WBE group, and in each procurement category. This approach to statistical significance is consistent with the case law and the Transportation Research Board approach to statistical significance in disparity studies.

The existence of a statistically significant disparity between the availability and utilization of minority or Nonminority Female owned businesses that is determined to likely be the result of the owners’ race, gender, or ethnicity will impact the recommendations provided as a result of this study. GSPC will, in such a case, make recommendations for appropriate and narrowly-tailored race/ethnicity/gender-neutral remedies for this discrimination to give all firms equal access to public contracting with MNA. GSPC will also, if appropriate, recommend narrowly-tailored race/ethnicity/gender-conscious remedies. If no statistically significant disparity is found to exist or if such a disparity is not determined to be a likely result of firm owners’ race, ethnicity, or gender on their success in the marketplace, GSPC may still make recommendations to support the continuation of engagement, outreach, small business development, and non-discrimination policies in the procurement processes of the MNA.

MNA currently has an MWBE program area that includes the whole State of Tennessee (“Program Area”). In Appendix J, GSPC conducted an analysis of the current Program Area and determined that there were statistically significant disparities and anecdotal support to keep its Program Area, the State of Tennessee.

## M. Conclusion

Generally, every M/WBE group was underutilized in each category in total throughout the Study Period as prime contractors, in total utilization of prime and subcontractors combined. All of the analysis demonstrated statistically significant underutilization of every M/WBE group in each category, with few exceptions.

## VI. ANALYSIS OF PUBLIC CONTRACTING DISPARITIES IN THE METROPOLITAN NASHVILLE AIRPORT AUTHORITY MARKETPLACE

### A. Introduction

In this section GSPC considers the market entry, private sector, public contracting and subcontracting outcomes and experiences of Small, Minority, Nonminority Females, and Disadvantaged Business Enterprises (“SMWDBE”) relative to non-SMWDBE owned firms in the relevant Nashville market area. Our analysis utilizes data from business firms that are either willing, able, or have actually contracted/subcontracted with MNA, with the aim of determining if the likelihood of successful contracting/subcontracting opportunities—actual and perceived—with MNA is conditioned, in a statistically significant manner, on the race, ethnicity, or gender status of firm owners. Such an analysis is a useful and important complement to estimating simple disparity indices, which assume all things important for success and failure are equal among business firms competing for public contracts, and are based on unconditional moments—statistics that do not necessarily inform causality or the source of differences across such statistics. As simple disparity indices do not condition on possible confounders of new firm entry, and success and failure in public sector contracting/subcontracting by business firms, they are only suggestive of disparate treatment, and their implied likelihood of success or failure could be biased.

Our analysis suggests that there are possible confounders of success and failure in the entry of new firms in the market and public sector contracting/subcontracting that are sources of diversity among business firms that lead to differences in success and failure. Failure to condition on the sources of diversity in success/failure in new firm formation and public sector contracting/subcontracting outcomes can leave simple disparity indices devoid of substantive policy implications as they ignore the extent to which firm owner race/ethnicity/gender characteristics are causal factors. Disparate outcomes could possibly reflect in part or in whole outcomes driven by disparate business firm characteristics that matter fundamentally for success/failure in the formation of new firms and public sector contracting/subcontracting outcomes. If the race, ethnicity, or gender status of a firm owner conditions lower likelihoods of success/failure, this would be suggestive of these salient and mostly unchangeable characteristics causing the observed disparities.

A broad context for considering disparities by firm ownership status can be informed by considering private sector outcomes in the relevant Nashville market area. In general, the success and failure of SMWDBE owned firms in public contracting could be conditioned by their outcomes in the private sector regarding their revenue generating capacity. The value of a descriptive private sector analysis is that it situates disparity analyses in the “but-for-justification.” Ian Ayres and Frederick Vars (1998), in their consideration of the constitutionality of public affirmative programs suggest a scenario in which private suppliers of financing systematically exclude or charge higher prices to SMWDBE businesses, which potentially increases the cost of which SMWDBE owned businesses can provide services required under public contracts relative to non-SMWDBE owned businesses.<sup>55</sup> This private discrimination referenced by Ayres and Vars means that SMWDBE owned firms may only have recourse to higher cost financing due to

<sup>55</sup> See: Ayres, Ian, and Fredrick E. Vars. 1998, “When does private discrimination justify public affirmative action?” *Columbia Law Review*, 98: 1577-1641.

facing discrimination in private sector capital markets, which compromises the competitiveness of their bids. Such a perspective on discrimination suggests that barriers faced by SMWDBE owned firms in the private sector can rationalize targeted contracting programs by political jurisdictions, as the counterfactual is that in the *absence of such private sector discrimination*, they would be able to compete with other firms in bidding for public contracts.

Table 46 reports on firm ownership type and revenue for the Nashville-Davidson-Murfreesboro Census Area—the relevant market area for the GSPC analysis—from the US Census Bureau’s 2012 Survey of Business Owners (SBO).<sup>56</sup> The SBO Data are collected every 5 years since 1972, for years ending in "2" and "7" as part of the economic census. The program began as a special project for SMWDBE owned businesses in 1969 and incorporated into the economic census in 1972 along with the Survey of Nonminority Female owned Businesses. The GSPC descriptive private sector analysis considers the percentage of representation in the population of firms and revenue across the firm ownership type classifications.

For the Nashville market area, Table 47 reveals that relative to Non-MWDBE firms, the revenue shares of each MWDBE owned firm never exceed 4.9 percent (Nonminority Females).<sup>57</sup> With the exception of firms owned by Asians, the revenue shares of other minority and Nonminority Female owned Business Enterprises (MWBES) never exceeds 6 tenths of one percent. This is particularly a stark finding for firms owned by MWBEs, as each represent approximately 15 percent respectively of all firms in the Nashville market area, but each have revenue shares far smaller than their firm representation shares. Relative to firms owned by Non-MWDBEs in the Nashville market area, exclusive of Nonminority Female owned firms, the M/WBE revenue shares are an order of magnitude below their firm representation shares, consistent with and suggestive of—but not necessarily causal evidence for—MWBEs facing discriminatory barriers in the private sector of the Nashville market area.<sup>58</sup>

<sup>56</sup> SBO data are publicly available at <http://www.census.gov/programs-surveys/sbo/data.html>

<sup>57</sup> The percentages do not “add-up” to one, as the women ownership category is not “mutually exclusive” of the other race/ethnicity categories.

<sup>58</sup> This can be ascertained by simply computing the ration of each MWSDs firm share to total revenue share. For example, in the case of firms owned by African-Americans, this ratio is approximately 6percent, in contrast to approximately 41 percent for firms owned by Whites. In this context, relative to firms owned by Whites, firms owned by African-Americans are far more “revenue underrepresented” with respect to their firm share .

Table 47: Firm Ownership Type and Revenue Characteristics for Nashville, TN Market Area.

2014 Survey of Business Owners  
MNAA Disparity Study

Ownership Structure	Number of Firms	Percentage of all Firms (approximate)	Market Area Total Revenue (\$1,000)	Percentage of Market Area Total Revenue (approximate)
All	176,330	100	215,066,306	100
Nonminority Females	58,3727	.3311	10,565,995	.0488
White	151,357	.8584	69,682,792	.3265
African-American	13,471	.0764	787,666	.0037
American Indian & Alaskan Native	1,324	.0075	441,563	.0019
Asian	5,369	.0304	1,828,743	.0084
Asian Indian	1,385	.0078	863,442	.0042
Chinese	663	.0038	270,257	.0014
Filipino	266	.0015	34,905	.0001
Japanese	235	.0013	155,936	.0028
Korean	725	.0041	295,522	.0014
Vietnamese	1,255	.0071	71,891	.0003
Other Asian	951	.0054	133,539	.0005
Native Hawaiian & Other Pacific Islander	90	.0005	19,907	.0001
Hispanic American	6,383	.0362	1,424,535	.0065
Some Other Race	2,831	.0160	226,753	.0009
Publicly Held and not classifiable by race, gender, ethnicity	3,721	.0211	142,019,372	.6602

Source: US Census Bureau 2014 Survey of Business Owners.

Given that publicly held firms are not usually classifiable by M/WBE status, and account for a disproportionate share of revenues, a simple comparison of a M/WBE firm and revenue share may not inform the existence of any private sector disparities with precision. In this context, the ratio of a M/WBE firm’s market share to revenue share may be more informative of disparities. For example, in the case of firms owned by Black Americans, this ratio is (.0764)/(.0037) or approximately 20.65, suggesting that the revenue share of firms owned by Black Americans would have to increase by a factor of approximately 21 to achieve firm share parity in the Nashville market area.

Table 48 replicates Table 47 to the extent the SBO data enable, for the Nashville market area construction sector—a sector which is a significant venue for public sector contracting.<sup>59</sup> As in the case of the private sector overall in Table 48, in general, all SMWDBE owned construction firms have revenue shares below

<sup>59</sup> For the construction sector, 2013 SBO data do not provide detailed disaggregated race/ethnicity detail to the same extent as for all sectors. <sup>a</sup> In addition, the construction sector does not disaggregate by type of construction firm (e.g. design, engineering, etc.) Value suppressed to preserve confidentiality as a result of very few firms or there are one or two large firms that dominate the statistic.

their firm representation shares, consistent with and suggestive of—but not necessarily causal evidence for—MWBEs facing discriminatory barriers in the private construction sector of the Nashville market area. For five of the M/WBE construction firms in the Nashville market area, the revenues were suppressed due to confidentiality issues. However, the firm parity for firms owned by African-Americans is perhaps instructive of disparities in the construction market. In this case the firm revenue share disparity ratio is (.0267)/(.0026) or approximately 10.27, suggesting that the revenue share of construction firms owned by African-Americans would have to increase by a least a factor of approximately 10 to achieve firm share parity in the Nashville market area.

Table 48: Firm Ownership Type and Revenue Characteristics for Nashville, TN Market Area Construction Sector 2012 Survey of Business Owners

MNAA Disparity Study

Ownership Structure	Number of Firms	Percentage of all Firms (approximate)	Market Area Total Revenue (\$1,000)	Percentage of Market Area Total Revenue (approximate)
All	21,775	100	11,384,651	100
Nonminority Females	1,820	.0836	588,698	.0526
White	19,269	.8849	8,765,939	.7788
African-American	581	.0267	35,602	.0026
American Indian & Alaskan Native	89	.0041	105,420	.0088
Asian	199	.0091	Suppressed <sup>a</sup>	Suppressed <sup>a</sup>
Other Asian	65	.0029	Suppressed <sup>a</sup>	Suppressed <sup>a</sup>
Chinese	39	.0018	Suppressed <sup>a</sup>	Suppressed <sup>a</sup>
Some Other Race	1,117	.0513	72,441	.0061
Japanese	32	.0015	Suppressed <sup>a</sup>	Suppressed <sup>a</sup>
Korean	60	.0027	Suppressed <sup>a</sup>	Suppressed <sup>a</sup>
Publicly Held and not classifiable by race, gender, ethnicity	101	.0046	2,372,979	.2105

Source: US Census Bureau 2012 Survey of Business Owners. <sup>a</sup>Value suppressed to preserve confidentiality as a result of very few firms or there are one or two large firms that dominate the statistic.

Overall, the descriptive summary in Tables 47-48 suggest that in the Nashville market area private sector, MWBEs face barriers that translate into lower firm revenues in general, and in the construction sector. In general, if being an M/WBE in the Nashville market area private sector is associated with lower firm revenue, this lends some support to the “but-for” justification for affirmative action in public procurement. Lower revenues for MWBEs in the Nashville market area is suggestive of private discrimination that undermines their capacity to compete with non-SMWDBE owned firms for public contracting opportunities. This could motivate a private discrimination justification for Affirmative Action in the MNAA procurement policies, otherwise MNAA is potentially a *passive participant* in private discrimination against MWBEs with respect to its procurement practices.



To explicitly examine potential disparities in the rates of business ownership in the Nashville market area, GSPC estimated the parameters of a Logit model using 2016 American Community Survey (ACS) data.<sup>60</sup> The ACS is a project of the U.S. Census Bureau that has replaced the decennial census as the key source of information about American population and housing characteristics. The 2016 ACS is an approximately 1-in-100 weighted public use sample consisting of U.S. households with the smallest identifiable unit being the Public Use Microdata Unit (PUMA), which is a geography containing at least 100,000 individuals. The specification of each model controls for those variables in customary in the literature that are utilized to explain self-employment, so as to estimate the effects of M/WBE status on self-employment while minimizing and/or eliminating confounding factors.<sup>61</sup> GSPC determines statistical significance on the basis of the estimated coefficient's probability value—or P-value. The P-value is the probability of obtaining an estimate of the coefficient by chance alone, assuming that the null hypothesis of the variable having a zero effect is true. As a convention, GSPC rejects the null hypothesis of no effect, and concludes the estimated coefficient is statistically significant as long as  $P\text{-value} \leq .10$ , which we highlight in bold for all parameter estimates

In the GSPC Logit model of self-employment, the estimated parameters are odds ratios, and when greater (less) than unity indicate that having a particular characteristics increases (decreases) the likelihood of being self-employed. In the case of the M/WBE status indicators (e.g. Black American, Woman), the excluded category is Non-SMWDBE Males, and a positive (negative) odds ratio indicates that relative to Non-SMWDBE Males, having that M/WBE characteristic increases (decreases) the likelihood of being self-employed in the Nashville market area.

Table 49 reports parameter estimates across all business sectors in the Nashville market area. The estimated odds ratios with statistical significance suggest that relative to Nonminority Males, Nonminority Females, Black Americans, Hispanic Americans, and Pacific Islander Americans are less likely to be self-employed in the Nashville market area. Other Race Americans on the otherhand, are relatively more likely to be self-employed. In the case of Nonminority Females, Black Americans, Hispanic Americans, and Pacific Islander Americans, these odds ratios estimates are suggestive of barriers to self-employment for these type of MWBEs in the Nashville market area, that could be ameliorated through successful M/WBE public contracting programs that induce M/WBE firm entry as Chatterji, Chay, and Fairlie (2014) find that the self-employment rate of Black Americans is increasing with respect to the provisioning and establishment of M/WBE set-aside public procurement programs.<sup>62</sup>

<sup>60</sup> ACS data are publicly available at <https://usa.ipums.org/usa/>. See: Steven Ruggles, Katie Genadek, Ronald Geoked, Josiah Grover, and Matthew Sobek. 2017. *Integrated Public Use Microdata Series: Version 7.0* [dataset]. Minneapolis: University of Minnesota. <https://doi.org/10.18128/DO10.V7.0>.

<sup>61</sup> See: Grilo, Isabel, and Roy Thurik. 2008. "Determinants of Entrepreneurial Engagement Levels in Europe and the US." *Industrial and Corporate Change* 17: pp. 1113-1145, and Van der Sluis, Justin, Mirjam Van Praag, and Wim Vijverberg. 2008. "Education and Entrepreneurship Selection and Performance: A Review of the Empirical Literature." *Journal of economic surveys* 22: pp. 795-841.

<sup>62</sup> Chatterji, Aaron K., Kenneth Y. Chay, and Robert W. Fairlie. 2014. "The Impact of City Contracting Set-asides on Black Self-employment and Employment." *Journal of Labor Economics* 32: pp. 507-561.

Table 50 reports parameter estimates for the construction sector in the Nashville market area—a important sector in the market for public procurement. The estimated odds ratios with statistical significance suggest that relative to Non-SMWDBE Males, Nonminority Females, Black Americans, Hispanic Americans, and Asian Americans are less likely to be self-employed in the Nashville market area. The estimated odds ratios estimates are suggestive of barriers to self-employment in the construction sector for these type of MWBEs in the Nashville market area that could be ameliorated through successful M/WBE public contracting programs that induce M/WBE firm entry, as Marion (2009) finds that the self-employment rate of Black Americans in construction is increasing with respect to the provisioning and establishment of M/WBE set-aside public construction procurement programs.<sup>63</sup> In this context, the existence of a proportionality between M/WBE entry and set-asides in the public sector construction sector (Marion, 2009) suggests that the Logit parameter estimates in Table 49 could be informing, at least in part, disparities in the awarding of public sector construction projects in the Nashville market area.

*Table 49: Self Employment/Business Ownership Model: Logit Parameter Odds Ratio Estimates From The 2017 American Community Survey*

*MNAA Disparity Study*

	Coefficient	Standard Error	P-value
<i>Regressand:</i> Self Employment in The Nashville-Davidson-Murfreesboro Metropolitan Area (Binary)			
<i>Regressors:</i>			
Constant	.0312	.0021	<b>.0000</b>
Age	1.24	.0063	<b>.0000</b>
Age-Squared	.7013	.0042	.2301
Married	.9612	.0359	.1273
Woman	.9003	.0381	<b>.0045</b>
Black American	.7628	.1283	<b>.0427</b>
Hispanic American	.9385	.1071	<b>.0758</b>
Native American	.9112	.1819	.6349
Pacific Islander American	.8542	.1057	<b>.0634</b>
Asian American	.2315	.0439	.1262
Other Race American	1.39	.6962	<b>.0023</b>
College Degree	.8950	.0974	.5391
Speaks English Only	.8357	.0914	<b>.0168</b>
Disabled	1.24	.5287	.2356
Value of Home (\$)	1.38	.0016	<b>.0000</b>
Interest, Dividend, and Rental Income (\$)	1.17	.0023	<b>.0000</b>
Mortgage Payment (\$)	1.39	.0031	<b>.0000</b>
Number of Observations	8,526		
<i>Pseudo-R<sup>2</sup></i>	.073		

Bold P-value indicates statistical significance level of .10 or lower.

*Source of Data:* American Community Survey 2017, IPUMs USA

<sup>63</sup> Marion, Justin. 2009. "Firm Racial Segregation and Affirmative Action in the Highway Construction Industry." *Small Business Economics* 33: Article 441.

Table 50: Construction Sector Self Employment/Business Ownership Model: Logit Parameter Odds Ratio Estimates From The 2017 American Community Survey

MNAA Disparity Study

	Coefficient	Standard Error	P-value
<i>Regressand:</i> Self Employment in The Nashville-Davidson-Murfreesboro Metropolitan Area (Binary)			
<i>Regressors:</i>			
Constant	.0017	.0021	<b>.0000</b>
Age	1.12	.0139	<b>.0269</b>
Age-Squared	.9195	.0381	.1728
Married	1.18	.0572	.1243
Woman	.1724	.0182	<b>.0329</b>
Black American	.0931	.0205	<b>.0483</b>
Hispanic American	.8345	.0217	<b>.0526</b>
Native American	3.62	1.36	.1273
Pacific Islander American	.3673	.1715	.1382
Asian American	.0649	.0382	<b>.0174</b>
Other Race American	1.74	1.38	.1462
College Degree	.8315	.0948	<b>.0317</b>
Speaks English Only	1.14	.1925	.1368
Disabled	1.84	1.35	.1785
Value of Home (\$)	1.62	1.13	<b>.0426</b>
Interest, Dividend, and Rental Income (\$)	1.21	1.16	.1328
Mortgage Payment (\$)	1.18	.0023	.1926
Number of Observations	7,394		
<i>Pseudo-R<sup>2</sup></i>	.143		

Bold P-value indicates statistical significance level of .10 or lower.

Source of Data: American Community Survey 2017, IPUMs USA

**B. GSPC Data**

Our MNAA disparity analysis is based on 2019 survey data compiled by GSPC, and constitutes a sample of firms from the bidder and vendor lists provided by MNAA. The GSPC survey was a questionnaire that captured data on firm and individual owner characteristics, and their outcomes with respect to public contracting/subcontracting, credit markets, the private sector, and the MNAA between July 1 2013 and June 1, 2018. The GSPC research interest is in the extent to which a firm’s status as MWDBE conditions success/failure in contracting with MNAA in public contracting opportunities. In this analysis, our use of the data in the GSPC survey is limited to the measured covariates that in our view are best suited for evaluating the extent to which MWDBE status is a possible cause of public contracting disparities at MNAA. Table 51 reports, for the 170 survey responses available, a summary on the description, mean and standard deviation of the covariates from the GSPC survey that are relevant to the analysis, and utilized as regressors and regressands in our econometric specifications.

Table 51: Covariate Summary – GSPC Survey of Business Owners

MNAA Disparity Study

Covariate	Description	Mean	Standard Deviation	Number of Observations
Firm entered market within past ten years	<i>Binary Variable:</i> 1 = yes	.182	.387	170
Number of times denied a commercial bank loan between 7/1/13 - 6/30/18	<i>Ordinal Variable:</i> 1 = 0 2 = 1 – 10 3 = 11 – 25 4 = 26 – 50 5 = 51 – 100 6 = Over 100	.818	.582	170
Number of prime bids submitted on MNAA projects between 7/1/13 - 6/30/18	<i>Ordinal Variable:</i> 1 = 0 2 = 1 – 10 3 = 11 – 25 4 = 26 – 50 5 = 51 – 100 6 = Over 100	1.35	.873	170
Number of MNAA contracts awarded between 7/1/13 - 6/30/18	<i>Ordinal Variable:</i> 1 = 0 2 = 1 – 10 3 = 11 – 25 4 = 26 – 50 5 = 51 – 100 6 = Over 100	1.26	.866	170
Number of MNAA subcontracts awarded between 7/1/13 - 6/30/18	<i>Ordinal Variable:</i> 1 = 0 2 = 1 – 10 3 = 11 – 25 4 = 26 – 50 5 = 51 – 100 6 = Over 100	.406	.832	170
Did not serve as a contractor or subcontractor on MNAA projects between 7/1/13 – 6/30/18	<i>Binary Variable:</i> 1 = Yes	.129	.337	170
Largest single contract awarded since 7/1/13	<i>Ordinal Variable:</i> 1 = \$100,00 or less 2 = \$100,001 - \$250,000 3 = \$250,001 - \$500,000 4 = \$500,001 - \$750,000 5 = \$750,001 - \$1,000,000 6 = \$1,000,001 – 1,320,000 7 = 1,320,001 - \$1,500,000 8 = \$1,500,001 - \$5,000,000 9 = \$5,000,001 - \$10,000,000 10= Over \$10,000,000	3.61	3.25	170
Firm has experienced private sector discrimination	<i>Binary Variable</i> 1 = Yes	.188	.392	170
Informal networks dominate/monopolize contracting at MNAA	<i>Binary Variable</i> 1 = Yes	.429	.496	170
Owner has more than 20 years of experience	<i>Binary Variable</i> 1 = Yes	.623	.486	170
Firm has more than 10 employees	<i>Binary Variable</i> 1 = Yes	.435	.497	170
Firm owner has a baccalaureate degree	<i>Binary Variable:</i> 1 =Yes	.429	.496	170

Firm gross revenue greater than \$1,500,000	Binary Variable: 1 = Yes	.347	.477	170
Firm bonding limit greater than \$1,500,000	Binary Variable: 1 = Yes	.153	.361	170
Financing is a Barrier to Submitting Bids and Securing Contracts From MNA	Binary Variable: 1 = Yes	.912	.284	170
Firm is in the construction sector	Binary Variable: 1 = Yes	.135	.343	170
Firm is qualified to do business with MNA	Binary Variable: 1 = Yes	.918	.276	170
Firm is registered to do business with MNA	Binary Variable: 1 = Yes	.803	.401	170
Firm is willing and able to do business with MNA as a prime contractor	Binary Variable: 1 = Yes	.765	.425	170
Firm is willing and able to do business with MNA as a subcontractor	Binary Variable: 1 = Yes	.912	.284	170
Firm is a certified minority business enterprise	Binary Variable: 1 = Yes	.318	.467	170
Firm is a certified woman business enterprise	Binary Variable: 1 = Yes	.294	.457	170
Firm is a certified small business enterprise	Binary Variable: 1 = Yes	.412	.494	170
Firm is a certified disadvantaged business enterprise	Binary Variable: 1 = Yes	.3353	.473	170
Firm is a certified airport concessions disadvantaged business enterprise	Binary Variable: 1 = Yes	.082	.276	170
Majority Firm Owner is Black American	Binary Variable: 1 = Yes	.288	.454	170
Majority Firm Owner is Hispanic American	Binary Variable: 1 = Yes	.029	.169	170
Majority Firm Owner is Subcontinent Asian	Binary Variable: 1 = Yes	.018	.132	170
Majority Firm Owner is Asian Pacific Islander	Binary Variable: 1 = Yes	.006	.077	170
Majority Firm Owner is Native American	Binary Variable: 1 = Yes	.005	.068	170
Majority Firm Owner is bi/multiracial	Binary Variable: 1 = Yes	.007	.073	170
Majority Firm Owner is Other race	Binary Variable: 1 = Yes	.029	.169	170
Majority Firm Owner is a Woman	Binary Variable: 1 = Yes	.547	.499	170

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### C. Statistical and Econometric Framework

Methodologically, the GSPC statistical and econometric analysis of possible MWDBE public contracting disparities with the MNA utilizes a Categorical Regression Model (CRM) framework.<sup>64</sup> As the covariates measuring public contracting activity/outcomes and other respondent characteristics in Table 51 are categorical responses to questionnaire items (e.g. public contracting bid ranges, yes, no), a CRM views the categories as latent variables with likelihood thresholds that are conditioned on other covariates. In the case where there are more than two categories and the succession of categories have a natural ranking, a CRM permits a determination as to how particular covariates condition the likelihood/probability of being in the highest valued category relative to the lower-valued categories. In the case of just two categorical but not naturally ordered categories, the CRM reduces to a Binary Regression Model (BRM).<sup>65</sup>

<sup>64</sup> See: Richard D. McKelvey and William Zavoina. 1975. "A Statistical Model for the Analysis of Ordinal Level Dependent Variables," *Journal of Mathematical Sociology*, 4: pp. 103 - 120.

<sup>65</sup> More formally, if the latent realization of an outcome is  $Y_i^*$ , ranging from  $-\infty$  to  $\infty$ , a structural and conditional specification for  $Y_i^*$  is  $Y_i^* = \mathbf{X}_i \beta + \varepsilon_i$ , where  $\mathbf{X}$  is a vector of exogenous covariates,  $\beta$  is a

For all the CRM/BRM parameter estimates below, we report them as “odds ratios”, which measure the ratio of the probability of success and the probability of failure relative to the omitted group in all our specifications—Nonminority owned firms.<sup>66</sup> When the odds ratio is greater (less) than unity for a parameter, the measure characteristic has the effect of increasing (decreasing) the likelihood of the outcome under consideration relative to Nonminority owned firms. We determine statistical significance on the basis of the estimated coefficient’s probability value—or P-value. The P-value is the probability of obtaining an estimate of the coefficient by chance alone, assuming that the null hypothesis of the variable having a zero effect is true. As a convention, GSPC rejects the null hypothesis of no effect, and concludes the estimated coefficient is statistically significant as long as  $P\text{-value} \leq .10$ , which we highlight in bold for all parameter estimates.

As nonresponse probabilities in the GSPC survey are unknown, we estimate all parameters from our CRM/BRM specifications with bootstrapped standard errors to minimize/eliminate the bias that can result from the sample being unrepresentative of the population of interest due to nonresponse.<sup>67</sup> To the extent that bootstrapped standard errors enable consistent estimation of parameters given misspecification that could result from the omission of sampling and nonresponse weights, CRM/BRM parameter estimates with bootstrapped standard errors effects can mitigate/eliminate the bias caused by a sample that may not be fully representative of the population of interest.<sup>68</sup> Standard errors are also clustered on firm business category, as outcomes in particular sectors can be correlated (e.g. not independent), and if not accounted for, would lead to biased parameter estimates.<sup>69</sup>

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vector of coefficients measuring the effects of particular covariates on the realization of  $Y_i^*$ , and  $\varepsilon_i$  is a random error. For categorical and ordinal outcomes  $m = 1 \dots J$ ,  $Y_i = m$  if  $\tau_{m-1} \leq Y_i^* < \tau_m$ , where the  $\tau_i$  are thresholds for the particular realizations of  $Y_i^* = m$ . Conditional on  $\mathbf{X}$  the likelihood/probability that  $Y_i$  takes on a particular realization is  $Pr(Y_i = m | \mathbf{X}) = \Phi(\tau_m - \mathbf{X}\beta) - \Phi(\tau_{m-1} - \mathbf{X}\beta)$ , where  $\Phi$  is the cumulative density function of  $\varepsilon$ . The GSPC methodology utilizes covariates that control and/or proxy for the education level of the firm owner, the age of the firm, the size of the firm with respect to the number of employees and revenues, firm bonding capacity, and firm financial standing.

<sup>66</sup> An “odds-ratio” is also a measure of “effect size” in that in addition to the statistical significance of a parameter, the “odds-ratio” provides a measure of a parameter estimate’s “practical magnitude.” For an “odds-ratio” the practical magnitude is the absolute value of 1 minus the “odds-ratio”, measuring the percentage change in the likelihood of observing the dependent outcome.

<sup>67</sup> See: Bradley Efron and Robert J. Tibshirani. 1993. *An Introduction to the Bootstrap*, Chapman and Hall, NY.

<sup>68</sup> See: Silvia Goncalves and Halbert White. 2005. “Bootstrap Standard Error Estimates For Linear Regression,” *Journal of the American Statistical Association*, 100: pp. 970 -979., and Stanislav Kolenikov. 2010. “Resampling Variance Estimation for Complex Survey Data,” *Stata Journal*, 10: pp. 165 – 199.

<sup>69</sup> The business categories are: 1.) Construction Services, 2.) Construction Related Professional Services (Including Architecture and Engineering), 3.) Professional Services, 4.) Other Services, and 5.) Goods.

#### **D. The Relative New Firm Entry Propensities of MWDBE Firm Owners in MNAA Market Area**

We first examine the effects of MWDBE status on an individual's participation in the private sector as a relatively new business firm in the Nashville Market Area. To the extent that MWDBEs have a lower likelihood of market entry relative to non-MWDBEs, it would suggest that private discrimination against MWDBE is sufficiently present to warrant consideration of public sector legal remedies such as affirmative action and MWDBE bid reserve contracting, that would improve the prospects for the entry of new MWDBE owned firms in the market. Such a perspective on discrimination suggests that entry barriers impede the formation of MWDBE owned firms. The counterfactual is that in the absence of such entry barriers, manifested perhaps as discrimination against MWDBE owned firms in access to capital, credit, etc, MWDBEs would be able to enter the market, and compete with non-MWDBES in bidding and securing public contracts from the MNAA.

GSPC determined if MWDBE status is a barrier to the formation of new businesses in the MNAA Market Area. We demonstrate this in Tables 52-53, for each category of race/ethnicity/gender that formed new businesses from 2013-2018 by controlling for the firm's owner's experience, the size of the firm having, firm gross revenue, firm bonding status, firm financial standing, whether or not the firm is in the construction/construction services sector, and the education of the firm owner. After controlling for those elements if disparity still exists, it may be concluded that race/ethnicity/gender is a barrier to the formation of new businesses in the MNAA Market Area.<sup>70</sup>

The parameter estimates in Tables 52-54 suggest that relative to non-MWDBEs, MWDBEs are neither more or less likely to be relatively new firms in the market, as the odds ratios are never statistically significant. To the extent that market experience is an important determinant of, and is correlated with success in bidding and securing public contracts, that MWDBEs in the MNAA market area are no different than non-MWDBEs in being recent entrants to the market suggests that, the market experience of MWDBE owned and non-MWDBE owned firms is similar. If firm age is proportional to knowledge/experience about bidding and securing public contracts, this suggests that any disparities in public contracting outcomes between MWDBEs and non-MWDBEs can't be explained by differential market experience.

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<sup>70</sup> As a goodness-of-fit measure, Pseudo- $R^2$  is reported. Pseudo- $R^2$  is not to be interpreted as the  $R^2$  in standard Ordinary Least Squares (OLS) estimation, as OLS proceeds by minimizing variance to get parameter estimates. Logit specifications are likelihood-based, and higher values of Pseudo- $R^2$  indicate that the specified model is an increasingly better alternative to a null model with only an intercept.

*Table 52: Logit Parameter Estimates (Odds Ratio) Certified MWDBE Status and Firm Entry in MNA Market Area*  
MNA Disparity Study

	Coefficient	P-value
<i>Regressand:</i> Firm entered market within past 10 years: (Binary)		
Owner has more than 20 years' experience	0.0862	<b>0.0000</b>
More than 10 employees	0.3266	<b>0.0740</b>
Firm owner has a baccalaureate degree	0.9683	0.9503
Firm gross revenue greater than 1.5 million	0.1167	0.0948
Firm Bonding limit greater than 1.5 million	1.3331	0.7156
Financing is a barrier for securing MNA project	1.7517	0.4525
Firm is in the construction sector	1.4258	0.6029
Firm is qualified to do business with MNA	0.2358	0.1670
Firm is registered to do business with MNA	1.3273	0.6966
Firm is a certified minority business enterprise	1.0852	0.9005
Firm is a certified woman enterprise	0.5788	0.3950
Firm is a certified disadvantaged business enterprise	2.6873	0.1227
Firm is an airport concessions certified disadvantaged business enterprise	0.4710	0.4427
Firm is a certified small business enterprise	0.6647	0.4415
Observations	170	
Pseudo R <sup>2</sup>	0.3309	

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*Table 53: Logit Parameter Estimates (Odds Ratio): Owner Race/Ethnicity/Gender Status and Firm Entry in MNA Market Area*  
MNA Disparity Study

	Coefficient	P-value
<i>Regressand:</i> Firm entered market within past 10 years (Binary)		
Owner has more than 20 years' experience	0.0719	<b>0.0000</b>
More than 10 employees	0.3468	0.1005
Firm owner has a baccalaureate degree	0.8246	0.7085
Firm gross revenue greater than 1.5 million	0.1019	0.0941
Firm Bonding limit greater than 1.5 million	1.2805	0.7624
Financing is a barrier for securing MNA project	1.4216	0.6521
Firm is in the construction sector	1.5489	0.5468
Firm is qualified to do business with MNA	0.1312	0.0681
Firm is registered to do business with MNA	1.7199	0.4651
Firm is Black American owned	1.9339	0.2443
Firm is Hispanic American owned	1.7791	0.5957
Firm is Subcontinent Asian owned	12.3687	0.0184
Firm is Asian Pacific Islander owned	0.0001	0.8921
Firm is Native American owned	0.0001	0.7216
Firm is bi/multiracial owned	0.0001	0.9257
Firm is other race owned	0.0001	0.0000
Firm is Nonminority Female owned	0.7182	0.5202
Observations	170	
Pseudo R <sup>2</sup>	0.3503	

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### E. MWDBEs and Bank Loan Denials in The MNA Market Area

To the extent that MWDBEs are credit-constrained as a result of facing discrimination in private lending markets, their capacity to compete for, win, and execute public projects could be compromised. In this context, a political jurisdiction that awards public contracts is potentially a *passive participant* in discrimination as MWDBEs may only have recourse to higher cost financing due to facing discrimination in private credit markets, which compromises the competitiveness of their bids. Such a perspective on discrimination suggests that barriers faced by MWDBEs in the private sector can rationalize targeted public contracting programs by political jurisdictions, and the capacity and growth of MWDBEs could be enhanced with access to public contracting opportunities (Bates, 2009).<sup>71</sup>

To determine if MWDBE status is a barrier to securing credit in the MNA Market Area, Tables 54-55 report, for each of the distinct MWDBEs and owner self-reported race/ethnicity/gender in the GSPC sample, the estimated parameters of an Ordinal Logit BRM with the dependent variable being a categorical variable for the number of times the firm was denied a private bank loan firm between the years 2013 – 2018. Relative to the regressions reported in Tables 48-49, we add additional binary controls to account for differences across firms in their willingness/ability to do business with MNA, and whether they are registered and qualified to do so.

The estimated odds ratios in Table 54 reveal that for the five distinct MWDBEs in the GSPC sample, relative to non-MWDBEs—the excluded group in the CRM specification—while the odds ratio for certified disadvantaged business enterprises, airport concessions certified disadvantaged business enterprises, and certified small business enterprises is greater than unity, is not statistically significant. Thus, while there is a tendency for these type of MWDBEs, to face barriers in securing bank loans relative to non-MWDBEs, their differences are not statistically significant. When disaggregating by race and gender, the parameter estimates in Table 55 reveal that firms Subcontinent Asian owned and Asian Pacific Islander owned firms are relatively more likely to have been denied bank loans, as the odds ratio is positive and statistically significant. For Black American owned firms, while there is a tendency—a possibility—for them to be denied bank loans at rate higher than non-SWDBEs, there is no statistical significance. In general, these parameter estimates suggest that for Subcontinent Asian owned and Asian Pacific Islander owned firms, and possibly for Black American owned firms, certified disadvantaged business enterprises, airport concessions certified disadvantaged business enterprises, and certified small business enterprises; their capacity to compete for MNA public contracts relative to non-MWDBEs is potentially undermined by their differential treatment in the credit market.

<sup>71</sup> See: Bates, Timothy. 2009 "Utilizing Affirmative Action in Public Sector Procurement as a Local Economic Development Strategy." *Economic Development Quarterly* ,23: pp. 180 - 192., and Bates, Timothy, and Alicia Robb. 2013. "Greater Access to Capital is Needed to Unleash the Local Economic Development Potential of Minority owned Businesses." *Economic Development Quarterly*, 27: pp.250 - 259.

*Table 54: Ordinal Logit Parameter Estimates (Odds Ratio): Certified MWDBE Status and Commercial Bank Loan Denials in MNAA Market Area  
MNAA Disparity Study*

	<b>Coefficient</b>	<b>P-value</b>
<i>Regressand:</i> Number of times denied commercial bank loan (Ordinal)		
Owner has more than 20 years' experience	1.0950	0.8265
More than 10 employees	0.8588	0.7044
Firm owner has a baccalaureate degree	1.4865	0.2600
Firm gross revenue greater than 1.5 million	1.0078	0.9863
Firm Bonding limit greater than 1.5 million	1.0989	0.8389
Financing is a barrier for securing MNAA project	0.4823	0.4460
Firm is in the construction sector	1.8381	0.2920
Firm is qualified to do business with MNAA	0.4508	0.2244
Firm is registered to do business with MNAA	1.0825	0.8674
Firm is willing/able prime contractor for MNAA	0.4969	0.1489
Firm is willing/able subcontractor for MNAA	0.6380	0.2596
Firm is a certified minority business enterprise	0.5906	0.3402
Firm is a certified woman enterprise	0.6090	0.2610
Firm is a certified disadvantaged business enterprise	1.9935	0.2465
Firm is an airport concessions certified disadvantaged business enterprise	2.6133	0.1877
Firm is a certified small business enterprise	1.4781	0.2655
Observations	170	
Pseudo R <sup>2</sup>	0.0556	

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*Table 55: Ordinal Logit Parameter Estimates (Odds Ratio): Race/Ethnicity/Gender Status and Commercial Bank Loan Denials in MNAA Market Area  
MNAA Disparity Study*

	Coefficient	P-value
<i>Regressand:</i> Number of times denied commercial bank loan (Ordinal)		
Owner has more than 20 years' experience	0.8896	0.7763
More than 10 employees	0.7323	0.4694
Firm owner has a baccalaureate degree	1.3400	0.4046
Firm gross revenue greater than 1.5 million	1.2594	0.6657
Firm Bonding limit greater than 1.5 million	1.0320	0.9436
Financing is a barrier for securing MNAA project	0.4066	0.3645
Firm is in the construction sector	2.0193	0.1649
Firm is qualified to do business with MNAA	0.3259	0.1106
Firm is registered to do business with MNAA	1.2400	0.6482
Firm is willing/able prime contractor for MNAA	0.6045	0.2709
Firm is willing/able subcontractor for MNAA	0.7020	0.4208
Firm is Black American owned	2.0486	0.1858
Firm is Hispanic American owned	0.2317	0.1260
Firm is Subcontinent Asian owned	2.2653	<b>0.0371</b>
Firm is Asian Pacific Islander owned	2.7844	<b>0.0596</b>
Firm is Native American owned	0.0000	<b>0.0000</b>
Firm is bi/multiracial owned	0.0000	<b>0.0000</b>
Firm is other race owned	1.0988	0.8965
Firm is Nonminority Female owned	0.9805	0.9547
Observations	170	
Pseudo R <sup>2</sup>	0.0779	

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1. Are MWDBE owned Firms Less Likely To Compete for Contracts in MNAA Market Area?

One reason disparities in public contracting outcomes between MWDBEs and non-MWDBEs could exist is that relative to non-MWDBEs, MWDBEs may be less interested in, and less likely to submit bids for public contracts. To determine if this is the case in the MNAA Market Area, Tables 56-57 report Ordinal Logit parameter estimates of the likelihood of firms submitting bids for prime contracts at MNAA .

The parameter estimates in Table 56 suggest that relative to non-MWDBEs, airport concessions certified disadvantaged enterprises and certified small business enterprises submit more bids to MNAA, as the odds ratio is positive and statistically significant in these instances. In contrast, certified Nonminority Females enterprises submit relatively less bids to MNAA, as the odds ratio is less than unity and statistically significant in this instance. For the race/gender disaggregated results in Table 57, the less than unity odd ratio and statistical significance for bi-multiracial owned firms suggest that submit relatively fewer submissions for prime contracts at MNAA. While not statistically significant, the odds ratio for Black

American owned firms, Hispanic American owned firms, Asian Pacific Islander owned firms, and other race owned firms is positive, suggest that possibly submit more bids relative to non-MWDBEs. The converse is the case for Subcontinent Asian owned firms, Native American owned firms, bi/multiracial owned firms, and Nonminority Female owned firms. To the extent that success in public contracting is proportional to the number of prime bid submissions, the parameter estimates in Tables 56-57 suggest that with the exception of Subcontinent Asian owned firms, Native American owned firms, bi/multiracial owned firms, and Nonminority Female owned firms, and possibly for Black American owned firms, Hispanic American owned firms, Asian Pacific Islander owned firms, and other race owned firms, any contracting disparities between SMDBEs and non-MWDBEs cannot be explained by MWDBEs having lower prime contract bid submission rates to MNA.

Table 56: Ordinal Logit Parameter Estimates (Odds Ratio): Certified MWDBE Status and Number of Prime Bid Submissions to MNA in MNA Market Area

MNA Disparity Study

	Coefficient	P-value
<b>Regressand:</b> Number of prime bids on MNA projects (Ordinal)		
Owner has more than 20 years' experience	2.8168	<b>0.0071</b>
More than 10 employees	0.6837	0.4434
Firm owner has a baccalaureate degree	0.8779	0.6902
Firm gross revenue greater than 1.5 million	0.9764	0.9715
Firm Bonding limit greater than 1.5 million	2.6827	0.1176
Financing is a barrier for securing MNA project	2.4772	0.1224
Firm is in the construction sector	0.6947	0.5452
Firm is qualified to do business with MNA	3.4881	<b>0.0370</b>
Firm is registered to do business with MNA	2.0252	0.1740
Firm is willing/able prime contractor for MNA	1.9160	<b>0.0793</b>
Firm is willing/able subcontractor for MNA	0.4059	0.1173
Firm is a certified minority business enterprise	1.1073	0.8120
Firm is a certified woman enterprise	0.3472	<b>0.0184</b>
Firm is a certified disadvantaged business enterprise	0.7984	0.5560
Firm is an airport concessions certified disadvantaged business enterprise	7.5468	<b>0.0005</b>
Firm is a certified small business enterprise	2.2061	<b>0.0427</b>
Observations	170	
Pseudo R <sup>2</sup>	0.1564	

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Table 57: Ordinal Logit Parameter Estimates (Odds Ratio): Race/Ethnicity/Gender Status and Number of Prime Bid Submissions to MNAA in MNAA Market Area

MNAA Disparity Study

	Coefficient	P-value
<i>Regressand:</i> Number of prime bids on MNAA projects (Ordinal)		
Owner has more than 20 years' experience	2.5012	<b>0.0205</b>
More than 10 employees	0.6657	0.3984
Firm owner has a baccalaureate degree	0.7861	0.4769
Firm gross revenue greater than 1.5 million	1.0213	0.9728
Firm Bonding limit greater than 1.5 million	2.1553	0.2030
Financing is a barrier for securing MNAA project	2.8718	<b>0.0952</b>
Firm is in the construction sector	0.8628	0.7799
Firm is qualified to do business with MNAA	2.2993	0.1321
Firm is registered to do business with MNAA	2.8999	<b>0.0401</b>
Firm is willing/able prime contractor for MNAA	2.3158	<b>0.0221</b>
Firm is willing/able subcontractor for MNAA	0.4766	0.1809
Firm is Black American owned	1.3549	0.4073
Firm is Hispanic American owned	1.0786	0.8863
Firm is Subcontinent Asian owned	0.0297	0.2454
Firm is Asian Pacific Islander owned	1.7381	0.3841
Firm is Native American owned	0.8249	0.8132
Firm is bi/multiracial owned	0.8894	<b>0.0000</b>
Firm is other race owned	1.2447	0.8260
Firm is Nonminority Female owned	0.5824	0.1163
Observations	170	
Pseudo R <sup>2</sup>	0.1374	

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2. MWDBEs And Prime Contracting in MNAA Market Area

To the extent that SWMDBE status lowers public contracting success at MNAA, it would be suggestive of MWDBE status being a source of public contracting disparities between SWMDBEs and non-MWDBEs. To explore if this is the case in the MNAA market area, Tables 58-59 report Ordinal Logit BRM parameter estimates where the dependent variable is the number of MNAA prime contracts awarded to the firm between 2013 – 2018.

The results in Table 58 suggest that relative to non-MWDBEs, airport concessions certified enterprises are more likely to be awarded MNAA prime contracts, as the estimated odds ratio is greater than unity, and statistically significant in this instance. The same is possibly true for certified small business enterprises, as the estimated odds ratio is greater than unity, but not statistically significant. The less than unity but statistically insignificant estimated odds ratio for certified MWDBE suggests that these MWDBEs are possibly relatively less likely to be awarded MNAA prime contracts. The gender/race disaggregated results in Table 59 suggest that that relative to non-MWDBEs, Asian Pacific Islander owned firms are more likely to be awarded MNAA prime contracts, as the estimated odds ratio is greater than unity, and statistically

significant in this instance. The same is possibly true for other race owned firms, as the estimated odds ratio is greater than unity, but not statistically significant. The less than unity but statistically insignificant estimated odds ratio for Black American owned firms, Hispanic American owned firms, Subcontinent Asian owned firms, Native American-owned firms, and bi/multiracial owned firms suggests that these MWDBEs are possibly relatively less likely to be awarded MNA A prime contracts. In general, the parameter estimates in Tables 58-59 suggest, with the exception of airport concessions certified disadvantaged firms, the existence of disparities in public contracting awards at MNA A that are based upon a firm’s MWDBE status.

*Table 58: Ordinal Logit Parameter Estimates (Odds Ratio): Certified MWDBE Status and Number of MNA A Prime Contracts Awarded in MNA A Market Area*

*MNA A Disparity Study*

	Coefficient	P-value
<i>Regressand: # of MNA A prime contracts awarded 7/1/13 - 6/1/18 (Ordinal)</i>		
Owner has more than 20 years’ experience	1.3166	0.4013
More than 10 employees	0.7086	0.4595
Firm owner has a baccalaureate degree	1.0084	0.9805
Firm gross revenue greater than 1.5 million	0.9641	0.9446
Firm Bonding limit greater than 1.5 million	1.6016	0.3809
Financing is a barrier for securing MNA A project	1.8885	0.2557
Firm is in the construction sector	0.7488	0.5852
Firm is qualified to do business with MNA A	2.3896	<b>0.0850</b>
Firm is registered to do business with MNA A	1.8210	0.2194
Firm is willing/able prime contractor for MNA A	1.6293	0.2388
Firm is a certified minority business enterprise	0.8176	0.5887
Firm is a certified woman enterprise	0.5439	0.1440
Firm is a certified disadvantaged business enterprise	0.7132	0.3296
Firm is an airport concessions certified disadvantaged business enterprise	5.4645	<b>0.0051</b>
Firm is a certified small business enterprise	1.4686	0.2855
Observations	170	
Pseudo R <sup>2</sup>	0.0747	

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Table 59: Ordinal Logit Parameter Estimates (Odds Ratio): Race/Ethnicity/Gender Status and Number of MNAA Prime Contracts Awarded in MNAA Market Area

MNAA Disparity Study

	Coefficient	P-Value
<i>Regressand: # of MNAA prime contracts awarded 7/1/13 - 6/1/18 (Ordinal)</i>		
Owner has more than 20 years' experience	1.2525	0.5229
More than 10 employees	0.7519	0.5402
Firm owner has a baccalaureate degree	0.9853	0.9659
Firm gross revenue greater than 1.5 million	0.8819	0.8019
Firm Bonding limit greater than 1.5 million	1.4093	0.5247
Financing is a barrier for securing MNAA project	2.0121	0.2505
Firm is in the construction sector	0.8149	0.6847
Firm is qualified to do business with MNAA	1.6795	0.2518
Firm is registered to do business with MNAA	2.2516	<b>0.0901</b>
Firm is willing/able prime contractor for MNAA	1.9608	<b>0.0831</b>
Firm is Black American owned	0.7844	0.5010
Firm is Hispanic American owned	0.9126	0.8246
Firm is Subcontinent Asian owned	0.0736	0.3227
Firm is Asian Pacific Islander owned	5.1572	<b>0.0010</b>
Firm is Native American owned	0.4811	0.3458
Firm is bi/multiracial owned	0.9764	0.1282
Firm is other race owned	1.7998	0.5770
Firm is Nonminority Female owned	0.6524	0.1921
Observations	170	
Pseudo R <sup>2</sup>	0.0750	

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**F. MWDBEs And Subcontracting in the MNAA Market Area**

To the extent that submitting and winning public contract bids requires experience, which can also be gained through subcontracting with lead prime firms with MNAA contracts, MWDBEs can potentially become more frequent and successful prime contract bidders by acquiring experience as subcontractors. As such, the low-frequency of prime bid submission and lower likelihood of being a prime contractor by MWDBEs need not be a concern if they are gaining valuable subcontracting experience that will translate into high frequency contract bids and success later. To explore if this is the case in the MNAA Market Area, Tables 60-61 report Ordinal Logit BRM parameter estimates where the dependent variable is the number of MNAA subcontracts awarded to the firm between 2013 – 2018.

The results in Table 60 suggest that relative to non-MWDBEs, certified Nonminority Females enterprises are more likely to be awarded MNAA subcontracts, as the estimated odds ratio is greater than unity, and statistically significant in this instance. The same is possibly true for certified disadvantaged enterprises, airport concessions certified disadvantaged enterprises, and certified small business enterprises as the estimated odds ratio is greater than unity, but not statistically significant. The less than unity but statistically insignificant estimated odds ratio for certified MWDBEs, suggests that these MWDBEs are

possibly relatively less likely to be awarded MNAA subcontracts. The gender/race disaggregated results in Table 61 suggest that that relative to non-MWDBEs, Asian Pacific Islander owned firms and Nonminority Female owned forms are possibly more likely to be awarded MNAA subcontracts, as the estimated odds ratio is greater than unity, but statistically significant in those instances. The less than unity but statistically insignificant estimated odds ratio for Asian Pacific Islander owned firms, Native American owned firms, and bi/multiracial owned firms suggests that these MWDBEs are possibly relatively less likely to be awarded MNAA subcontracts. In general, the parameter estimates in Tables 60-61 suggest that for certified minority business enterprises, Asian Pacific Islander owned firms, Native American owned firms, and bi/multiracial owned firms, disparities in MNAA subcontracting awards are possibly based upon a firm's MWDBE status.

*Table 60: Ordinal Logit Parameter Estimates (Odds Ratio): Certified MWDBE Status and Number of MNAA Subcontracts Awarded in MNAA Market Area*

*MNAA Disparity Study*

	Coefficient	P-value
<i>Regressand: # of MNAA subcontracts awarded 7/1/13 - 6/1/18 (Ordinal)</i>		
Owner has more than 20 years' experience	2.6486	<b>0.0094</b>
More than 10 employees	0.7024	0.4668
Firm owner has a baccalaureate degree	2.0826	0.0537
Firm gross revenue greater than 1.5 million	1.5700	0.3941
Firm Bonding limit greater than 1.5 million	0.4805	0.2866
Financing is a barrier for securing MNAA project	1.1379	0.8496
Firm is in the construction sector	3.0618	<b>0.0770</b>
Firm is qualified to do business with MNAA	0.9456	0.9582
Firm is registered to do business with MNAA	2.5522	0.1499
Firm is willing/able subcontractor for MNAA	6.5946	<b>0.0830</b>
Firm is a certified minority business enterprise	0.6583	0.3848
Firm is a certified woman enterprise	2.1730	<b>0.0834</b>
Firm is a certified disadvantaged business enterprise	1.1413	0.7720
Firm is an airport concessions certified disadvantaged business enterprise	1.4645	0.5975
Firm is a certified small business enterprise	1.0619	0.8784
Observations	170	
Pseudo R <sup>2</sup>	0.0981	

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Table 61: Ordinal Logit Parameter Estimates (Odds Ratio): Owner Race/Ethnicity/Gender Status and Number of MNAА Subcontracts Awarded in MNAА Market Area

MNAА Disparity Study

	Coefficient	P-value
<i>Regressand</i> : # of MNAА subcontracts awarded 7/1/13 - 6/1/18 (Ordinal)		
Owner has more than 20 years' experience	2.5071	<b>0.0138</b>
More than 10 employees	0.8191	0.6681
Firm owner has a baccalaureate degree	2.0886	<b>0.0554</b>
Firm gross revenue greater than 1.5 million	1.3076	0.6082
Firm Bonding limit greater than 1.5 million	0.5275	0.3198
Financing is a barrier for securing MNAА project	0.6017	0.5133
Firm is in the construction sector	2.6823	<b>0.1068</b>
Firm is qualified to do business with MNAА	0.6614	0.7038
Firm is registered to do business with MNAА	3.6209	<b>0.0590</b>
Firm is willing/able subcontractor for MNAА	7.6506	<b>0.0469</b>
Firm is Black American owned	0.4286	<b>0.0954</b>
Firm is Hispanic American owned	0.2533	0.3124
Firm is Subcontinent Asian owned	1.6278	0.5403
Firm is Asian Pacific Islander owned	0.9347	<b>0.0000</b>
Firm is Native American owned	0.9185	<b>0.0000</b>
Firm is bi/multiracial owned	0.9752	<b>0.0000</b>
Firm is other race owned	0.4547	0.3500
Firm is Nonminority Female owned	1.3380	0.4392
Observations	170	
Pseudo R <sup>2</sup>	0.1008	

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Tables 62-63 report Logit parameter estimates where the dependent variable is whether the firm “never” served since 1/1/14 as a prime contractor or subcontractor for MNAА. The results in Table 62 suggest that relative to non-MWDBEs, certified small business enterprises are more likely to be awarded MNAА prime contracts or subcontracts, as the estimated odds ratio is less than unity, and statistically significant in this instance. The same is possibly true for certified minority enterprises, and certified Nonminority Females enterprises as the estimated odds ratio is greater than unity, but not statistically significant. The greater than unity but statistically insignificant estimated odds ratio for airport concessions certified enterprises suggests that these MWDBEs are possibly relatively less likely to be awarded MNAА prime contracts or subcontracts.

The gender/race disaggregated results in Table 63 suggest that that relative to non-MWDBEs, Subcontinent Asian owned firms, Native American owned firms, and bi/multiracial-owne firms are more likely to be awarded MNAА prime contracts or subcontracts, as the estimated odds ratio is greater than unity and statistically significant in those instances. The less than unity but statistically insignificant estimated odds ratio for Nonminority Female owned firms, suggests that they are possibly relatively more

likely to be awarded MNAA prime contracts or subcontracts. The greater than unity but statistically insignificant estimated odds ratio for other race owned firms, suggests that they are possibly relatively less likely to be awarded MNAA prime contracts or subcontracts. In general, the parameter estimates in Tables 62-63 suggest that for certified disadvantaged enterprises, airport concessions certified disadvantaged enterprises, Asian Pacific Islander owned firms, and other race owned firms, disparities in MNAA prime contracts and subcontract awards are possibly based upon a firm’s MWDBE status.

*Table 62: Logit Parameter Estimates (Odds Ratio): Certified MWDBE Status and Never Served as Contractor/Subcontractor for MNAA in MNAA Market Area*

*MNAA Disparity Study*

	<b>Coefficient</b>	<b>P-value</b>
<i>Regressand:</i> Served as neither contractor/subcontractor on contract since 1/1/14: (Binary)		
Owner has more than 20 years’ experience	0.2887	<b>0.0284</b>
More than 10 employees	0.3009	0.1150
Firm owner has a baccalaureate degree	1.6474	0.4121
Firm gross revenue greater than 1.5 million	0.9480	0.9505
Firm Bonding limit greater than 1.5 million	0.5623	0.6253
Financing is a barrier for securing MNAA project	3.4659	0.2178
Firm is in the construction sector	1.1062	0.8987
Firm is qualified to do business with MNAA	0.2871	0.1882
Firm is registered to do business with MNAA	1.0889	0.8994
Firm is willing/able prime contractor for MNAA	0.4317	0.1428
Firm is willing/able subcontractor for MNAA	5.0624	<b>0.0000</b>
Firm is a certified minority business enterprise	0.7994	0.7340
Firm is a certified woman enterprise	0.7667	0.6614
Firm is a certified disadvantaged business enterprise	1.2497	0.7180
Firm is an airport concessions certified disadvantaged business enterprise	2.7614	0.2907
Firm is a certified small business enterprise	0.3415	<b>0.0660</b>
Observations	170	
Pseudo R <sup>2</sup>	0.2183	

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*Table 63: Logit Parameter Estimates (Odds Ratio): Race/Ethnicity/Gender Status and Never Serving as Contractor/Subcontractor for MNAA in MNAA Market Area*

*MNAA Disparity Study*

	<b>Coefficient</b>	<b>P-value</b>
<i>Regressand: Served as neither contractor/subcontractor on contract since 1/1/14 (Binary)</i>		
Owner has more than 20 years' experience	0.2271	<b>0.0103</b>
More than 10 employees	0.2695	0.1242
Firm owner has a baccalaureate degree	1.5072	0.4688
Firm gross revenue greater than 1.5 million	0.7061	0.7263
Firm Bonding limit greater than 1.5 million	0.4680	0.5121
Financing is a barrier for securing MNAA project	3.6290	0.1294
Firm is in the construction sector	1.1340	0.8944
Firm is qualified to do business with MNAA	0.3112	0.2579
Firm is registered to do business with MNAA	0.7345	0.6424
Firm is willing/able prime contractor for MNAA	0.3731	<b>0.0885</b>
Firm is willing/able subcontractor for MNAA	9.2408	<b>0.0000</b>
Firm is Black American owned	0.5852	0.3824
Firm is Hispanic American owned	0.5945	0.6572
Firm is Subcontinent Asian owned	0.9763	<b>0.0000</b>
Firm is Asian Pacific Islander owned	5.9967	0.2276
Firm is Native American owned	0.9685	<b>0.0000</b>
Firm is bi/multiracial owned	0.9836	<b>0.0000</b>
Firm is other race owned	6.8336	0.1629
Firm is Nonminority Female owned	0.6204	0.4112
Observations	170	
Pseudo R <sup>2</sup>	0.2246	

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**1. MWDBEs, Private Sector Contracting, and Perceived Discrimination in the MNAA Market Area**

The low success of MWDBEs relative to non-MWDBEs in securing MNAA prime contracts and subcontracts could result from them facing discrimination both in securing private contracts outside of MNAA, and in their interactions with MNAA. Tables 64-64 reports the outcomes of this comparison based upon size. Tables 66-67 explore if firms perceive they have been discriminated against in the private sector.

The outcomes in Table 64 suggest that compared to non-MWDBEs, certified disadvantaged business enterprises, airport concession disadvantaged business enterprises, and certified disadvantaged enterprises are possibly more likely to be awarded large private sector contracts (as the estimated odds ratio is greater than unity, but statistically insignificant in these instances). However, the estimated but statistically insignificant odds ratio for certified minority business enterprises indicate the possibly that such certified minority enterprises are less likely to be awarded large private sector contracts relative to non-MWDBEs. Women-owned business enterprises are relatively less likely to be awarded large private contracts, as the estimated odds ratio is less than unity and statistically significant. Disaggregating by race/gender, the parameter estimates in Table 65 suggest that relative to non-MWDBEs, Asian Pacific Islander owned firms are more likely to be awarded large private sector contracts as the estimated odds ratio is greater than unity, and statistically insignificant in this instance. The same is possibly true for Black American owned firms and other raced owned firms as the estimated odds ratio is greater than unity and statistically insignificant in these instances. The statistically significant estimated odds ratio for bi/multiracial owned firms suggest they are relatively less likely to be awarded large private sector contracts, and this is possibly true for Hispanic American owned firms, Subcontinent Asian owned firms, and Nonminority Female owned firms. In general, the parameter estimates in Tables 64-65 suggest that MWDBE status appears to have an adverse impact on contracting success in the private sector outside of MNAA. This further suggests that if private sector contracting experience is positively correlated with public sector contracting success, contracting disparities at MNAA between MWDBEs and non-MWDBEs are potentially explained, at least in part, by private sector discrimination against MWDBEs.

The parameter estimates in Table 64 suggest that relative to non-MWDBEs, certified minority business enterprises, and certified disadvantaged business enterprises more likely to have experienced private sector discrimination, as the estimated odds ratio is greater than unity, and statistically significant in these instances. This is also possibly true for certified Nonminority Females enterprises and certified disadvantaged enterprises as the estimate odds ratio is greater than unity, but statistically insignificant in these instances.. Disaggregating by race/gender, the parameter estimates in Table 65 suggest that relative to non-MWDBEs, Black American owned firms, Native American owned firms, bi/multiracial owned firms, and Nonminority Female owned firms are more likely more likely to have experienced private sector discrimination, as the estimated odds ratio is greater than unity, and statistically significant in these instances. This is also possibly true for other race owned firms, as the estimated odds ratio is greater than unity, but statistically insignificant. The parameter estimates in Tables 64-65 suggest that if private sector contracting success is positively correlated with public sector contracting success, contracting disparities at MNAA between MWDBEs and non-MWDBEs are potentially explained, at least in part, by private sector discrimination against MWDBEs.

Table 64: Ordinal Logit Parameter Estimates (Odds Ratio): Certified MWDBE Status and Largest Contract Awarded in MNAA Market Area

MNAA Disparity Study

	Coefficient	P-value
<i>Regressand:</i> Largest single contract awarded since 6/1/13 (Ordinal)		
Owner has more than 20 years' experience	1.5023	0.1440
More than 10 employees	3.4831	<b>0.0002</b>
Firm owner has a baccalaureate degree	0.9280	0.7845
Firm gross revenue greater than 1.5 million	5.5792	<b>0.0014</b>
Firm Bonding limit greater than 1.5 million	2.2650	<b>0.0156</b>
Financing is a barrier for securing MNAA project	1.0753	0.8964
Firm is in the construction sector	2.4297	<b>0.0291</b>
Firm is qualified to do business with MNAA	3.2318	<b>0.1080</b>
Firm is registered to do business with MNAA	1.2293	0.5907
Firm is willing/able prime contractor for MNAA	1.2033	0.6471
Firm is willing/able subcontractor for MNAA	0.8577	0.7897
Firm is a certified minority business enterprise	0.6165	0.2643
Firm is a certified woman enterprise	0.4770	<b>0.0531</b>
Firm is a certified disadvantaged business enterprise	1.5185	0.2501
Firm is an airport concessions certified disadvantaged business enterprise	1.1030	0.8692
Firm is a certified small business enterprise	1.4050	0.2965
Observations	170	
Pseudo R <sup>2</sup>	0.1377	

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Table 65: Ordinal Logit Parameter Estimates (Odds Ratio): Race/Ethnicity/Gender Status and Largest Contract Awarded in MNA Market Area

MNA Disparity Study

	Coefficient	P-value
<i>Regressand</i> : Largest single contract awarded since 6/1/13 (Ordinal)		
Owner has more than 20 years' experience	1.3635	0.2712
More than 10 employees	3.2370	<b>0.0003</b>
Firm owner has a baccalaureate degree	0.9114	0.7394
Firm gross revenue greater than 1.5 million	5.6942	<b>0.0008</b>
Firm Bonding limit greater than 1.5 million	2.0556	0.0276
Financing is a barrier for securing MNA project	1.3831	0.6013
Firm is in the construction sector	3.1199	<b>0.0134</b>
Firm is qualified to do business with MNA	2.7294	0.1694
Firm is registered to do business with MNA	1.2396	0.5313
Firm is willing/able prime contractor for MNA	1.1109	0.8042
Firm is willing/able subcontractor for MNA	1.0358	0.9538
Firm is Black American owned	1.0833	0.8188
Firm is Hispanic American owned	0.4365	0.5725
Firm is Subcontinent Asian owned	0.1792	0.4410
Firm is Asian Pacific Islander owned	5.5567	<b>0.0240</b>
Firm is Native American owned	0.8802	0.8625
Firm is bi/multiracial owned	0.9538	<b>0.0000</b>
Firm is other race owned	2.6468	0.4277
Firm is Nonminority Female owned	0.6782	0.1960
Observations	170	
Pseudo $R^2$	0.1421	

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Table 66: Logit Parameter Estimates (Odds Ratio): Certified MWDBE Status and Private Sector Discrimination in MNAA Market Area

MNAA Disparity Study

	Coefficient	P-value
<i>Regressand:</i> Firm experienced private sector discrimination: (Binary)		
Owner has more than 20 years' experience	0.8408	0.7326
More than 10 employees	1.3225	0.6191
Firm owner has a baccalaureate degree	0.8599	0.7659
Firm gross revenue greater than 1.5 million	0.3156	<b>0.0542</b>
Firm Bonding limit greater than 1.5 million	2.5628	0.1760
Financing is a barrier for securing MNAA project	0.1505	<b>0.0126</b>
Firm is in the construction sector	0.3373	0.2747
Firm is qualified to do business with MNAA	0.8899	0.8941
Firm is registered to do business with MNAA	0.5377	0.3920
Firm is willing/able subcontractor for MNAA	0.5938	0.4697
Firm is a certified minority business enterprise	3.4259	<b>0.0189</b>
Firm is a certified woman enterprise	1.1191	0.8068
Firm is a certified disadvantaged business enterprise	1.8580	0.2706
Firm is an airport concessions certified disadvantaged business enterprise	0.8367	0.7917
Firm is a certified small business enterprise	2.2654	<b>0.0890</b>
Observations	170	
Pseudo R <sup>2</sup>	0.2186	

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Table 67: Logit Parameter Estimates (Odds Ratio): Race/Ethnicity/Gender Status and Private Sector Discrimination in MNAА Market Area

MNAА Disparity Study

	Coefficient	P-value
<i>Regressand:</i> Firm experienced private sector discrimination: (Binary)		
Owner has more than 20 years' experience	1.2626	0.6620
More than 10 employees	0.7716	0.6365
Firm owner has a baccalaureate degree	0.7577	0.5652
Firm gross revenue greater than 1.5 million	0.5611	0.3432
Firm Bonding limit greater than 1.5 million	2.8492	0.1620
Financing is a barrier for securing MNAА project	0.2103	<b>0.0606</b>
Firm is in the construction sector	0.5986	0.5630
Firm is qualified to do business with MNAА	1.5636	0.6625
Firm is registered to do business with MNAА	0.8705	0.8420
Firm is willing/able subcontractor for MNAА	0.6207	0.4904
Firm is Black American owned	6.3912	<b>0.0002</b>
Firm is Hispanic American owned	0.9375	<b>0.0000</b>
Firm is Subcontinent Asian owned	0.9742	<b>0.0000</b>
Firm is Asian Pacific Islander owned	0.9714	<b>0.0000</b>
Firm is Native American owned	3.4126	<b>0.0472</b>
Firm is bi/multiracial owned	1.0678	<b>0.0938</b>
Firm is other race owned	3.0243	0.2103
Firm is Nonminority Female owned	2.3335	<b>0.0753</b>
Observations	170	
Pseudo R <sup>2</sup>	0.2563	

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## 2. The Perceived Role of Informal Contracting Networks

Access to informal networks matter for success in a wide variety of economic outcomes.<sup>72</sup> Public contracting outcomes could also be conditioned on a firm's access to informal networks that have advantages—due to say experience, political capital, insider knowledge—that are proportional to success in public contracting. If for example, informal networks are have a monopoly or dominate public contracting at MNAА, and these networks exclude non-Non-MWDBEs, firm owned by non-Non-MWDBEs could be disadvantage with respect to competing for, and winning public contracts at MNAА. In Tables 68-69, we estimate the effects of being an SWMDBE on the perception that informal networks dominate/monopolize public contracting at MNAА.

<sup>72</sup> See: Gail M. McGuire,. 2002.. "Gender, race, and the shadow structure: A study of informal networks and inequality in a work organization." *Gender & Society*, 16: pp. 303 - 322.



The parameter estimates in Table 68 suggest that relative to non-SWDBEs, certified minority business enterprises are more likely to perceive that contracting at MNAA is monopolized/dominated by informal networks, as the odds ratio is positive and statistically significant in this instance. This is possible true for certified Nonminority Females enterprises, certified disadvantaged business enterprises, and certified small business enterprises, as the estimate odds ratio is less than unity, but statistically insignificant in these instances. Airport concessions certified disadvantaged business are possibly relatively less likely to perceive that contracting at MNAA is monopolized/dominated by informal networks, as the estimated odds ratio is less than unity, but statistically insignificant. Disaggregating by race and gender, the parameter estimates in Table 69 suggest that Black American owned, Native American owned, bi/multiracial owned, and Nonminority Female owned are more likely to perceive that contracting at MNAA is monopolized/dominated by informal networks, as the odds ratio is positive and statistically significant in these instances. This suggests that for these particular MWDBE firms, perceptions of informal networks dominated/monopolized by non-MWDBEs could be a driver of disparities between SMWBDEs and non-SMWBDEs in actual awards if contracting success is proportional to bidding. To the extent that this perception drives actual behavior, it could potentially be a constraint on the number of bids submitted by MBEs, and a possible driver of disparities in actual awards if contract success is proportional to bidding.

*Table 68: Logit Parameter Estimates (Odds Ratio): Certified MWDBE Status and Informal Networks in MNAA Market Area*

*MNAA Disparity Study*

	Coefficient	P-value
<i>Regressand:</i> Informal network dominates/monopolizes contracting at MNAA (Binary)		
Owner has more than 20 years' experience	0.4153	<b>0.0235</b>
More than 10 employees	0.7522	0.4964
Firm owner has a baccalaureate degree	1.4383	0.3171
Firm gross revenue greater than 1.5 million	0.7721	0.5804
Firm Bonding limit greater than 1.5 million	0.6120	0.4568
Financing is a barrier for securing MNAA project	0.4981	0.3048
Firm is in the construction sector	0.3941	0.1680
Firm is qualified to do business with MNAA	2.4874	0.1778
Firm is registered to do business with MNAA	0.3771	<b>0.0897</b>
Firm is willing/able subcontractor for MNAA	0.8623	0.8474
Firm is a certified minority business enterprise	5.3616	<b>0.0005</b>
Firm is a certified woman enterprise	1.1471	0.7366
Firm is a certified disadvantaged business enterprise	1.4495	0.4038
Firm is an airport concessions certified disadvantaged business enterprise	0.2446	0.1257
Firm is a certified small business enterprise	1.5493	0.2754
Observations	170	
Pseudo R <sup>2</sup>	0.1937	

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Table 69: Logit Parameter Estimates (Odds Ratio): Race/Ethnicity/Gender Status and Informal Networks in MNAA Market Area

MNAA Disparity Study

	Coefficient	P-value
<i>Regressand:</i> Informal network dominates/monopolizes contracting at MNAA (Binary)		
Owner has more than 20 years' experience	0.4936	<b>0.0804</b>
More than 10 employees	0.6102	0.2832
Firm owner has a baccalaureate degree	1.2623	0.5415
Firm gross revenue greater than 1.5 million	1.2158	0.7201
Firm Bonding limit greater than 1.5 million	0.6081	0.4550
Financing is a barrier for securing MNAA project	0.5012	0.3567
Firm is in the construction sector	0.6115	0.4743
Firm is qualified to do business with MNAA	2.9227	0.1412
Firm is registered to do business with MNAA	0.5942	0.3139
Firm is willing/able subcontractor for MNAA	0.6799	0.6041
Firm is Black American owned	7.8827	<b>0.0000</b>
Firm is Hispanic American owned	1.2094	0.8347
Firm is Subcontinent Asian owned	1.5981	0.8262
Firm is Asian Pacific Islander owned	0.9835	<b>0.0000</b>
Firm is Native American owned	1.6248	<b>0.0000</b>
Firm is bi/multiracial owned	8.1563	<b>0.0000</b>
Firm is other race owned	0.9752	<b>0.0348</b>
Firm is Nonminority Female owned	2.0332	<b>0.0512</b>
Observations	170	
Pseudo R <sup>2</sup>	0.2392	

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**G. Conclusion**

GSPC’s analysis of disparities in public contracting and subcontracting outcomes at MNAA aimed to provide some policy relevant insight to observed unconditional disparity indices. A descriptive private sector analysis of the MNAA Market Area private sector revealed that in general, being an MWDBE in the MNAA Market Area is associated with lower firm revenue, and less likely to be self-employed, which lends some support to the “but-for” justification for affirmative action in public procurement. Lower revenues for MWDBEs in the MNAA Market Area are suggestive of private sector discrimination that undermines their capacity to enter the market compete with non-MWDBEs firms for public contracting and subcontracting opportunities. In this context, the regression results reported in Tables 68-69 provide specific detail on which particular MWDBEs in the broad MNAA Market Area are potentially constrained by private sector discrimination that could translate into a diminished capacity to compete successfully for public contracts with MNAA. The parameters estimates from the GSPC sample suggest that Black American

owned firms, Native American owned firms, bi/multiracial owned firms, and Nonminority Female owned firms are particularly harmed by perceived private sector discrimination as the estimated odds ratio for the perception of being discriminated against in the private sector is statistically significant and less than unity relative to firms owned by non-MWDBEs.

Overall, the GSPC disparity analysis explicitly links a business firm's MWDBE status to public contracting outcomes with MNAА in the Nashville market area. Parameter estimates from categorical regression models suggest that MWDBE status has no statistically significant effect on entering the Nashville market area as a new firm. This suggests that any differential capacities/abilities that accrue with market experience are not drivers of any MNAА public contracting disparities between MWDBEs and non-MWDBEs in the Nashville market area. We also find that in the Nashville market area the credit capacity of MWDBEs owned by Subcontinent Asians, Asian Pacific Islanders, and possible for Black American owned firms, certified disadvantaged business enterprises, airport concessions certified disadvantaged business enterprises, and certified small business enterprises is constrained relative to non-MWDBEs. This suggests that any MNAА public contracting disparities between SBEs and non-MWDBEs can potentially be explained by MWDBEs facing credit market discrimination.

The results of the GSPC disparity analysis provide a framework to rationalize observed disparities in public contracting outcomes/success with MNAА between MWDBEs and non-MWDBEs in the Nashville market area. Our regression analysis suggests that any observed disparities in public contracting outcomes between MWDBEs and non-MWDBEs are not explained by differential capacities for public contracting success with MNAА. This follows as a result of our regression specifications controlling for firm public contracting capacity by including measures for the education level of the firm owner, the age and market tenure of the firm, the size of the firm with respect to the number of employees and revenues, firm bonding capacity, willingness and ability to do business with MNAА, and firm financial standing. This inclusion of these control covariates in our regression specifications permit an assessment of public contracting success/failure conditional on MWDBE and non-MWDBE public contracting capacity. The existence of public contracting success disparities between MWDBEs and non-MWDBEs— particularly when disaggregating by racial/ethnic status of owners even after controlling for capacity suggests that relative to non-MWDBEs, MWDBEs face barriers independent of their capacity—or their ability—in securing public contracts and subcontracts with MNAА. Perhaps most indicative of disparities in public contracting at MNAА, our results in Tables 58-59 reveal that, with the exception of airport concessions certified disadvantaged firms, the likelihood of MWDBEs never receiving a prime contract was higher relative to non-MWDBEs over the time period under consideration in our analysis. In this context and coupled with our findings of perceived private sector discrimination being higher for firm owners who are Black, native American, bi/multiracial or Nonminority Females, and non-MWDBEs dominate/monopolize informal networks that are advantaged in securing prime contracts with MNAА, our results are also consistent with disparities between MWDBEs and non-MWDBEs in securing prime contracts and subcontracts with MNAА being driven, at least in part, by private sector discrimination against MWDBEs that undermines their ability to secure MNAА contracts and subcontracts.

## VII. ANECDOTAL EVIDENCE ANALYSIS

### A. Introduction

The anecdotal evidence chapter of this Disparity Study provides an analytical assessment of the views, ideas, perspectives, experiences, and beliefs of business owners and community organizations who are stakeholders in the Relevant Market as it relates to doing business with the Metropolitan Nashville Airport Authority (MNAA). Although, except for the survey data, anecdotes may not rise to the level of empirical data, they do assist GSPC in make recommendations. This is particularly true with the anecdotes are consistent with issues born out in the quantitative analyses. It should be noted, that in many cases, the expressions of the interviewees may not comport with the policies, procedures, and practices of MNAA and may not include acknowledgments of programs already in place with MNAA. Although GSPC encourages the reader to review the policy chapter of this study, anecdotal evidence is the valid perceptions of those giving evidence.

GSPC utilized a variety of methods of qualitative data collection to meet the goals of engaging as many individuals as possible to participate in the study and providing multiple layers of evidence collection to track regularly occurring responses or views. Step one of the process was to invite members of the community to an informational meeting to educate them on the purpose of the Study and of its methods. Subsequently, the Study team solicited stakeholder engagement through a variety of forums, including one on one interviews, a focus group, a web survey, two public hearings, email commentary and meetings with several local organizations.

A random selection of local small and diverse vendors was invited to participate in 30- to 60-minute interviews in person or via phone. A separate randomly chosen group took part in an enclosed focus group discussion mediated by a member of the Study team. In addition, the Study team conducted two separate public hearings and invited all area community stakeholders, businesses and organizations to articulate their experiences on the record. Both public hearings were widely advertised using social media, press releases, email blasts, MNAA and a website designed specifically for the Study. The Study team also emailed local vendors, bidders and firms in the Metropolitan Nashville marketplace inviting them to complete an online survey regarding their experiences doing business in and with the Airport Authority. Respondents completed 170 of the surveys which provide useful insight including demographic data and a broad reflection on the issues central to business owners. Finally, the Study team conducted interviews with several Metro area community and business organizations to understand their perspectives of the various constituencies and perspectives on doing business with MNAA. Lastly, GSPC gathered email commentary from the community through the duration of the Study.

The following sections outline the feedback GSPC received from these various methods of information-gathering, arranged by type of analysis and by subject matter. It should be noted again that these are the experience and perceptions of the commenter but may not align with MNAA's policies or practices.

### B. Anecdotal Interviews

The Study team conducted a total of thirty (30) interviews with business owners in the Metropolitan Nashville Davidson County, TN marketplace using a random sample from a compiled database of available

firms. The firms interviewed varied across demographics and work types and included four (4) Asian American owned firms five (5) Black American owned firms, five (5) nonminority male owned firms, six (6) Nonminority Female owned firms, four (4) Hispanic American owned firms, three (3) Native American owned firms and three (3) certified ACDBE firms. Firms were interviewed represented a variety of trade areas, including Construction, Engineering and Design, Maintenance, Security, and Communication, and several identified as MWBEs or small businesses. Though the interviews touched on various topics related to doing business with the Metropolitan Nashville Airport Authority and within the wider Metropolitan Nashville marketplace, both public and private, the narrative below is laid out thematically based on the responses that recurred in several interviews.

### 1. Informal Networks

Informal networks go beyond building relationships. At best, informal networks operate to favor the same firms because they are a known entity or have done work for the agency before and at worst, operate as a back channel that provides information and preference to the same firms. In both cases, they exclude the entrance of new firms into doing business with a public agency. In the private sector, firms can legitimately and exclusively use the same firms over and over, but with public money, that is not a permissible practice because it feeds a continuing practice of exclusion of underutilized tax paying populations.

Various demographic groups of those interviewed referred in some degree to the presence and influence of an informal network of business owners and MNAA officials who influenced bidding determinations. Several firms indicated that they benefited personally from having connections – or at least some semblance of connections – to prime contractors or Airport Authority officials. AI-10, AI-11, AI-21 and AI-22 admitted that these contacts helped them get opportunities and repeat business with the airport. According to AI-22, “networking and hard work are the best ways to get new work,” acknowledging previous construction contacts made before she launched her own business had a significant impact on business opportunity. AI-13 said his relationship to a government official based in Memphis ensured that his business, one of only two certified minority owned subcontractors during the mid-1980s, kept a job. “We received an open contract for \$25,000,”. AI-10 said that he was “able to expand business through connections and word-of-mouth because of the high levels of service we provide.” AI-11 even suggested that the Airport Authority create opportunities for prospective vendors to build and connect with these networks to increase their odds of winning a bid. The vendor said he would have a better chance to land a contract if “there were more opportunities to build relationships with MNAA purchasing managers,” and if the owner is closer to Metro and MNAA diversity offices.”

There were other firms, however, that complained about being excluded from MNAA contracts because of informal networks. AI-11 said the biggest barrier to doing business with MNAA was “who you know.” And while AI-13 had obtained work, he said he knew of other minority vendors who did not win bids because of airport staff “directing contracts to those they favored”. AI-2 acknowledged that when serving as a prime he would repeatedly select the same architecture or design firms as subcontractors because of a limited number of firms possessing the specific qualifications needed to complete the job. However, AI-23 has skillsets that align very closely with those of AI-2, owner of a structural engineering design firm who says he has not been able to win contracts with MNAA. “I have attempted to be part of the bid at every opportunity but have not been included on a single bid team.” AI-2 did identify one MBE – ironically, also interviewed by GSPC as AI-20 – that was used as a subcontractor. He also speculated that after failing to win an MNAA bid for at least four years that he succumbed to informal networking. “Maybe the other firms had a more established relationship,” AI-2 said. AI-23 said that upon request, MNAA engineers recommend “preferred” firms to the primes ahead of issuing the RFP. “A prime told me, ‘we were told our chances would be better if we have a specific contractor on our team.’”

According to AI-25 a local marketing and design firm, doing business with any governmental agency is basically a “good ole boys’ network”, a colloquial term referring to an informal network of individuals made privy to information or access that places them at a competitive advantage. Because of this group, he believes minorities and small business people struggle to get the attention they deserve. These experiences are echoed by AI-26, a Nonminority Female owned engineering firm who states that affiliation with industry groups such as the Associated General Contractors allowed her introductions to local government officials and administrators that allowed her to build relationships that have assisted her in gaining access to this network. AI-28, a current vendor with MNAA states that she first obtained business at MNAA when she met an MNAA Executive at an event, where, upon recognizing her ability he referred her to the MNAA Communications Department as a qualified vendor.

## 2. Accounts of Discrimination

Neither race nor gender discrimination was a substantial complaint among most of the minority and Nonminority Female owned firms interviewed for the MNAA disparity study. Many said they had not experienced any instances of discrimination. On the contrary, AI-20 said the City of Nashville and the Metro area were “very warm and welcoming.” While others spoke about their appreciation for MNAA’s intentionality in being inclusive (AI-27).

However, despite not reporting any personal experiences of discrimination, several business owners made subtle references to perceptions about discriminatory presumptions that could be made about them because of their race or gender status. AI-27, who came to America as a refugee as a young child MBE firm, also noted how “he feels lucky to be in a white-collar business” because often “blue-collar companies or (vendors) with an accent complain about feelings of discrimination.” Similarly, he pointed to how “he speaks English like a native Tennessean” as an advantage in navigating the business community. AI-26 believes that her status as an Army veteran helps garner respect from the males who dominate her industry.

AI-5 a minority retailer at MNAA suggested that a lack of understanding of the RFP process or a lack of adequate capital could leave potential participants “vulnerable to inadvertent discrimination.”

AI-4, however, attributed slow pay from some agencies in the market to direct discrimination. “If not for my niche industry ... I could see lots of difficulty doing business with MNAA and other government agencies.” He said he currently has invoices outstanding from the State dating back to 2015. “Color matters. If I were a white male vendor for 10 years, I would get a better response.”

He said he went to a location after work with a group of nonminority colleagues who worked for government agencies. There were several young Nonminority Females at the location. When an Asian woman approached, they said that finally there was someone for him. “This world view severely impacts the way they do business,” AI-4 said. “They see me as different.” In doing business with banks, he said the world sees him as a minority businessperson instead of a successful businessperson.

Several nonminority firms felt that they were being discriminated against. AI-14 said he was not aware of any discrimination, “unless it’s reverse.” He said minority subcontractor quotas have often forced him to have to make hires he did not need in order to win a bid.

### 3. Business Fronts and Pass-Throughs

The barriers to doing business with MNAA aligned primarily with process and economic factors. However, given the competitive climate and rigors of the RFP and bidding processes, some vendors have adopted strategies to circumvent diversity goals designed to increase opportunities for minority owned and Nonminority Female owned businesses.

One such way is the use of “front” and “pass-through” businesses, a form of certification fraud where businesses are established or partnered with that are not legitimate M/WBE businesses. Hispanic American subcontractor AI-1 said that the practice is an open secret. “It’s known in the industry that the general contractors ... they have certain ways to get around the system.” He pointed to business owners who subcontract shell companies set up in the names of qualifying family members. “I’ve heard in the past that there was a general contractor they claimed had used a Small Business, WBE or MBE designation. It turned out that it was the general contractor’s wife, so it was a disadvantage to other firms.”

As mentioned previously, AI-14 admitted to taking on an unneeded hire to qualify for bids with certain quotas. “Occasionally, you have to hire a gate security guard when you don’t need one,” to meet the 5-percent minority requirement, he said. Nonminority male prime contractor AI-7 said that MNAA is complicit in aiding vendors in this practice. “If you’re chasing a project and they’ve got an MBE and WBE percentage they want to hit, they point blank tell you how to do it and you’ve got to be creative in putting your team together,” he said. However, Hispanic American subcontractor AI-1 warns, “you’re at the mercy of the general contractor hoping they do the right thing.” In an example of how this practice can negatively impact MBE or DBE subcontractors, AI-10 described what happened when he was hired to help win a bid outside MNAA. “I was dropped from the bid after the contractor used my DBE status to win the project.”

This was also, inadvertently raised as a flag in the study team interviews themselves, where in several cases, certified M/WBE firms with M/WBE ownership would point towards nonminority male representatives for interview who held management responsibility or stake in the business.

### 4. Barriers to Small and Diverse Businesses

There were varying opinions about the processes for bidding or responding to an RFP. For certification. AI-20, AI-12, AI-9 and AI-8 believed that MNAA process was easy, and even that MNAA was helpful. “They understand to a large part the challenges of small businesses, and as a result, they do their best to accommodate and overcome those obstacles,” AI-12 said. AI-20, a minority and owner of a structural engineering firm, says certification helped businesses succeed by “leveling the playing field and matching small business to large businesses.” AI-9, a security firm, indicated that the only barriers to participation were standard business-related concerns: “maintaining sufficient qualified staff to cover every shift.” And AI-7 experienced no problems with the bidding process. “Either you’re qualified or you’re not,” he said. AI-3 had no problems with the online bidding tool and said Airport Authority staff was available to help if needed. “They make it simple”. AI-27 echoed this, stating “MNAA really forces larger contractors to reach out to include minority sub-contractors because of their Federal guidelines for DBE participation.

AI-10, AI-2 and AI-16 described the bidding process as tough, but fair. He said he has seen MNAA reject bids that did not meet contractor goals: “This set the tone for how I conducted business with the airport.” Likewise, AI-16 said he benefitted from the tough lesson he learned from his first failed attempts to bid for a contract. “I met with procurement officials to see my mistakes.” Now the minority construction firm owner is very careful to double-check his RFP submissions to eliminate errors.

Although AI-2 deemed the procurement process “fair,” he called the AeroBidz website “cumbersome” and “clunky.” “Sometimes we’ve had submittals denied because of problems with the website, yet the deadlines were never extended.” Airport retailer AI-5 complained that the learning curve for the RFP process was too steep for first timers that could lead to critical mistakes that end your business before it is started. He recommended that MNAA establish standardized training for the RFP process. AI-6 said the bidding process required too much “red tape,” and AI-16 said the bidding process was difficult to understand.” AI-21 also struggled with the bidding mechanism. The online procurement platform is “problematic” in navigating and takes too long to use. AI-26 compared it to “a beauty contest” stating the RFP process for government agencies is “horrible” because he interpreted RFPs to say that you cannot interact with the client to ask questions to determine their real needs. He believes it is a “fake way” of determining who actually does the best work and RFPs are written to make it as hard as possible for small and diverse companies.

Finance was a concern for only certain types of vendors. Two of the four retailer vendors identified money as an obstacle and opted for alternatives to operating their own brick-and-mortar locations in the airport. AI-5 and AI-17 said that obtaining space at the airport cost prohibitive. “Small businesses need substantial funding to open a retail space in the airport,” AI-5 said. The cost of a storefront in the airport is \$350 per square foot, versus the \$16 per square foot that AI-5 paid for his North Nashville store. He settled on a contract to distribute his product to another retailer in the facility. AI-17 opened her family business at a storefront location outside the airport but determined that “we needed more money to get started” inside the airport. Another retailer, AI-18, also supplies product to airport restaurants. However, AI-18 said he would be “happy to bid on an RFP.” Retailer AI-6 self-finances using a credit card to overcome cost concerns. AI-5 suggested that MNAA establish a financial support or grant system to help budding businesses successfully launch and compete for contracts at the airport.

## 5. Outreach

Several interviewees offered glowing reviews for MNAA staff for keeping lines of communication open as before and during the RFP and bidding processes. There were very few complaints about the way procurement information was distributed to prospective and/or returning bidders. If there were, the concern was that phone calls were not returned in a timely manner, which still represents a source for improvement for MNAA. Minority structural engineering firm AI-12 called the airport a “sophisticated purchaser of services ... that has also helped be supportive and understanding with firms that are submitting for services.” AI-12 said the MNAA staff is easy to reach and communicate with. They hold meetings where you need to show up. We are always soliciting business everywhere. “MNAA is a good place to go to get experience,” AI-12 said. AI-16 counts among the positives the ability to get questions about proposals answered. However, the minority owned construction company complains that staff from MNAA’s diversity office are slow to respond to calls. “Often, calls are not returned,” he said.



### C. Public Hearings

GSPC held two public hearings on August 6, 2019 and August 7, 2019 in Nashville. Participants were invited via email blast, organizational outreach, and distribution of a flyer, Eventbrite, and press release that were sent out to all the vendors in the Study team's database. At both hearings, a GSPC representative introduced the Study and the purpose of the meeting, before opening the floor to participants. All participants were asked to state their name for the record and a transcript was produced. At each meeting, the Study team heard from a mixture of businesses and business advocacy organizations, the majority of whom had specific ideas regarding MNAA's program, barriers to participation, and how it may be improved.

At the first public hearing, PH-3, a local engineering firm thanked the airport officials for creating the work that doubled the size and capacity of his staff. He pointed to the opportunity for MNAA to corral all the businesses and vendors working there into one place on a regular occasion for networking. "It's important to get a forum, whether it's online, whether it's groups like this, whether it's evening mixers, whether it's daytime luncheons, whatever we can do." He referred to another vendor in the Public Hearing who sold apparel and said making that connection will likely lead to his company doing business with the retailer. "It would be helpful for me to work with this gentleman and help each other out."

At the same hearing, PH-1, owner of a retail business that was interested in becoming an airport concessionaire, lamented that the airport was too expensive for his business to open a store front operation. He said he was in several malls throughout the Metro area but compared to rent for a mall location the airport was "exorbitant." He carries Major League Soccer, as well as Nike, Adidas, Umbro and Puma and would love to be able to at least display some of his products in the airport. PH-1 said he participated in several airport-sponsored small business functions with the hope of finding a way to work with MNAA. Unfortunately, he cannot make enough to justify the expense. He said to be in an airport store front on a monthly basis would be "like giving everything that we probably would make back to rent."

Another participant spoke up at the first hearing to describe his vision for the airport and for Metropolitan Nashville. PH-4 said he "always looked at what they did in Atlanta back at the time when Maynard Jackson was mayor and they established that 35 percent minority participation goal. And they were able to turn the city around." The representative a local construction business said that development at the airport could likely go on for the coming 10 years, and leaders in the Metro area and other up-and-coming cities should use burgeoning airports to springboard their respective cities into a renaissance.

PH-2, a partner with a consulting firm, stood to ask about the results of two previous disparity studies for MNAA and the Metro area. "It does make sense that if we want to make comments on the disparity study, if it's applied to the airport – and I don't know if that's true – then maybe we should know the results of what actions have been applied since then."

At the second hearing, PH-5, who owns an engineering firm, said that the airport has been her business's life blood. "You've kept us alive for the last three years," she said. Her firm is small, but possesses "big knowledge," she said. But she said she was able to do large jobs as a subcontractor and asked how MNAA selects subcontractors. "I hope you have projects set aside to compete with my size – like for small businesses – whatever the threshold is." PH-5 also was at the second hearing to represent a Nonminority

Female owned business and learn about how to earn repeat business at the airport. He said the company won a contract but did not follow up with MNAA for subsequent contracts. The company did not know how to re-engage to renew. "Is there an annual re-up? Is there something we need to do on a regular basis to keep that connection?" He said he appreciated receiving consistent communication from the Airport Authority and how useful the website was. PH-5 said his company wanted more of a relationship with the airport with the idea as possibly serving as a marketing partner.

#### **D. Focus Group**

GSPC held a focus group on August 7, 2019 and selected potential participants from a random group of certified M/WBE and diverse vendors in the Airport Authority's database. The purpose of the focus group was to allow a semi-anonymous dialogue between business owners of varying backgrounds.

Professional service provider and black female business owner FG-4 said there is a clear effort by MNAA to engage diverse businesses. The Airport Authority recently hosted outreach events sponsored in conjunction with the General Contractors that included "Understanding ACDBEs" workshops and Business-to-Business outreach programs. She believes the airport vendor list could be better and thinks the airport has made intentional decisions to grow and engage small and diverse firms. MNAA has developed a new business venture to speak to concessions work. She says there are little things like parking that vendors often do not consider when pricing overhead and bids on airport work. The airport also requires street pricing so they cannot increase prices to offset costs. So, FG-4 suggested workshops on commodity codes registrations so firms can clearly communicate what services they offer.

Black business owner FG-1b said MNAA continues to reach out to a diverse community of business owners, informing them of opportunities. He said his company was involved with the airport in the past. But as a smaller company with only 30 employees, he must be careful not to spread his employees too thin. If MNAA keeps reaching out, FG-1b will continue to be responsive. Right now, it is just not a great time for his firm because they are so busy. He believes the airport should remain consistently engaged, and he does not want to appear to be "denying" bid opportunities. He anticipates bidding on projects in the future and wants to make sure that the flow of information does not stop.

FG-15, a black business owner, has been working about 33 years. He says that for minority participation, once the contract is out to bid 90 percent of the time the "good ole boys" have already picked who they want to use. He says it's all about relationships (the prime is going to use "his guys") and it's all about the cost, "he (the prime) is going to squeeze (the sub) as much as he can to make his money," FG-15 said. Is MNAA serious about minority participation? FG-15 believes so but feels there are serious issues with monitoring on the jobsite. FG-14, a woman business owner, said she's never gotten a call from a prime.

Black woman business owner FG-20 said she has always gotten more money than anticipated. She said the airport always monitors whether she is getting paid aggressively. The last project she worked, a prime decreased her scope and someone from the MNAA called her to ask if she knew about it and was alright with it. At that point she agreed but said that has happened several times. She is usually on the design side. While some complained about primes being slow to submit invoices, she said architects chase her down for invoicing.

FG-3 is a black business owner who has subbed at the airport. He and said airport is supposed to track payments to subcontractors and identify whether they hold retainage – or a dollar amount held for contractors until the end of the project – and whether they are being paid within 15 or 30 days. But recently the airport has not been holding retainage? This creates confusion for small businesses and for dealing with larger companies. There is also a lag time between when subs turn in an invoice and when they get paid, which can go up to 75 or 80 days.

While the tenor of the group was overwhelmingly positive, they made several recommendations that they believed would support opportunities for small and diverse firms. Most prominently, several voiced issues with navigating the airport database and spoke at length about the airport commodity code certification and search process online. They believed that making the website easier to navigate would help prime contractors locate and connect with firms who are actually certified to perform work. The group also encouraged the airport to keep reaching out about opportunities and to increase monitoring and oversight on airport projects.

### **E. Organizational Meetings**

GSPC conducted outreach to community and business organizations and did sit down interviews with several that represent small and diverse businesses. A full list of organizations can be found in Appendix G. Representatives from each organization were interviewed with the goal of attaining insight on the overall perspectives the business community has about working with the Metropolitan Nashville Airport Authority. Reported experiences with MNAA varied among the three organizations with differing levels of success as the result.

Representatives from the ORG-1, which provides business training, capacity building and an incubation program to burgeoning companies, agreed that access to capital is a primary issue for their constituents. A lack of resources to show the bankability of these companies is an issue. They note the federal DBE requirements restrict the ability for diverse vendors to grow by the personal net worth caps, which ultimately are harmful for diverse businesses in government contracting. They see the objective being for small and diverse contractors to eventually grow and scale into becoming large prime contractors, general contractors or even into the program management field, where he sees opportunities to build generational wealth. They believe government programs like those at MNAA too often relegate these DBEs to subcontractor roles. Another SBDC representative called the opportunities available for disadvantaged businesses “lopsided,” pointing to advantages for growth and expansion offered to some groups over others. She said communication with the airport was another point of concern, citing relationships with state and federal agencies and with large prime contractors, but no established relationship with the City or with airport. “We are highly respected by others but not at home,” she said. This lack of information from the airport comes despite efforts to cultivate a relationship, the representative said. “I’m sure there is something there at the airport ... I just don’t know how to get to it.,” she said.

A representative of ORG-2 spoke with the study team and said his organization is developing a partnership with the airport to assist on workforce initiatives and apprenticeship programming but admitted that they were “late to the party” regarding public contracting. The organization focuses on workforce development in urban communities and described MNAA staff as “conscientious” with what seemed to be a greater

commitment to diverse contracting as compared to the City of Nashville. He said the Airport Authority has been in discussions with them to develop financial resources for a Credit Business Associate, apprenticeships and youth programs and has encouraged several prime contractors to reach out to area non-profits to create opportunity zones in which job opportunities would be presented in the related communities. However, the representative said he has yet to see a marked change reflecting the type of equity he expects to see across Nashville as a result of these discussions with the airport. “The proof is in pudding,” he said. “We can sit around the table and dialogue and discuss all day, but at the end of the day somebody has to put some resource to the table to implement the training needed to get people in the pipeline.”

ORG-3 and ORG-4 gave very positive reviews of the airport Authority, with ORG-3 calling the relationship with MNAA “organic” and admitting that a more formal working partnership still needed to be established. The two offices often collaborate on events and the SBA representative reported that one of her organization’s 8a firms was recently awarded a contract with the airport concession project. The lines of communication are free flowing, she said. “If we call, they show up, and if they call us, we’ll show up,” she said. She did point out, however, that the Airport Authority appeared to be understaffed. Despite this, small business owners have reported success with the Airport Authority, particularly with the ACDBE concessions program. It should be noted, however, that SBA offices are in an airport owned building. The SBA representative said this allows her office staff to get more familiar with some of the DBE or 8a janitorial firms that work there.

ORG-4 has a working programmatic relationship with the airport, as they provide DBE supportive services by referral from the airport, including MNAA’s mentor-protégé program. They aim to work with minority, veteran and Nonminority Female owned firms and offer several services, including a business incubator for firms in the Nashville community. For many diverse business owners in the Nashville community, the lack of both human capital and financial capital impact diverse businesses the most. To that end, they aim to build networks of advocates who can assist diverse firms scale with both access to funding and networks. ORG-4 acknowledges that their program is “a little expensive”, costing upward \$1500 a month, but that puts them in position to offer intensive one on one counseling and loans to business owners for working capital. They also work closely with other incubators in the community, such as the Nashville Entrepreneur center, making referrals for businesses in the tech arena because they typically have different needs. According to ORG-4, the airport “gets it” and their program is “the strongest program in the City”. They state that by investing in small and diverse businesses early you help build capacity and early investing (within the first year) gives them a platform to scale. To date, the airport has invested about \$15,000 a client. The airport refers businesses into its 2-year program by identifying businesses already certified with the airport to help them build capacity. The only recommendation they offered to MNAA would be to increase their financial support to help them reach and service more firms.

## **F. Survey of Business Owners**

In addition to the other methods of anecdotal evidence gathering employed by GSPC, the firm conducted an online survey of business owners that was sent to more than 4000 firms from the Metropolitan Nashville Aviation Authority’s vendor lists. There were 170 firms that completed the survey. The findings from the survey are consistent with the concerns expressed across demographics about the current state of business in the Metropolitan Nashville marketplace. Business owners were primarily concerned with the existence of an exclusionary informal network, a perceived lack of good faith by prime contractors in dealings with small, minority, and Nonminority Female owned subcontractors, and the experience and bonding

requirements, as well as contract sizing that may serve as barriers to participation. The table below shows a selection of results from the survey, the full version of the results of which can be found in Appendix H.

Notably, over half of minority respondents believe that there is an “informal network of prime and subcontractors doing business with the Nashville International Airport that monopolize the public contracting process” (Survey of Business Owners Table 78). Seventy-six percent of Black owned firms, 33 percent of Subcontinent Asians, 40 percent of Hispanic Americans, 100 percent of Native Americans, and 100 percent of Bi-racial and multi-racial business owners selected “yes” to this question. 12 percent of non-minorities and 40 percent of Nonminority Females stated that they believe that this is true. Larger percentages of minority firms agreed or strongly agreed that “I believe that some nonminority prime contractors only utilize S/M/W/DBE/ACDBE companies when required to do so by the Metro Nashville International” (Survey of Business Owners Table 85). In addition, 2 percent of non-minorities, 15 percent of Nonminority Females, 41 percent of Black owned firms, stated that they feel they have experienced discriminatory behavior in the private sector (Survey of Business Owners Table 76).

Survey respondents were also presented with a list of potential barriers to bidding or obtaining work with the Airport. 5 percent of nonminority’s, and 10 percent of Nonminority Females and Black Americans selected “excessive paperwork” as a barrier, along with 20 percent of Hispanic American respondents (Survey of Business Owners Table 34). Financing was identified as problematic by Black Americans at 20 percent and by Hispanic Americans at 40 percent (Survey of Business Owners Table 26). Performance bonds were selected as a barrier by 20 percent of Hispanic American respondents, 33 percent of Subcontinent Asians, and 18 percent of Black American owned firms (Survey of Business Owners Table 33).

*Table 70: Summary of GSPC Survey of Business Owners Responses  
MNAA Disparity Study*

Is your firm ready, willing and able to do business as a prime contractor with Nashville International Airport?	Owner’s Minority Status										Total
	Non minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic American	Native American	Bi-Racial / or Multi-Racial	Publicly Traded Company	Other	
Yes	38 92.7%	43 69.4%	34 69.4%	2 66.7%	1 100%	3 60%	1 100%	1 100%	3 100%	4 100%	130 76.5%
No	3 7.3%	19 30.6%	15 30.6%	1 33.3%	0 0%	2 40%	0 0%	0 0%	0 0%	0 0%	40 23.5%
Total	41 100%	62 100%	49 100%	3 100%	1 100%	5 100%	1 100%	1 100%	3 100%	4 100%	170 100%

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Is your firm ready, willing able to do business subcontractor with Nashville International Airport?	Owner's Minority Status										Total
	No nonminority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic American	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
Yes	34 92.7%	58 69.4%	47 69.4%	3 66.7%	0 100%	5 60%	1 100%	1 100%	3 100%	3 100%	155 76.5%
No	7 7.3%	4 30.6%	2 30.6%	0 33.3%	1 0%	0 40%	0 0%	0 0%	0 0%	1 0%	15 23.5%
Total	41 100%	62 100%	49 100%	3 100%	1 100%	5 100%	1 100%	1 100%	3 100%	4 100%	170 100%

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### G. Email Comments

Throughout the course of the Study, businesses in the Metropolitan Nashville area and those that conduct business with MNAA were encouraged to submit their commentary to the address MNAA@gspclaw.com, which is monitored by the Study team. This method is highly useful to obtain commentary from business owners who are not randomly selected for interview or focus group participation or are not able to attend the public hearings for whatever reason. Such commentary is a supplement to the broader data collected over the course of the Study. Some of the commentary received by GSPC was regarding the programs at the Airport Authority and contracting with MNAA; others dealt with the nature of the study itself.

EC-10 felt strongly that the Study should have also examined Veteran- and Service-Disabled Veteran owned businesses. “Your survey is incomplete,” he said.

Regarding the Airport Authority, EC-4, identifying herself as a “small minority owned business,” said her company completed two different subcontracted projects at the end of 2018, but have yet to be paid for several invoices.

EC-8 said MNAA and his prime clients required his sub design firm carry insurance including a \$5 million professional liability policy. He said that amount was “very expensive for the small/disadvantaged business to obtain.” EC-2 said she learned in an MNAA Supplier Diversity Group meeting that there is no separate MWBE program and all applicants must meet DBE program requirements.

EC-9, among other things, complained that the MNAA Supplier Diversity program is playing favorites in selecting just a small pool of firms that are providing quotes.

## H. Conclusion

Participants from several different forums informed the Study team about concerns with informal network of “preferred” contractors who are frequently selected, stymying diversity of choice for the MNAA bidding process, a need for uniformed training protocols on the airport’s online procurement system and funding assistance for disadvantaged concessioners, and a rash of individuals gaming the disadvantaged business enterprise selection system that can risk bypassing deserving vendors. While the Airport Authority seems to be engaged in the Metro business community, the aforementioned issues reflect areas where improvement can be made in dealing with prospective business partners.

The existence or even perception of informal networks providing opportunities to a seemingly select few contractors and subcontractors was the most prevalent concern among Study participants. The possibility that not everyone is able to do business on an even playing field creates the very disparity that this Study was designed to root out. Some firms admit to directly benefitting from long-term relationships with government or industry influencers, while other disadvantaged companies complained that they were completely shut out of the process because they did not have the right connections. Prime contractors acknowledged returning to “go-to” subcontractors because of a sense of comfort or a lack of awareness of any other capable firms. Some pointed to a history of prime contractors selecting subcontractors earmarked by the Airport Authority. And although that practice and the guilty staff may no longer be in place, the stigma remains to raise doubt among those already marginalized who do not win bids. In this area, the bidding process requires more transparency and a truly impartial selection criterion.

In a somewhat related concern, interviewees identified methods undertaken by prime contractors to sidestep DBE hiring percentage requirements for bidding. Both practitioners and victims of the outlined schemes noted that these tactics were used repeatedly and often would undermine the purpose of the programs. From hiring qualifying individuals or firms to perform menial tasks to dropping firms after being awarded a contract, interviewees stated that such tactics do damage to the impacted firm and challenge the integrity of the Airport Authority'. To address this issue, MNAA must increase the amount of staff available for bidding oversight – a direct response to the insight from one organizational interview. More resources dedicated to reviewing subcontractor hires and conducting post-award interviews could deter such practices.

Repeated concern was raised about the relatively new online bidding tool AeroBidz. From being difficult to understand and learn to malfunctions costing time and actual successful bids, Study participants indicated the need for a change. That change, however, was not demanded in the way of an overhaul or outright replacement of the bidding system. The resounding request was that resources be provided to adequately train users on the software. Also, AeroBidz users polled in this Study requested that manpower be made available to troubleshoot the software when problems arise.

Vendor participants interviewed by the Study team indicated the high cost of concession space as a primary barrier to doing business at the airport. In particular, emerging small or disadvantaged businesses already trying to overcome inexperience and start-up costs find an up-hill battle to be able to afford airport retail placement. By several estimates, store frontage in the airport can be as much as 20 times the cost or more by the square foot as the same space in most parts of Metropolitan Nashville. While options such as airport kiosks, partnerships, or distribution deals present more affordable pathways for new businesses to enter

the airport retail space, these options call for business owners to deviate from their original plans. Offering a low-interest start-up business loan program or sliding-scale lease plan was suggested to provide easier entry into the airport retail marketplace.

## VIII. STUDY CONCLUSION

MNAA has had a long history and commitment to pursuing equity and inclusion in procurement but still has not achieved substantial parity in awarding contracts to minority and women owned firms. This Study found that there was a statistically significant underutilization of MWDBEs in every work category for and all races, ethnicities, and genders, except non-MWDBEs that were overutilized in every work category. In other words, MWDBEs were not utilized to the extent that should be expected based upon their availability in the marketplace.

GSPC believes that the issues that are impacting MWDBE are primarily fine-tuning programs that already exist but have glitches in their implementation. For example, MNAA has a subcontractor program but does not track all subcontractors. It has an ACDBE program but the revenue reports are still in paper format. More tracking through the use of electronic data files would assist, not only in tracking firms, but also in knowing which firms are being utilized and which firms remain unutilized.

MNAA is already going a great job in outreach to MWDBE firms but it is important that the outreach be measurable to make sure that firms that are being outreached to are experiencing procurement opportunities.

MNAA should be sensitive to the perception that societal discrimination still exists in the MNAA marketplace and be prepared to address any issues of discrimination, whether in procurement or otherwise.



APPENDIX A  
EXPANDED LEGAL ANALYSIS

### Expanded Legal Analysis

Having provided an overview of the *de facto* genesis of diversity studies, the following underscores the legal benefit to such studies should a DBE/MBE/WBE program or initiative be challenged in a court of law. There are several important legal standards and considerations which arise when a constitutional challenge to a DBE/MBW/WBE program is initiated. Matters such as standing, the burden(s) of proof, the level of judicial scrutiny to be applied, and the types of evidence necessary for the court's evaluation, must all be addressed. Each of these concepts is addressed in turn.

#### 1. The Standing Requirement

Legal “standing” to bring suit is an absolute requirement for one seeking relief in any federal court of the United States or any state court called upon to decide a matter upon federal law. U.S. Const. Art. III, § 2, Cl 1; Lujan v. Defenders of Wildlife, 504 U.S. 555, 560 (1992). Though “some of its elements express merely prudential considerations that are part of judicial self-government, the core component of standing is an essential and unchanging part of the case-or-controversy requirement of Article III.” Lujan, 504 U.S. at 560.

[S]tanding contains three elements. First, the plaintiff must have suffered an injury in fact -- an invasion of a legally protected interest which is . . . concrete and particularized . . . [; s]econd, there must be a causal connection between the injury and the conduct complained of . . . [; and t]hird, it must be likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision [of the Court wherewith the matter is brought]. [Lujan, 504 U.S. at 560-61 (internal punctuation and citations omitted)]

Under the traditional standing analysis, in order to satisfy the “injury in fact” requirement, plaintiffs must establish a causal connection between the injury, the ordinance, and the likelihood that the injury will be redressed by a favorable decision. Moreover, the courts may not tolerate a lawsuit unless the plaintiff shows some “concrete and particularized” injury that is in fact imminent and which amounts to something more than “conjectural or hypothetical” injury. Price v. City of Charlotte, 93 F.3d 1241, 1247 (4th Cir. 1996) (citing Lujan).

There is a similar “injury in fact” requirement for litigants seeking associational standing, that is, standing to press a constitutional claim on behalf of a member(s) of an organization or other formal group, but there are additional requirements unique to such organizations:

To establish associational standing, AGC must show:

- (a) its members would otherwise have standing to sue in their own right;
- (b) the interests it seeks to protect are germane to the organization's purpose; and
- (c) neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit. [Associated General Contractors v. California D.O.T., 713 F.3d at 1194-95 (citations omitted)]<sup>1</sup>

The goal, of course, is to design and implement a DBE/MBE/WBE program in such a manner that no legitimate claims of “reverse discrimination” by majority contractors will result, and thus, no constitutional challenge will ensue. Absent achievement of such a program, standing issues will need to be addressed at the outset of any litigation.

#### Burdens of Production/Proof

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<sup>1</sup> In the federal judicial circuit covering MNAA, the “injury in fact” element for associational standing was analyzed in Associated General Contractors of America v. City of Columbus, 172 F.3d 411 (6th Cir. 1999).

As noted above, the Croson court struck down the City of Richmond’s minority set-aside program because the City failed to provide an adequate evidentiary showing of past and present discrimination as was its initial burden.<sup>2</sup> Since the Fourteenth Amendment only allows race-conscious programs that narrowly seek to remedy particularized discrimination, the Court held that state and local governments “must identify that discrimination . . . with some specificity before they may use race-conscious relief.” The Court’s rationale for judging the sufficiency of the City’s factual predicate for affirmative action legislation was whether there existed a “strong basis in evidence for its [government’s] conclusion that remedial action was necessary.”<sup>3</sup>

The initial burden of production on the state or local governmental entity is to demonstrate a “strong basis in evidence” that its race- and gender-conscious contract program is aimed at remedying identified past or present discrimination. See West Tennessee Chapter of Associated Builders v. City of Memphis, 302 F.Supp.2d 860, 863 (W.D. Tenn. 2004) (citing Croson; Adarand). Merely stating a “benign” or “remedial” purpose does not constitute a “strong basis in evidence” that the remedial plan is necessary, nor does it establish a prima facie case of discrimination. Thus, the local government must identify the discrimination it seeks to redress and produce particularized findings of discrimination.<sup>4</sup>

A governmental entity may, for example, establish an inference of discrimination by using empirical evidence that proves a significant statistical disparity between the number of qualified DBEs (or MBEs/WBEs), the number of DBE contractors actually awarded a contract by the governmental entity, or DBEs brought in as subcontractors by prime contractors to which a contract is awarded. The courts maintain that the quantum of evidence required for the governmental entity is to be determined on a case-by-case basis, and in the context and breadth of the MBE/WBE program it purports to advance.<sup>5</sup> If the governmental body is able to do this, then the burden shifts to the challenging party to rebut the showing.<sup>6</sup>

Once the governmental entity has shown acceptable proof of a compelling interest in remedying past discrimination and has illustrated that its plan is narrowly tailored to achieve this goal, the party challenging the affirmative action plan bears the ultimate burden of proving that the plan is unconstitutional. Sherbrooke Turf, Inc. v. Minnesota D.O.T., 345 F.3d 964, 971 (8th Cir. 2003) (“Sherbrooke and Gross Seed have the ultimate burden of establishing that the DBE program is not narrowly tailored.”); Geyer Signal, Inc. v. Minnesota D.O.T., 2014 WL 1309092, \*26 (D. Minn. 2014) (“The party challenging the constitutionality of the DBE program bears the burden of demonstrating that the government’s evidence did not support an inference of prior discrimination.”).<sup>7</sup>

#### Equal Protection and Levels of Judicial Scrutiny

The Fourteenth Amendment provides that “No state shall . . . deny to any person within its jurisdiction the equal protection of the laws”. U.S. Const. amend. XIV, § 1. Courts determine the appropriate standard of equal protection review by “[f]irst. . . [determining] whether a state or local government has developed the program, or whether Congress has authorized the program’s creation”, then by examining the protected classes embodied in the statute. S. J. Groves & Sons Company v. Fulton County et al., 920 F.2d 752, 767 (11th Cir. 1991).

As discussed herein, when a program or ordinance provides race-based protection, the court will apply what is referred to as “strict scrutiny” in evaluating its constitutional legitimacy. When gender-

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<sup>2</sup> Croson, 488 U.S. at 498-506.

<sup>3</sup> Croson, 488 U.S. at 500 (quoting Wygant v. Jackson Bd. of Educ., 476 U.S. 267, 277, 106 S.Ct. 1842, 1849 (1986)).

<sup>4</sup> Croson, 488 U.S. at 500-01.

<sup>5</sup> See Concrete Works, 36 F.3d 1513 (10th Cir. 1994).

<sup>6</sup> Id.

<sup>7</sup> Citing Adarand III, 228 F.3d at 1166.

based, the program or ordinance will be reviewed under the less-stringent “intermediate scrutiny standard.”

Because the SMWBE and DBE programs implemented and operated by MNAA make classifications based both on race/ethnicity and on gender, each is addressed in this analysis with respect to the applicable standard of review (e.g., strict or intermediate scrutiny).

#### Strict Scrutiny for Race-Based Classifications

“We have held that all racial classifications imposed by government must be analyzed by a reviewing court under strict scrutiny.” Grutter v. Bollinger, 539 U.S. 306, 326 (2003).<sup>8</sup> The Fourth Circuit previously put into sharp relief its view of the rationale for this level of judicial review:

Racial and ethnic distinctions of any sort are inherently suspect and thus call for the most exacting judicial examination. Wygant v. Jackson Board of Education, 476 U.S. 267, 273, 106 S.Ct. 1842 1846, 90 L.Ed.2d 260 (1986) (plurality opinion) (quoting Regents of the University of California v. Bakke, 438 U.S. 265, 291, 98 S.Ct. 2733 2748, 57 L.Ed.2d 750 (1978) (Powell, J.)). The rationale for this stringent standard of review is plain. Of all the criteria by which men and women can be judged, the most pernicious is that of race. The injustice of judging human beings by the color of their skin is so apparent that racial classifications cannot be rationalized by the casual invocation of benign remedial aims. City of Richmond v. J.A. Croson Co., 488 U.S. 469, 500, 109 S.Ct. 706, 724, 102 L.Ed.2d 854 (1989). While the inequities and indignities visited by past discrimination are undeniable, the use of race as a reparational device risks perpetuating the very race-consciousness such a remedy purports to overcome.... It thus remains our constitutional premise that race is an impermissible arbiter of human fortunes. [Podberesky v. Kirwin, 38 F.3d 147, 152 (4th Cir. 1994) (quoting Maryland Troopers Ass'n v. Evans, 993 F.2d 1072, 1076 (4th Cir.1993)]

“Under strict scrutiny, a racial classification must (1) serve a compelling state interest and (2) be narrowly tailored to achieve that interest.” Tuttle v. Arlington County School Board, 195 F.3d 698, 704 (4th Cir. 1999).

#### Strict or Intermediate Scrutiny for Gender-Based Classifications

Though still a live debate in some federal circuits, it appears settled in the Sixth Circuit that programs with gender-based classifications are evaluated for constitutionality under the same strict scrutiny standard applied to race-based classifications, and not a more relaxed level of scrutiny (such as intermediate scrutiny). See Brunet v. City of Columbus, 1 F.3d 390, 403-04 (6th Cir. 1993); Conlin v. Blanchard, 890 F.2d 811, 816 (6th Cir. 1989).

#### “Compelling Public Interest” Considerations

In order for a state or local governmental entity to promulgate and/or implement a constitutionally valid DBE program (or MBE/WBE program) which applies to awards of its contracts, it must show a compelling governmental interest:

Although imposing a substantial burden, strict scrutiny is not automatically “fatal in fact.” Adarand, 515 U.S. at 237, 115 S.Ct. 2097. After all, “[t]he unhappy persistence of both the practice and the lingering effects of racial discrimination against minority groups in this country is an unfortunate reality, and government is not disqualified from acting in response to it.” Id.; Alexander, 95 F.3d at 315. In so acting, a governmental entity must demonstrate it had a compelling interest in “remedying the effects of past or present racial discrimination.” Shaw v. Hunt, 517 U.S. 899, 909, 116 S.Ct. 1894, 135 L.Ed.2d 207 (1996).

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<sup>8</sup> See also Adarand II, 515 U.S. at 212 (same).

Thus, to justify a race-conscious measure, a state must “identify that discrimination, public or private, with some specificity,” Croson, 488 U.S. at 504, 109 S.Ct. 706, and must have a “ ‘strong basis in evidence for its conclusion that remedial action [is] necessary,’ ” id. at 500, 109 S.Ct. 706 (quoting Wygant v. Jackson Bd. of Educ., 476 U.S. 267, 277, 106 S.Ct. 1842, 90 L.Ed.2d 260 (1986) (plurality opinion)); see also Podberesky v. Kirwan, 38 F.3d 147, 153 (4th Cir.1994). As courts have noted, “there is no ‘precise mathematical formula to assess the quantum of evidence that rises to the Croson ‘strong basis in evidence’ benchmark.” Rothe Dev. Corp. v. Dep’t of Def., 545 F.3d 1023, 1049 (Fed.Cir.2008) (Rothe II) (quoting W.H. Scott Constr. Co. v. City of Jackson, 199 F.3d 206, 218 n. 11 (5th Cir.1999)). [H.B. Rowet, 615 F.3d at 241]

This compelling interest must be proven by particularized findings of discrimination. The strict scrutiny test ensures that the means used to address the compelling goal of remedying discrimination “fit” so closely that there is little likelihood that the motive for the racial classification is illegitimate racial prejudice or stereotype.<sup>9</sup>

The relevant case law establishes that the compelling state interests of remedying past discrimination and of avoiding discrimination in the context of governmental procurement programs are well-accepted and not controversial at this point. See W.H. Scott Const. Co. v. City of Jackson, 199 F.3d 206, 217 (5th Cir. 1999) (“Combating racial discrimination is a compelling government interest.”).<sup>10</sup>

Specific to federal DBE programs, several district and circuit courts have held that a state entity need not individually show a state-specific factual predicate to meet the “compelling public interest” requirement, but rather, can rely on the established federal government interest for transportation contracting. However, this does not relieve the state from demonstrating that the program is narrowly-tailored, which showing requires demonstrating that race-based measures are needed to remedy disparities within the state.

For example, the Ninth Circuit expressly held that “a state entity implementing a congressionally mandated program . . . [may rely] primarily on the federal government’s compelling interest in remedying the effects of past discrimination in the national construction market[,] but also cautioned that narrow tailoring requires evaluation of “the presence or absence of discrimination in the State’s transportation contracting industry.”<sup>11</sup> Similar results were found in the Seventh Circuit in Midwest Fence Corp. v. U.S. DOT, 840 F.3d 932, 948 (7<sup>th</sup> Cir. 2016) (“We and other circuits have held that a state agency is entitled to rely on the federal government’s compelling interest in remedying the effects of past discrimination to justify its own DBE plan for highway construction contracting.”).<sup>12</sup>

#### The Level of Governmental Participation/Involvement in Discrimination

The Supreme Court has uniformly held that general societal discrimination is insufficient to justify the use of race-based measures to satisfy a compelling governmental interest.<sup>13</sup> Rather, there must be some showing of prior discrimination by the governmental actor involved, either as an “active” or

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<sup>9</sup> Engineering Contractors Ass’n v. Metropolitan Dade County, 122 F.3d 895, 906 (11th Cir. 1997). See also, Adarand II, 515 U.S. at 235.

<sup>10</sup> See also Croson, 488 U.S. at 492 (“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 evils of private prejudice.”); Adarand II, 515 U.S. at 237 (“The unhappy persistence of both the practice and the lingering effects of racial discrimination against minority groups in this country is an unfortunate reality, and government is not disqualified from acting in response to it.”).

<sup>11</sup> Western States, 407 F.3d at 997-998.

<sup>12</sup> Citing Northern Contracting, Inc. v. Illinois DOT, 473 F.3d 715, 720 (7<sup>th</sup> Cir. 2007), and Sherbrooke Turf, Inc. v. Minnesota DOT, 345 F.3d 964, 970-71 (8<sup>th</sup> Cir. 2003).

<sup>13</sup> Adarand II, 515 U.S. at 227; Croson, 488 U.S. at 496-97.

“passive” participant.<sup>14</sup> See also Ashton v. City of Memphis, 49 F. Supp.2d 1051, 1057 (W. D. Tenn. 1999) (citing Croson).<sup>15</sup>

The upshot of this dual-faceted (active/passive) evaluation of the enacting governmental entity is that, even if the entity did not directly discriminate, it can take corrective action.<sup>16</sup> Subsequent lower court rulings have provided more guidance on passive participation by local governments. In Concrete Works of Colorado, Inc. v. City of Denver, 36 F.3d 1513 (10th Cir. 1994), the Tenth Circuit held that it was sufficient for the local government to demonstrate that it engaged in passive participation in discrimination rather than showing that it actively participated in the discrimination:

Neither Croson nor its progeny clearly state whether private discrimination that is in no way funded with public tax dollars can, by itself, provide the requisite strong basis in evidence necessary to justify a municipality's affirmative action program. Although we do not read Croson as requiring the municipality to identify an exact linkage between its award of public contracts and private discrimination, such evidence would at least enhance the municipality's factual predicate for a race/gender-conscious program. [Concrete Works, 36 F.3d at 1529]

Thus, the desire for a government entity to prevent the infusion of public funds into a discriminatory industry is enough to satisfy the requirement.

The next question, however, is whether a public entity has the requisite factual support for its program in order to satisfy the particularized showing of discrimination required by Croson. This factual support can be developed from anecdotal and statistical evidence, as discussed hereafter.

#### Types of Evidence Available to Meet the Applicable Standard

The types of evidence routinely presented to show the existence of a compelling interest include statistical and anecdotal evidence.<sup>17</sup> Where gross statistical disparities exist, they alone may constitute prima facie proof of a pattern or practice of discrimination. Anecdotal evidence, such as testimony from minority contractors, is most useful as a *supplement* to strong statistical evidence, as it cannot carry the burden for the entity by itself.

The majority decision in Croson implicitly endorsed the inclusion of personal accounts of discrimination, but Croson and subsequent decisions also make clear that selective anecdotal evidence

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<sup>14</sup> Croson, 488 U.S. at 498. In the context of federal transportation DBE programs, “Congress has spent decades compiling evidence of racial discrimination in government highway contracting, of barriers to the formation of minority owned construction businesses, and barriers to entry.” Western States, 407 F.3d at 992-993.

<sup>15</sup> As the court in Tennessee Asphalt clarified, “[g]overnmental entities are not restricted to eradicating the effects only of their own discriminatory acts.” 942 F.2d at 974. Thus, even if the governmental unit did not directly discriminate, it can take corrective action. Engineering Contractors, 122 F.3d at 907 (“[I]f the County could show that it had essentially become a ‘passive participant’ in a system of racial exclusion practiced by elements of the local construction industry,” the Supreme Court has made it “clear that the [County] could take affirmative steps to dismantle such a system.”).

<sup>16</sup> Engineering Contractors, 122 F.3d at 907 (“[I]f the County could show that it had essentially become a ‘passive participant’ in a system of racial exclusion practiced by elements of the local construction industry, the Supreme Court has made it clear that the [County] could take affirmative steps to dismantle such a system.”); Croson, 488 U.S. at 492 (“Thus, if the city could show that it had essentially become a ‘passive participant’ in a system of racial exclusion practiced by elements of the local construction industry, we think it clear that the city could take affirmative steps to dismantle such a system.”).

<sup>17</sup> Croson, 488 U.S. at 501.

about DBE/MBE/WBE experiences alone would not provide an ample basis in evidence to demonstrate public or private discrimination in a municipality's construction industry.<sup>18</sup>

In sum, personal accounts of actual discrimination or the effects of discriminatory practices are admissible and effective, and anecdotal evidence of a governmental entity's institutional practices that provoke discriminatory market conditions is particularly probative. In order to carry the day, however, such evidence must be supplemented with strong statistical proof:

A state need not conclusively prove the existence of past or present racial discrimination to establish a strong basis in evidence for concluding that remedial action is necessary. See, e.g., Concrete Works, 321 F.3d at 958. Instead, a state may meet its burden by relying on "a significant statistical disparity" between the availability of qualified, willing, and able minority subcontractors and the utilization of such subcontractors by the governmental entity or its prime contractors. Croson, 488 U.S. at 509, 109 S.Ct. 706 (plurality opinion). We further require that such evidence be "corroborated by significant anecdotal evidence of racial discrimination." Md. Troopers Ass'n, Inc. v. Evans, 993 F.2d 1072, 1077 (4th Cir.1993). [H.B. Rowe, 615 F.3d 241]

Accordingly, a combination of statistical disparities in the utilization of DBEs/MBEs/WBEs and particularized anecdotal accounts of discrimination experienced by them (or others) are required to satisfy the factual predicate. See Middleton et. al. v. City of Flint, 92 F.3d 396, 405 (6th Cir. 1996) ("Anecdotal evidence is most useful as a supplement to strong statistical evidence[.]").

Of note, several courts have rejected assertions by plaintiffs attacking programs that anecdotal evidence must be verified to be considered as part of a governmental entity's evidentiary proffer.<sup>19</sup>

#### Statistical Data Generally

The Court in Croson explained that an inference of discrimination may be made with empirical evidence that demonstrates "a significant statistical disparity between the number of qualified minority contractors . . . and the number of such contractors actually engaged by the locality or the locality's prime contractors."<sup>20</sup> A predicate to governmental action is a demonstration that gross statistical disparities exist between the proportion of DBEs awarded government contracts and the proportion of DBEs in the local industry "willing and able to do the work," in order to justify its use of race-conscious contract measures. Ensley Branch N.A.A.C.P. v. Seibels, 31 F.3d 1548, 1565 (11th Cir. 1994).

In order to adequately assess statistical evidence, there must be information identifying the basic qualifications of minority (or women) contractors "willing and able to do the job" and the Court must

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<sup>18</sup> Croson, 488 U.S. at 480 (noting as a weakness in the City's case that the Richmond City Council heard "no direct evidence of race-conscious discrimination on the part of the city in letting contracts or any evidence that the City's prime contractors had discriminated against minority-owned subcontractors"); See also Engineering Contractors Ass'n, 122 F. 3d at 925 ("[W]e have found that kind of evidence [anecdotal] to be helpful in the past, but only when it was combined with and reinforced by sufficiently probative statistical evidence.").

<sup>19</sup> Associated General Contractors v. California D.O.T., 713 F.23d at 1196-1197 ("AGC contends that the anecdotal evidence has little or no probative value in identifying discrimination because it is not verified. AGC cites to no controlling authority for a verification requirement. Both the Fourth and Tenth Circuits have rejected the need to verify anecdotal evidence."), citing H.B. Rowe, 6115 F.3d at 249; Concrete Works, 321 F.3d at 989. See also Kossman Contracting Co. v. City of Houston, Case No. H-14-1203, at 58 (S.D. Texas 2016) ("Plaintiff criticizes the anecdotal evidence with which NERA supplemented its statistical analysis as not having been verified and investigated. Anecdotes are not the sole or even primary evidence of discrimination in this case. . . . One reason anecdotal evidence is valuable supplemental evidence is that it reaches what statistics cannot: a witness' narrative of an incident told from the witness' perspective and including the witness' perceptions.") (quotations and citations omitted).

<sup>20</sup> Croson, 488 U.S. at 509.

determine, based upon these qualifications, the relevant statistical pool with which to make the appropriate statistical comparisons.<sup>21</sup> Although subsequent lower court decisions have provided considerable guidelines for statistical analyses sufficient for satisfying the Croson factual predicate, there are multiple methods that the courts have accepted for conducting statistical analyses. The most prevalent of these are outlined hereafter.

### Availability

The attempted methods of calculating DBE/MBE/WBE availability have varied from case to case. In Contractors Association of Eastern Pennsylvania v. City of Philadelphia, 6 F.3d 990 (3rd Cir. 1993), the Third Circuit stated that available and qualified minority-owned businesses comprise the “relevant statistical pool” for purposes of determining availability. The Court permitted availability to be based on the metropolitan statistical area (MSA) and local list of the Office of Minority Opportunity for non-MBE/WBEs, which itself was based on census data.

In Associated General Contractors v. City of Columbus,<sup>22</sup> the City’s consultants collected data on the number of MBE/WBE firms in the Columbus MSA in order to calculate the percentage of available MBE/WBE firms. Three sources were considered to determine the number of MBE/WBEs “ready, willing and able” to perform construction work for the city. However, the Court found that none of the measures of availability purported to measure the number of MBE/WBEs who were qualified and willing to bid as a prime contractor on City construction projects. Neither the City Auditor Vendor Payment History file, nor the Subcontractor Participation Reports, nor the Contract Document Database of the City were attentive to which firms were able to be responsible or provide either a bid bond or performance bond. The Court wrote, “[t]here is no basis in the evidence for an inference that qualified MBE/WBE firms exist in the same proportions as they do in relation to all construction firms in the market.”<sup>23</sup>

In H.B. Rowe, availability was calculated using a vendor list that included: “(1) subcontractors approved by the Department to perform subcontract work on state-funded projects, (2) subcontractors that performed such work during the study period, and (3) contractors qualified to perform prime construction work on state-funded contracts.”<sup>24</sup>

Similarly, in Associated General Contractors v. California D.O.T., the court noted with approval that in the course of conducting its disparity study for Caltrans, “[t]he research firm gathered extensive data to calculate disadvantaged business availability in the California transportation contracting industry[,] and used “public records, interviews and assessments as to whether a firm could be considered available for Caltrans contracts[.]”<sup>25</sup>

A common question in collecting and applying availability data is whether prime contractor and subcontractor data needs to be evaluated separately. Though the Sixth Circuit has not spoken on this particular question, the trend is to accept combined data.

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<sup>21</sup> See e.g., Associated General Contractors v. California D.O.T., 713 F.2d at 1197-1199.

<sup>22</sup> Associated General Contractors of America v. City of Columbus, 936 F. Supp. 1363 (1996), reversed on related grounds, 172 F.3d 411 (6th Cir. 1999).

<sup>23</sup> Associated General Contractors, 936 F. Supp. at 1389. The Court also questioned why the City did not simply use the records it already maintains “of all firms which have submitted bids on prime contracts” since it represents “a ready source of information regarding the identity of the firms which are qualified to provide contracting services as prime contractors.” Id.

<sup>24</sup> 615 F.3d at 244.

<sup>25</sup> 713 F.3d at 1191-92. Cf. Contractors Association of South Florida v. Metropolitan Dade County, 122 F.3d 895 (11th Cir. 1997) (when special qualifications are necessary to undertake a particular task, the relevant statistical pool must include only those minority-owned firms qualified to provide the requested services.)



NCI's argument is that IDOT essentially abused its discretion under this regulation by failing to separate prime contractor availability from subcontractor availability. However, NCI has not identified any aspect of the regulations that requires such separation. Indeed, as the district court observed, the regulations require the local goal to be focused on overall DBE participation in the recipient's DOT-assisted contracts. See 49 C.F.R. § 26.45(a)(1). It would make little sense to separate prime contractor and subcontractor availability as suggested by NCI when DBEs will also compete for prime contracts and any success will be reflected in the recipient's calculation of success in meeting the overall goal. [Northern Contracting, 473 F.3d at 723]<sup>26</sup>

Also, several courts have accepted the use of a "custom census" methodology for calculating availability. For example, in Northern Contracting, after identifying the relevant geographic market and product market (transportation construction) the analyst "surveyed Dun & Bradstreet's *Marketplace*, which is a comprehensive database of American businesses that identifies which businesses are minority or women-owned. Wainwright supplemented this survey with IDOT's list of DBEs in Illinois."<sup>27</sup> In Kossman, the consulting analyst "relied on data acquired from Dun & Bradstreet's Hoovers subsidiary on the total number of businesses in the defined market area. . . . Because the Dun & Bradstreet data did not adequately identify all MWBEs, NERA collected information on MWBEs in Texas and surrounding states through lists from public and private entities, as well as prior NERA studies, and culled records for MWBEs within the [City's] defined market area."<sup>28</sup>

### Utilization

Utilization is a natural corollary of availability, in terms of statistical calculation. Different courts have applied utilization rates to different base measures, including percentage-based analyses regarding contract awards and dollars paid.

For example, in H.B. Rowe, the state demonstrated statistical disparity using subcontracting dollars won by minority subcontractors.<sup>29</sup> In Associated General Contractors v. California D.O.T., the State's disparity study consultants calculated the percentage of contracting dollars that were paid to DBE firms.<sup>30</sup> This is referred to as the rate of utilization. From this point, one could determine if a disparity exists and, if so, to what extent.

In Cone Corp. v. Hillsborough County, 908 F.3d 908 (11th Cir. 1990), the following utilization statistics were developed and presented to justify an MBE program:

The County documented the disparity between the percentage of MBE contractors in the area and the percentage of contracts awarded to those MBE contractors. Hillsborough County determined that the percentage of County construction dollars going to MBE contractors compared to the total percentage of County construction dollars spent. . . .

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<sup>26</sup> See Associated General Contractors v. California D.O.T., 713 F.2d at 1199 (citing Northern Contracting); Kossman, at 58 ("Separately considering prime contractors and subcontractors is not only unnecessary but may be misleading. The anecdotal evidence indicates that construction firms had served, on different contracts, as both."). See also H.B. Rowe, 615 F.3d at 245 (court accepted combined data based on experts' explanation that prime contractors are also qualified to do subcontracting work, and often do).

<sup>27</sup> 473 F.3d at 718.

<sup>28</sup> Id. at 5. See also Midwest Fence, 840 F.3d at 950 (discussing and approving custom census method).

<sup>29</sup> 615 F.3d at 241, 250-51 ("[A] state may meet its burden by relying on 'a significant statistical disparity' between the availability of qualified, willing, and able minority subcontractors and the utilization of such subcontractors by the governmental entity or its prime contractors."), citing Croson, 488 U.S. at 509, 109 S.Ct. 706.

<sup>30</sup> 713 F.2d at 1191-1193. In Kossman v. City of Houston, NERA used both "award amounts" and "paid amounts" to determine utilization. Id. at 3, n. 10. The court, in approving the statistical proffer, looked only at the award amounts to "simplify matters." Id.

The data extracted from the studies indicates that while ten percent of the businesses and twelve percent of the contractors in the County were minorities, only 7.89% of the County purchase orders, 1.22% of the County purchase dollars, 6.3% of the awarded bids, and 6.5% of the awarded dollars went to minorities. The statistical disparities between the total percentage of minorities involved in construction and the work going to minorities, therefore, varied from approximately four to ten percent, with a glaring 10.78% disparity between the percentage of minority contractors in the County and the percentage of County construction dollars awarded to minorities. Such a disparity clearly constitutes a prima facie case of discrimination indicating that the racial classification in the County plan were necessary. [Id. at 915-16]

The Sixth Circuit signaled in Drabik, however, that statistical proof of under-utilization would be insufficient in and of itself to supply the justification for the utilization of a non-race-neutral measure in public contracting practices.<sup>31</sup> The Drabik court, did not read Croson as permitting remedial action of a non-race-neutral type simply because of statistical findings of underutilization of those minority companies that were in the ready, willing, and able to perform a public contracting need category, but rather required that “governments . . . identify discrimination with some specificity before they may use race-conscious relief; explicit findings of a constitutional or statutory violation must be made.”<sup>32</sup>

### Disparity Indices

To demonstrate the under-utilization of DBEs/MBEs/WBEs in a particular area, parties can employ a statistical device known as the “disparity index.” The use of such an index was explained, and cited approvingly, in H.B. Rowe, 615 F.3d at 243-44.

In H.B. Rowe, after noting the increasing use of disparity indices, the court explained that the State (through a consulting firm) calculated a disparity index for each relevant racial or gender group covered by the DBE program and, further, conducted a standard deviation analysis on each of those indices using t-tests.<sup>33</sup> The resulting calculations “demonstrated marked underutilization of African American and Native American subcontractors,” according to the court.<sup>34</sup>

The utility of disparity indices or similar measures to examine the utilization of minorities or women in a particular industry has been recognized by a number of federal circuit courts.<sup>35</sup> Specifically, courts have used these DBE/MBE/WBE disparity indices to apply the “strong basis in evidence” standard in Croson. As noted, the disparity index in H.B. Rowe was 0.46 for African Americans, and was 0.48 for Native Americans.<sup>36</sup> Based on a disparity index of 0.22, the Ninth Circuit upheld the denial of a preliminary injunction to a challenger of the City of San Francisco’s MBE plan based upon an equal protection claim.<sup>37</sup> Similarly, the Third Circuit held that a disparity of 0.04 was “probative of discrimination in City contracting in the Philadelphia construction industry.”<sup>38</sup>

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<sup>31</sup> 214 F.3d at 735.

<sup>32</sup> Drabik, 214 F.3d at 735.

<sup>33</sup> Id. at 244. The disparity index is calculated by dividing the percentage of available MBE/WBE participation (amount of contract dollars) by the percentage of DBEs/MBEs/WBEs in the relevant population of local firms. A disparity index of one (1.0) demonstrates full DBE/MBE/WBE participation, whereas the closer the index is to zero, the greater the under-utilization. Some courts multiply the disparity index by 100, thereby creating a scale between 0 and 100, with 100 representing full utilization. Engineering Contractors, 122 F.3d at 914.

<sup>34</sup> Id.

<sup>35</sup> See Associated General Contractors v. California D.O.T., 713 F.2d at 1191, citing H.B. Rowe; Concrete Works, 36 F.3d at 1523 n. 10 (10th Cir.1994) (employing disparity index); Contractors Ass’n, 6 F.3d at 1005 (3d Cir.1993) (employing disparity index).

<sup>36</sup> Id. at 245.

<sup>37</sup> AGC v. Coal. for Economic Equity, 950 F.2d 1401, 1414 (9th Cir. 1991).

<sup>38</sup> Contractors Ass’n, 6 F.3d at 1005.

### Standard Deviations

The number calculated via the disparity index (established above) is then tested for its validity through the application of a standard deviation analysis. Standard deviation analysis measures the probability that a result is a random deviation from the predicted result (the more standard deviations, the lower the probability the result is a random one). Social scientists consider a finding of two standard deviations significant, meaning that there is about one chance in 20 that the explanation for the deviation could be random, so the deviation must be accounted for by some factor.

Standard deviations were applied by the State of North Carolina in the statistical analysis utilized to defend its MWBE program in H.B. Rowe.<sup>39</sup> The Fourth Circuit described the significance of the findings as follows:

For African Americans the t-value of 3.99 fell outside of two standard deviations from the mean and, therefore, was statistically significant at a 95 percent confidence level. In other words, there was at least a 95 percent probability that prime contractors' underutilization of African American subcontractors was not the result of mere chance. For Native American subcontractors, the t-value of 1.41 was significant at a confidence level of approximately 85 percent. [Id. at 245]

Similarly, the Eleventh Circuit has directed that "where the difference between the expected value and the observed number is greater than two or three standard deviations, then the hypothesis that [employees] were hired without regard to race would be suspect." Peightal v. Metropolitan Dade County, 26 F.3d 1545, 1556 (11th Cir. 1994) (quoting Castaneda v. Partida, 430 U.S. 482, 497 n.17, 97 S.Ct. 1272, 1281 n.17, (1977)).

### Regression Analyses

The statistical significance of certain quantitative analyses was further evaluated in H.B. Rowe, when the court indicated that the appropriate test should resemble the one employed in Engineering Contractors, wherein two standard deviations or any disparity ratio that was higher than .80 (which is insignificant), should be used.<sup>40</sup>

In evaluating the disparity evidence offered, and the regression analysis conducted by the State, the court favorably noted:

To corroborate the disparity data, MGT conducted a regression analysis studying the influence of certain company and business characteristics - with a particular focus on owner race and gender - on a firm's gross revenues. MGT obtained the data from a telephone survey of firms that conducted or attempted to conduct business with the Department. The survey pool consisted of a random sample of 647 such firms; of this group, 627 participated in the survey.

MGT used the firms' gross revenues as the dependent variable in the regression analysis to test the effect of other variables, including company age and number of full-time employees, and the owners' years of experience, level of education, race, ethnicity, and gender. The analysis revealed that minority and women ownership universally had a negative effect on revenue. African American ownership of a firm had the largest negative effect on that firm's gross revenue of all the independent variables included in the regression model. These findings led MGT to conclude that "for African Americans, in particular, the disparity in firm revenue was not due to capacity-related or managerial characteristics alone." [Id. at 245-46; 250]

### Requirement for a Narrowly-Tailored Remedy

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<sup>39</sup> 615 F.3d at 244-45.

<sup>40</sup> 615 F.3d at 244-46. See also, infra, analysis using standard deviations.

Under the Croson framework, any race-conscious plan must be narrowly tailored to ameliorate the effects of past discrimination. See Michigan Road Builders Ass'n v. Milliken, 834 F.2d 583, 589-90 (6th Cir. 1987). “Generally, while ‘goals’ are permissible, unyielding preferential ‘quotas’ will normally doom an affirmative action plan.” Viridi v. DeKalb County School District, 135 Fed. Appx. 262 (2005).<sup>41</sup>

The Fourth Circuit addressed the parameters of this requirement in Tuttle v. Arlington County:

When reviewing whether a state racial classification is narrowly tailored, we consider factors such as: (1) the efficacy of alternative race-neutral policies, (2) the planned duration of the policy, (3) the relationship between the numerical goal and the percentage of minority group members in the relevant population or work force, (4) the flexibility of the policy, including the provision of waivers if the goal cannot be met, and (5) the burden of the policy on innocent third parties. [195 F.3d at 706 (citation omitted)]

In Croson, the Court considered similar factors, including 1) whether the city has first considered race-neutral measures, but found them to be ineffective; 2) the basis offered for the goals selected; 3) whether the program provides for waivers; and 4) whether the program applies only to MBEs who operate in the geographic jurisdiction covered by the program.<sup>42</sup>

More refined guideposts are provided in several post-Croson cases wrestling with efforts to meet the “narrowly tailored” prong – which we simply list for ease of reference:

- Relief is limited to minority groups for which there is identified discrimination;
- Remedies are limited to redressing the discrimination within the boundaries of the enacting jurisdiction;<sup>43</sup>
- The goals of the programs should be flexible and provide waiver provisions;
- Serious, good faith race and/or gender neutral measures should be considered; and
- The program should include provisions or mechanisms for periodic review and sunset.<sup>44</sup>

It is noteworthy that the Eighth Circuit in Sherbrooke Turf concluded that the DOT regulations governing DBE programs “on their face, satisfy the Supreme Court’s narrow tailoring requirement.”<sup>45</sup>

As discussed in the Section 1 of this analysis, the Sixth Circuit in Associated General Contractors v. Drabik affirmed that Ohio’s MBEA statute was not narrowly tailored to remedy past discrimination because: (1) the MBEA suffered from under inclusiveness and over inclusiveness, (lumping together racial and ethnic groups without identified discrimination); (2) the MBEA lacked a sunset date; and (3) the state

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<sup>41</sup> See also Sherbrooke Turf, 345 F.3d at 972 (citing Croson, 488 U.S. at 496).

<sup>42</sup> 488 U.S. at 507-08. See also Sherbrooke Turf, 345 F.3d at 971-72 (“Narrow tailoring does not require exhaustion of every conceivable race-neutral alternative, but it does require serious, good faith consideration of workable race-neutral alternatives.”).

<sup>43</sup> This consideration is especially important in the DBE context because, as was noted above, courts have held that states can rely on the federal DBE program justification for the “compelling public interest” requirement, but that narrow-tailoring requires demonstration of discrimination specific to the state itself. See supra. Thus, the remedy must likewise address the state-specific disparity.

<sup>44</sup> Sherbrooke Turf, 345 F.3d at 971 (“In determining whether a race-conscious remedy is narrowly tailored, we look to factors such as the efficacy of alternative remedies, the flexibility and duration of the race-conscious remedy, the relationship of the numerical goals to the relevant labor market, and the impact of the remedy on third parties.”).

<sup>45</sup> Id. at 971-72.

failed to provide specific evidence that Ohio had considered race-neutral alternatives before adopting the plan to increase minority participation.<sup>46</sup>

Again, Drabik underscores that MWBE Programs must be designed so that the benefits of the programs are targeted specifically toward those firms that faced discrimination in the local marketplace; to withstand a challenge, relief must extend only to those minority groups for which there is evidence of discrimination.<sup>47</sup>

Inherent in the above discussion is the notion that MWBE Programs and remedies must maintain flexibility with regard to local conditions in the public and private sectors. Courts have suggested project-by-project goal setting and waiver provisions as means of ensuring fairness to all vendors.

Also, “review” or “sunset” provisions are strongly suggested components for an MWBE program to guarantee that remedies do not out-live their intended remedial purpose. As an example, the Sixth Circuit specifically cited the lack of a “sunset” provision in criticizing the MBEA instituted by the State of Ohio.<sup>48</sup>

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<sup>46</sup> 214 F.3d 739.

<sup>47</sup> 214 F.3d at 735 (discussing the need for a "fit" between past/present harm and the proffered remedy).

<sup>48</sup> Drabik, 214 F.3d at 739.

APPENDIX B  
DATA ASSESSMENT REPORT

**METRO NASHVILLE AIRPORT AUTHORITY**  
**2019 DISPARITY STUDY**  
**DATA ASSESSMENT REPORT**

Griffin & Strong, P.C. (“GSPC”) conducted a data assessment meeting on December 12, 2018 regarding the Metro Nashville Airport Authority (“MNA”) 2019 Disparity Study. This report summarizes that meeting and sets forth action items and preliminary questions to be answered. It is necessary to issue a data assessment report prior to completing the data collection plan in order to confirm that GSPC has the correct understanding of how and where data is kept by MNA.

**I. Scope Statement**

The purpose of this disparity study (“Study”) is to conduct a disparity study to provide MNA with continued support for its Disadvantaged Business Enterprise (“DBE”), Airport Concessions Disadvantaged Business Enterprise (“ACDBE”) and Small/Minority/Woman-Owned Business Enterprise (“SMWBE”) programs.

The Study will collect and analyze relevant data on “ready, willing and able” vendors in the areas of:

- A. Construction (federal)
- B. Construction (non-federal)
- C. Professional Services
- D. Goods & Services
- E. Concessions

The dollars spent with these same types of businesses (whether as prime contractors or subcontractors) will be collected and analyzed.

The study period for the disparity study has been determined as a six (6) year study period from January 1, 2013 through December 31, 2018 (“Study Period”). Note that this is different from the fiscal year but is consistent with previous studies. Note: This was changed in the middle of the Study to FY2014-2018 (July 1, 2013-June 30, 2018)

**II. Data Assessment Meeting**

GSPC conducted a data assessment meeting to ascertain the location, types, and constraints on the data needed for the disparity study, as well as to obtain a basic understanding of the MNA’s purchasing practices. Davita Taylor will be the point person for data with Donzaleigh Powell as the backup.

### **III. Preliminary Purchasing Practices**

#### **A. Purchasing Levels**

1. There are three levels of contracting:

\$0-\$10,000 discretionary  
\$10,000-\$50,000 informal with 3 quotes  
Over \$50,000 for formal process.

2. P-Cards spending limit average is \$2,500 per person per month. These are in a Suntrust database but are excluded from the Study.

#### **B. Prequalification**

There is no prequalification at the airport except on individual contracts.

#### **C. DBE/SMWBE/ACDBE Programs**

MNAA has a DBE, SMWBE, and ACDBE Program. Participation is tracked in B2G and AX Dynamics. Rarely, if ever is there a small business goal set on a project along with other goals.

### **IV. Data Assessment**

#### **A. General Data**

In general, Procurement tries to be the repository of all data, but it is possible that some contracts are done by departments so we will need to check with them.

#### **B. Analysis**

##### **1. Utilization**

GSPC will use payment data to conduct utilization analysis. It will match the Vendor ID# in the Vendor file to the Vendor ID# in the payment file to pick up utilization prime dollars.

It is important to note that A&E work could be listed under Construction in the payments file because the project was construction. But when we match the vendor file to the payment file we should be able to correct this to identify the firm as an A&E firm.

##### **2. Availability**

GSPC will pull the various certifications lists throughout Nashville and the State of Tennessee. Only certified firms will be used for MWBE availability. GSPC will also provide a separate list of firms that are identified as MWBEs but that are not certified.



### **3. Goal setting**

In addition to the Triennial goal that is set using NAICS codes, MNAA also sets SMWBE contract goals set based on local funding.

#### **C. Specific Data files**

It was determined in this meeting that GSPC will need from Metro Nashville Airport Authority:

- Solicitations
- Vendor File (current)
- Awards (during Study Period)
- Purchase Orders (during the Study Period)
- Payments (during Study Period)
- Contracts (during Study Period)
- Bidders (during the Study Period)
- Subcontractor data (during the Study Period)
- Certified SMWBEs (current)
- Concessions/ACDBEs

#### **1. Solicitations**

There is no master solicitations list to match up to.

#### **2. Vendor File**

Vendors are considered those firms that got paid, so that not all bidders are on the vendor list. Every vendor has a Vendor ID#. There are also firms that have expressed interest on that list. There is only one vendor list and it is inward facing. There are about 2500 on the electronic vendor list and 125 in paper applications that haven't been entered. The vendor file includes contacts and NAICS codes. These NAICS codes are used for the goal setting and there is also a description. The system only allows them to have one NAICS code.

#### **3. Awards**

There are no NAICS codes in the awards. B2G tracks all awards that have participation on them. B2G has been in place for 11 years.

#### **4. Purchase Orders (P.O.)**

Since 2013, Purchase Orders may be in PDF. B2G tracks purchase orders only on contracts with participation. Large projects do not have P.O.'s Don't need P.O.s

## **5. Payments**

Payments will likely be used for utilization. The payment file gives ethnicity and gender. Every payee has a Vendor I.D. Payments have General Ledger codes that include the information needed to determine what the payments were for. There are no NAICS codes in payments but payments track contract numbers and P.O. numbers. Uses the leading number.

## **6. Contracts**

Contracts are only in database form for the last 18 months. Just prior to that, contracts will be in PDF form with about 60% having a coversheet with information. 2013 contracts are hard copies in boxes. If departments did a purchase without the Procurement Department, we might have to go to the department for those.

Change orders are in PDF format and have project numbers and the change orders and cancellations will be in separate PDFs with the name project number.

Project Numbers are not the same as P.O. numbers. Finance assigns a contract number. Contract numbers are tracked in B2G for contracts with participation.

Very few design build contracts. Only 3 were identified. We can monitor those manually to see how they come out in the data. Need to be able to connect the contracts. These are vendors who got paid

## **7. Bidders**

MNAA keeps bid tabulations: Master sheet 2016, 2017, 2018.

- a) Last 18 months on a spreadsheet
- b) 3 years in PDF unlikely
- c) 2013 is in boxes In boxes 13, 14, 15 less than 100 to 200 per year

Procurement and D&E would have. They normally forward but not always.

Bids themselves may be in Aerobid but that is only for electronic bidding and not all bidding is electronic. For awards over \$50k, about 60% are in Aerobid. It should be noted that any five (5) year contracts should be coming up soon for rebid.

## **8. Subcontractors**

The last 18 months there is an SMWBE subcontractor database. Before that, subcontractors can be obtained on the contractor bid form or bidder proposal form. These are PDF's and hard-copies. If a sub is doing at least 5% on a contract for construction, they will be listed. 2016, 2017, 2018. 1702B own individual folder in file cabinet.

## **9. SMWBES**

B2G tracks awards that have SMWBE participation. This is reliable tracking of SMWBES. Ethnicities are also contained in B2G. Women are all Caucasian Women. B2G also tracks contract numbers.

Tennessee Unified Certification (TNUCP) list has a breakdown by ethnicity, gender, and small businesses for DBEs. Ask for the list they send on Fridays which has the ethnicity and gender breakdowns.

### **10.ACDBE/Concessions**

There is a potential database of concessionaires. We will have to pull main agreements. Can be pulled for the last 6 years, but likely to be hard copy. Josh Powell is the person to contact. He has generated reports and may have a database. No non-ACDBE tracking is done by MNAA.

MNAA has a database of revenues on concessionaires. ACDBE data is all in B2G

There are about 400 letters of interest for 89 spots. That is just the last 60 days. Historical letters of interest are not kept.

Note that MNAA's concessions aspirations are about 90% local and 40% ACDBE.

3 Master Concessionaires and some direct concessionaires. 20 or so agreements in those folders are the revenue reports.

APPENDIX C  
DATA COLLECTION PLAN

**METRO NASHVILLE  
AIRPORT AUTHORITY  
DATA COLLECTION PLAN**

The data collection plan utilizes the information gathered in the Data Assessment Report, and sets forth a preliminary plan for actual retrieval of the data.

- A. Collect Electronic Data\* Note that we are aware that some of the electronic data being requested in database format may only go back and about 18 months. Therefore we also need PDFs that are before that.

Assigned	Task	Start	Finish	Completed
Mcj/rh	Submit request for electronic data, including the following to <b>Davita Taylor</b> 1. Vendor file (Current) 2. Awards (1/1/2013-12/31/2018) 3. Purchase Orders (1/1/2013-12/31/2018) 4. Payments (1/1/2013-12/31/2018) 5. Contracts (1/1/2013-12/31/2018) 6. Bidders in Aerobid (1/1/2013-12/31/2018) 7. Bid Tabulations (1/1/2013-12/31/2018) 8. Subcontractors from B2B (1/1/2013-12/31/2018) 9. Subcontractor Bid forms (1/1/2013-12/31/2018) 10. Concessionaires database (Current) 11. Concessionaires revenue database (1/1/2013-12/31/2018) 12. Work code keys and descriptions for all Databases	1/14/2019	3/11/2019	
	ALL ELECTRONIC DATA COLLECTED		3/11/2019	

- B. Collect Manual Data\* Because it is unclear exactly how much electronic data can be collected. GSPC will wait until the electronic data is collected before extracting manual data.

Assigned	Task	Start	Finish	Completed
Mcj/rh	Submit request for electronic data, including the following to <b>Davita Taylor</b> 1. Vendor paper applications (about 125) (Current) 2. 2013 Contracts 3. 2013 Bidders 4. Subcontractor Bid forms (1/1/2013-12/31/2018) 5. Concessionaire main agreements (Josh Powell) 6. Letters of Interest	3/12/2019	4/12/2019	

	ALL MANUAL DATA COLLECTED	4/12/2019		
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C. Survey of Business Owners

Assigned	Task	Start	Finish	Completed
Sterj/price	Prepare questions for Survey of Business Owners	2/1/2019	2/15/2019	
Mcj	Obtain City's current data files	1/15/2019	4/26/2019	
Rh	Clean data files	2/1/2019	4/26/2019	
Creative Research Solutions, LLC	Send questions and datafiles to Creative Research Solutions, LLC to conduct the telephone survey	2/15/2019	4/26/2019	
	ALL SURVEY TABLES RECEIVED BY GSPC		7/12/2019	

D. Purchasing Practices, Policies & Procedures Interviews

Assigned	Task	Start	Finish	Completed
JVE	Contact Purchasing buyers and departments to make appoints to be interviewed	1/21/2019	2/8/2019	
JVE	Conduct policy interviews with the various departments that conduct procurements	1/21/2019	2/15/2019	
JVE	Complete draft of Policy Chapter	2/15/2019	2/28/2019	
	PURCHASING PRACTICES INTERVIEWS COMPLETED		3/1/2019	

E. Anecdotal Evidence

Assigned	Task	Start	Finish	Completed
Mcj/rh	Stakeholder List	2/18/2019	2/28/2019	
Mcj/rh	Take random sample of Relevant Market Vendors	3/1/2019	3/14/2019	
Communications Strategies	Set up in-person interviews	3/15/2019	7/15/2019	
Communications Strategies	Conduct interviews using a script but receiving information not on script as well (interviews are recorded) and write up summary of interviews, particularly documenting any accounts of marketplace discrimination	4/15/2019	7/15/2019	
Rks/Sterj/HY	Conduct public hearings & focus group	TBD	July, 2019	
	ANECDOTAL EVIDENCE COLLECTED		8/9/2019	

F. Private Sector Analysis

Assigned	Task	Start	Finish	Completed
Price	Collect publicly available data e.g. census and economic data as useful	7/15/2019	9/13/2019	
	PRIVATE SECTOR DATA COLLECTED		9/13/2019	

G. Miscellaneous Reports & Data

Assigned	Task	Start	Finish	Completed
Mcj	Tennessee Unified Certification (TNUCP) GoDBE MWBE Lists City of Nashville MWBE Lists	2/1/2019	2/15/2019	
	MISCELLANEOUS REPORTS & DATA COLLECTED		2/15/2019	

Personnel Assigned Key

Mcj – Michele Clark Jenkins, Project Manager

Sterj-Sterling Johnson, Deputy Project Manager

Rh-Dr. Rom Haghighi, Chief Statistician

Sj-Susan Johnson, Project Administrator

JVE-Vince Egan, Principal Investigator

Price-Dr. Gregory Price, Senior Economist

Communications Strategies-Peter Woolfolk

Creative Research Solutions- Travis Tatum

Respectfully submitted this 11<sup>th</sup> day of January, 2019

By Michele Clark Jenkins  
Project Manager  
Griffin & Strong, P.C.



**APPENDIX D**  
**STUDY DEFINITIONS**

## APPENDIX D – STUDY DEFINITIONS

**Anecdotal** – A reported personal experience or encounter, retold through interview, testimony, email, or survey. Not necessarily verified or based on research.

**Availability** – A calculated percentage computed by dividing the number of businesses in each study group by the total number of businesses in the pool for that work category.

**City of Richmond v. J.A. Croson Company 488 U.S. 469 (1989) (“Croson”)** – Laws that, on their face, favor one class of citizens over another, may run afoul of the Equal Protection Clause of the 14 Amendment of the U.S. Constitution even if those laws are meant to remedy discrimination. Such laws, including those that create race conscious programs, must withstand judicial “strict scrutiny” or they will be dismantled. In its Croson decision, the Supreme Court ruled that the City of Richmond’s Minority Business Enterprise (hereinafter “MBE”) program failed to satisfy the requirements of “strict scrutiny” review under the 14<sup>th</sup> Amendment “Strict scrutiny” review involves two co-equal considerations to determine whether a race conscious program can withstand the Strict Scrutiny: First, the need to demonstrate a compelling governmental interest (which may be established through periodic disparity studies); Second, implementation of a program or method narrowly-tailored to achieve/remedy the compelling interest. In Croson, the Supreme Court concluded that the City of Richmond failed to show that its minority set-aside program was “necessary” to remedy the effects of discrimination in the marketplace.

**Disparity Index** – A statistical measure demonstrated by the failure to meet parity between availability and Utilization. Disparity is calculated by comparing the utilization percentage to the availability percentage of each race/gender/ethnic group. Will result in either overutilization, underutilization or parity.

**Disparity Study (“Study”)** – A tool, identified by the Supreme Court as necessary for satisfying the strict scrutiny threshold for race conscious programs and demonstrating the compelling governmental interest by “factual predicate” that identifies discrimination and a narrowly tailored remedy to redress any finding of discrimination. Must adhere to the legal requirements of U.S Supreme Court decisions like City of Richmond v. J.A. Croson Company, 488 U.S. 469 (1989) and its progeny. Disparity studies are not designed to be an analysis of any current remedial programs but an analysis of race, ethnicity, and gender status and how it affects participation in the procurement process and in the marketplace.

**Fiscal Year (“FY”)** – The business year for MNAA for purchasing and accounting purposes. Measured by MNAA from July 1 – June 30<sup>th</sup>. The study period for this study is FY 2014-2018.

**Good Faith Efforts (“GFE”)** – The documentation and verification process to ensure that prime contractors are soliciting and negotiating with MWBEs in “good faith” for potential subcontracting opportunities.

**Metropolitan Nashville MSA** – The MSA is a geographical area that consists of a city and surrounding communities that are linked by social and economic factors, as established by the U.S. Office of Management and Budget (OMB). The Metropolitan Nashville MSA is comprised of Davidson County, TN; Williamson County, TN; and Wilson County, TN.

**Minority Business Enterprise (“MBE”)** – any for-profit business owned and controlled by an individual or group of individuals who have at least 51% stake in ownership and identify with one of the following ethnic minority groups:

- Black American
- Asian American
- Hispanic American
- Native American

**MWBE** – For profit businesses owned and controlled by a person or group of individuals who have at least 51% stake in ownership and identify as an MBE or Nonminority Woman.

**Non-MWDBE** – Any for profit business owned and controlled by a person or group of individuals who have at least 51% stake in ownership and identify as either Caucasian Males or is Publicly Traded with no majority owner of which to attribute an ethnicity. Not-for-profit and governmental entities are not included as Non-MWDBEs.

**Nonminority Female** – Any for profit business owned and controlled by an individual or group of individuals who have at least 51% stake in ownership and identify as Non-Hispanic Caucasian women.

**Overutilization** – The measure by which the utilization percentage is higher than the availability percentage and the Disparity Index is above 100. In order to be statistically significantly overutilized, the Disparity Index must be 110 or more.

**Parity** – The absence of disparity, demonstrated by the utilization percentage being equal to availability percentage and the Disparity Index equaling 100.

**Prime Contractor** – A business who has entered into direct contractual relationship with MNAA, or other public or private entity to provide a good, service, or perform a scope of services.

**Qualitative Analysis** – Also known as anecdotal analysis. Referring to a measurement of quality (ex. how good over how much). Typified through collection and analysis of constituents’ anecdotal impressions, such as interviews, public hearings, focus groups, and other forms of commentary.

**Quantitative Analysis** – Commonly referred to as statistical analysis. Referring to a measurement of quantity over quality (ex. how much over how good). Typified by analysis of mathematical or statistical modeling.

**Regression Analysis** – Statistical measure used to determine whether the race, ethnicity or gender status of a business owner are an impediment in contracting in the MNAA marketplace and whether but for these, they would have the capacity to provide services on a higher level than is currently utilized.

**Relevant Market** – A statistical measure, determined by where MNAA has spent at least 75% of its prime payment dollars. All aspects of the availability, utilization, and disparity analysis will encompass only firms located within the relevant market, by work category, to ensure that any resulting program is “narrowly tailored” per Croson standards. MNAA’s Relevant Market is the Metropolitan Nashville MSA (“Metropolitan Statistical Area”)

**Strict Scrutiny** – The highest level of judicial scrutiny used in determining the constitutionality of laws.

**Study Period** – The period between which all City payments are subject to study analysis. For this study it has been defined as July 1, 2013 – June 30, 2018 (FY14-FY18)

**Subcontractor** – A business who has entered into a direct contractual relationship with a Prime Contractor to either provide a good or service or perform a full scope, or portion of a scope of services.

**Utilization** – A review of MNAA’s payment to determine where and with whom Prime Contractor and Subcontractor payments were made. The analysis is conducted both with regard to the number of firms and the dollars in each race, ethnicity, gender group during each year of the Study.

**Work Categories** – The work categories for services which are purchased by MNAA and are utilized by MNAA (for primes) and MNAA primes (for subcontractors). For the purpose of this study, contract data was collected and analyzed in the following business sectors.

- Construction & Construction Related Professional Services (Federal)
- Construction & Construction Related Professional Services (non-Federal)
- Professional Services
- Goods & Services

**Underutilization** – The measure by which the utilization percentage is less than the availability percentage and the Disparity Index is below 100. In order to be statistically significantly underutilized, the Disparity Index must be 80 or less.

APPENDIX E  
ALL AVAILABILITY

APPENDIX E- All Availability

Table E-1 represents a summary of all Availability in the Relevant Market for each of the four (4) Industry Categories by ethnicity and gender.

Table E-2 represents a summary of all Availability in the State of Tennessee, which is MNAA's current Program Area.

**Table E-1**  
**MNAA Disparity Study**  
**Availability of Firms by Business Ownership in Relevant Market**

Business Ownership Classification	Construction and Construction Related Professional Services- Nonfederal		Construction and Construction Related Professional Services- Federal		Goods and Services	
	#	%	#	%	#	%
Black American	123	18.61%	87	18.61%	89	10.40%
Asian American	11	1.66%	4	1.66%	6	0.70%
Hispanic American	13	1.97%	11	1.97%	10	1.17%
Native American	3	0.45%	1	0.45%	3	0.35%
<b>TOTAL MBE</b>	<b>150</b>	<b>22.69%</b>	<b>103</b>	<b>22.69%</b>	<b>108</b>	<b>12.62%</b>
Nonminority Female	100	15.13%	57	15.13%	45	5.26%
<b>TOTAL M/WBE</b>	<b>250</b>	<b>37.82%</b>	<b>160</b>	<b>37.82%</b>	<b>153</b>	<b>17.87%</b>
NON-M/WDBE	411	62.18%	394	62.18%	703	82.13%
<b>TOTAL FIRMS</b>	<b>661</b>	<b>100.00%</b>	<b>554</b>	<b>100.00%</b>	<b>856</b>	<b>100.00%</b>

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**Table E-1**  
**MNAA Disparity Study**  
**Availability of Firms by Business Ownership in the Program Area (State of Tennessee)**

Business Ownership Classification	Construction and Construction-Related Professional Services		Professional Services		Goods and Services	
	#	%	#	%	#	%
Black American	156	16.05%	90	12.93%	192	16.86%
Asian American	15	1.54%	6	0.86%	11	0.97%
Hispanic American	18	1.85%	17	2.44%	13	1.14%
Native American	6	0.62%	1	0.14%	5	0.44%
<b>TOTAL MBE</b>	<b>195</b>	<b>20.06%</b>	<b>114</b>	<b>16.38%</b>	<b>221</b>	<b>19.40%</b>
Nonminority Female	123	12.65%	58	8.33%	75	6.58%
<b>TOTAL M/WBE</b>	<b>318</b>	<b>32.72%</b>	<b>172</b>	<b>24.71%</b>	<b>296</b>	<b>25.99%</b>
NON-M/W/DBE	654	67.28%	524	75.29%	843	74.01%
<b>TOTAL FIRMS</b>	<b>972</b>	<b>100.00%</b>	<b>696</b>	<b>100.00%</b>	<b>1,139</b>	<b>100.00%</b>

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# APPENDIX F

## MNAA SPEND BY COUNTY



## APPENDIX F

The tables in Appendix F (Tables F-1 through F-4) presents the payments by county for all MNAA prime spending, broken down by the four procurement categories. The counties are arranged from the highest dollar value to the lowest dollar value. The first percentage column is the percentage of MNAA prime spending with firms in that county and the last column is the cumulative percentage of MNAA spending with firms for that county and the counties above it.

**Table F-1**  
**MNAA Disparity Study**  
**Relevant Market Area**  
**Procurement by Market Area Counties, Prime Construction and Construction Related**  
**Professional Services-Nonfederal**  
**(Using Payments, FY 2014-2018)**

County and State	Amount	Percent	Cumulative Percent
DAVIDSON COUNTY, TN	\$ 180,268,801	73.30%	73.30%
WILLIAMSON COUNTY, TN	\$ 11,794,684	4.80%	78.10%
WILSON COUNTY, TN	\$ 9,690,364	3.94%	82.04%
SUMNER COUNTY, TN	\$ 4,760,863	1.94%	83.97%
RUTHERFORD COUNTY, TN	\$ 4,244,425	1.73%	85.70%
HICKMAN COUNTY, TN	\$ 1,361,266	0.55%	86.25%
DICKSON COUNTY, TN	\$ 1,161,934	0.47%	86.72%
GILES COUNTY, TN	\$ 822,590	0.33%	87.06%
PUTNAM COUNTY, TN	\$ 683,896	0.28%	87.34%
KNOX COUNTY, TN	\$ 316,213	0.13%	87.47%
ROBERTSON COUNTY, TN	\$ 113,826	0.05%	87.51%
SHELBY COUNTY, TN	\$ 108,556	0.04%	87.56%
GIBSON COUNTY, TN	\$ 69,638	0.03%	87.58%
HAMILTON COUNTY, TN	\$ 11,861	0.00%	87.59%
LINCOLN COUNTY, TN	\$ 9,875	0.00%	87.59%
MAURY COUNTY, TN	\$ 8,000	0.00%	87.60%
SMITH COUNTY, TN	\$ 2,227	0.00%	87.60%
LAWRENCE COUNTY, TN	\$ 340	0.00%	87.60%
DALLAS COUNTY, TX	\$ 16,400,415	6.67%	94.27%
MARICOPA COUNTY, AZ	\$ 4,463,504	1.81%	96.08%
ORANGE COUNTY, FL	\$ 3,031,836	1.23%	97.31%
WARRICK COUNTY, IN	\$ 1,665,658	0.68%	97.99%
ALBANY COUNTY, NY	\$ 1,191,636	0.48%	98.48%
ALLEGHENY COUNTY, PA	\$ 748,193	0.30%	98.78%
FULTON COUNTY, GA	\$ 531,821	0.22%	99.00%
DEKALB COUNTY, GA	\$ 405,911	0.17%	99.16%
DELAWARE COUNTY, PA	\$ 381,747	0.16%	99.32%
COOK COUNTY, IL	\$ 183,481	0.07%	99.39%
MIDDLESEX COUNTY, MA	\$ 149,713	0.06%	99.45%
TARRANT COUNTY, TX	\$ 137,796	0.06%	99.51%
SAINT LOUIS COUNTY, MO	\$ 113,198	0.05%	99.55%
MECKLENBURG COUNTY, NC	\$ 112,644	0.05%	99.60%
LYON COUNTY, KY	\$ 93,880	0.04%	99.64%
JEFFERSON COUNTY, AL	\$ 78,023	0.03%	99.67%

**Table F-1 (con't)**  
**MNAA Disparity Study**  
**Relevant Market Area**  
**Procurement by Market Area Counties, Prime Construction and Construction Related**  
**Professional Services-Nonfederal**  
**(Using Payments, FY 2014-2018)**

County and State	Amount	Percent	Cumulative Percent
NEW YORK COUNTY, NY	\$ 70,580	0.03%	99.70%
ADAMS COUNTY, PA	\$ 69,144	0.03%	99.73%
HENNEPIN COUNTY, MN	\$ 65,094	0.03%	99.75%
DOUGLAS COUNTY, NE	\$ 64,703	0.03%	99.78%
MADISON COUNTY, AL	\$ 54,407	0.02%	99.80%
MILWAUKEE COUNTY, WI	\$ 45,632	0.02%	99.82%
PHILADELPHIA COUNTY, PA	\$ 45,219	0.02%	99.84%
WORCESTER COUNTY, MA	\$ 40,491	0.02%	99.85%
GEAUGA COUNTY, OH	\$ 39,850	0.02%	99.87%
LAKE COUNTY, OH	\$ 35,705	0.01%	99.89%
WALKER COUNTY, AL	\$ 29,694	0.01%	99.90%
SAN LUIS OBISPO COUNTY, CA	\$ 27,627	0.01%	99.91%
UNION COUNTY, NC	\$ 21,579	0.01%	99.92%
RICHLAND COUNTY, SC	\$ 16,527	0.01%	99.92%
LOS ANGELES COUNTY, CA	\$ 13,000	0.01%	99.93%
OKALOOSA COUNTY, FL	\$ 12,606	0.01%	99.93%
LUCAS COUNTY, OH	\$ 11,950	0.00%	99.94%
RAMSEY COUNTY, MN	\$ 11,545	0.00%	99.94%
WASHTENAW COUNTY, MI	\$ 11,065	0.00%	99.95%
JOHNSON COUNTY, KS	\$ 9,900	0.00%	99.95%
GWINNETT COUNTY, GA	\$ 9,772	0.00%	99.96%
COBB COUNTY, GA	\$ 9,592	0.00%	99.96%
BOONE COUNTY, IN	\$ 9,240	0.00%	99.96%
BENTON COUNTY, WA	\$ 8,425	0.00%	99.97%
SUFFOLK COUNTY, MA	\$ 7,678	0.00%	99.97%
RAINS COUNTY, TX	\$ 7,200	0.00%	99.97%
GRAYSON COUNTY, KY	\$ 7,023	0.00%	99.98%
FRANKLIN COUNTY, OH	\$ 6,493	0.00%	99.98%
TUSCALOOSA COUNTY, AL	\$ 6,000	0.00%	99.98%
WAKE COUNTY, NC	\$ 5,556	0.00%	99.98%
NEW HANOVER COUNTY, NC	\$ 5,112	0.00%	99.99%
JACKSON COUNTY, MO	\$ 4,700	0.00%	99.99%
CANADIAN COUNTY, OK	\$ 4,259	0.00%	99.99%
OAKLAND COUNTY, MI	\$ 3,564	0.00%	99.99%

**Table F-1 (con't)**  
**MNAA Disparity Study**  
**Relevant Market Area**  
**Procurement by Market Area Counties, Prime Construction and Construction Related**  
**Professional Services-Nonfederal**  
**(Using Payments, FY 2014-2018)**

County and State	Amount	Percent	Cumulative Percent
HOWARD COUNTY, MD	\$ 3,146	0.00%	99.99%
KNOTT COUNTY, KY	\$ 2,659	0.00%	99.99%
PINELLAS COUNTY, FL	\$ 2,043	0.00%	99.99%
DUVAL COUNTY, FL	\$ 1,829	0.00%	99.99%
WARREN COUNTY, KY	\$ 1,472	0.00%	100.00%
JEFFERSON COUNTY, KY	\$ 1,320	0.00%	100.00%
MUSKEGON COUNTY, MI	\$ 1,254	0.00%	100.00%
DOUGLAS COUNTY, GA	\$ 1,036	0.00%	100.00%
DESOTO COUNTY, MS	\$ 971	0.00%	100.00%
HENDERSON COUNTY, NC	\$ 855	0.00%	100.00%
SANTA CLARA COUNTY, CA	\$ 198	0.00%	100.00%
CANADA	\$ 5,763	0.00%	100.00%
<b>Total</b>	<b>\$ 245,932,293</b>	100.00%	

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**Table F- 2**  
**MNAA Disparity Study**  
**Relevant Market Area**  
**Procurement by Market Area Counties and State, Prime Construction**  
**and Construction Related Professional Services-Federal**  
**(Using Payments, FY 2014-2018)**

County and State	Amount	Percent	Cumulative Percent
DAVIDSON COUNTY, TN	\$ 50,777,531	60.12%	60.12%
WILLIAMSON COUNTY, TN	\$ 15,863,223	18.78%	78.90%
WILSON COUNTY, TN	\$ 17,688,321	20.94%	99.84%
SUMNER COUNTY, TN	\$ 5,300	0.01%	99.85%
RUTHERFORD COUNTY, TN	\$ 1,474	0.00%	99.85%
WASHTENAW COUNTY, MI	\$ 102,581	0.12%	99.97%
HENNEPIN COUNTY, MN	\$ 5,513	0.01%	99.98%
OUT OF US AND CANADA	\$ 17,924	0.02%	100.00%
<b>Total</b>	<b>\$ 84,461,865</b>	<b>100.00%</b>	
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**Table F-3**  
**MNAA Disparity Study**  
**Relevant Market Area**  
**Procurement by Market Area Counties and State, Prime Professional Services**  
**(Using Payments, FY 2014-2018)**

County and State	Amount	Percent	Cumulative Percent
DAVIDSON COUNTY, TN	\$ 94,250,315	77.23%	77.23%
WILLIAMSON COUNTY, TN	\$ 5,507,465	4.51%	81.75%
WILSON COUNTY, TN	\$ 2,190,254	1.79%	83.54%
MONTGOMERY COUNTY, TN	\$ 461,839	0.38%	83.92%
STEWART COUNTY, TN	\$ 425,786	0.35%	84.27%
RUTHERFORD COUNTY, TN	\$ 173,798	0.14%	84.41%
FRANKLIN COUNTY, TN	\$ 112,163	0.09%	84.50%
SUMNER COUNTY, TN	\$ 104,568	0.09%	84.59%
MAURY COUNTY, TN	\$ 87,821	0.07%	84.66%
MARSHALL COUNTY, TN	\$ 83,827	0.07%	84.73%
KNOX COUNTY, TN	\$ 37,074	0.03%	84.76%
HENRY COUNTY, TN	\$ 20,791	0.02%	84.78%
PUTNAM COUNTY, TN	\$ 15,752	0.01%	84.79%
SMITH COUNTY, TN	\$ 15,500	0.01%	84.80%
BLOUNT COUNTY, TN	\$ 15,000	0.01%	84.81%
ROBERTSON COUNTY, TN	\$ 14,375	0.01%	84.83%
SHELBY COUNTY, TN	\$ 10,135	0.01%	84.83%
CHEATHAM COUNTY, TN	\$ 8,211	0.01%	84.84%
DICKSON COUNTY, TN	\$ 2,800	0.00%	84.84%
DEKALB COUNTY, TN	\$ 2,500	0.00%	84.85%
HAMILTON COUNTY, TN	\$ 2,300	0.00%	84.85%
BLEDSON COUNTY, TN	\$ 500	0.00%	84.85%
MCNAIRY COUNTY, TN	\$ 300	0.00%	84.85%
COOK COUNTY, IL	\$ 3,535,278	2.90%	87.75%
TARRANT COUNTY, TX	\$ 1,484,962	1.22%	88.96%
FAIRFAX COUNTY, VA	\$ 1,085,342	0.89%	89.85%
DALLAS COUNTY, TX	\$ 828,329	0.68%	90.53%
HARRIS COUNTY, TX	\$ 674,913	0.55%	91.08%
MIDDLESEX COUNTY, MA	\$ 647,672	0.53%	91.61%
ALAMEDA COUNTY, CA	\$ 619,006	0.51%	92.12%
MARICOPA COUNTY, AZ	\$ 600,530	0.49%	92.61%
FULTON COUNTY, GA	\$ 503,823	0.41%	93.03%
LOS ANGELES COUNTY, CA	\$ 472,858	0.39%	93.41%

**Table F-3 (con't)**  
**MNAA Disparity Study**  
**Relevant Market Area**  
**Procurement by Market Area Counties and State, Prime Professional Services**  
**(Using Payments, FY 2014-2018)**

County and State	Amount	Percent	Cumulative Percent
SANTA BARBARA COUNTY, CA	\$ 435,700	0.36%	93.77%
SAN DIEGO COUNTY, CA	\$ 432,413	0.35%	94.13%
CHESTER COUNTY, PA	\$ 426,558	0.35%	94.47%
NEW YORK COUNTY, NY	\$ 408,990	0.34%	94.81%
BALTIMORE CITY COUNTY, MD	\$ 362,937	0.30%	95.11%
SAINT LOUIS COUNTY, MO	\$ 332,153	0.27%	95.38%
LUCAS COUNTY, OH	\$ 310,782	0.25%	95.63%
DUVAL COUNTY, FL	\$ 264,425	0.22%	95.85%
WAYNE COUNTY, MI	\$ 249,845	0.20%	96.06%
OKLAHOMA COUNTY, OK	\$ 236,982	0.19%	96.25%
TRAVIS COUNTY, TX	\$ 191,239	0.16%	96.41%
SALT LAKE COUNTY, UT	\$ 178,173	0.15%	96.55%
GWINNETT COUNTY, GA	\$ 155,549	0.13%	96.68%
ESSEX COUNTY, NJ	\$ 153,259	0.13%	96.81%
COBB COUNTY, GA	\$ 151,687	0.12%	96.93%
DAKOTA COUNTY, MN	\$ 148,700	0.12%	97.05%
ALEXANDRIA CITY COUNTY, VA	\$ 146,092	0.12%	97.17%
CULPEPER COUNTY, VA	\$ 143,391	0.12%	97.29%
OLMSTED COUNTY, MN	\$ 139,020	0.11%	97.40%
BERKS COUNTY, PA	\$ 134,365	0.11%	97.51%
NASSAU COUNTY, FL	\$ 119,536	0.10%	97.61%
MONTGOMERY COUNTY, MD	\$ 119,389	0.10%	97.71%
SACRAMENTO COUNTY, CA	\$ 114,530	0.09%	97.80%
MECKLENBURG COUNTY, NC	\$ 114,373	0.09%	97.90%
DENVER COUNTY, CO	\$ 113,226	0.09%	97.99%
FRANKLIN COUNTY, OH	\$ 101,086	0.08%	98.07%
LEE COUNTY, MS	\$ 95,000	0.08%	98.15%
MONTEREY COUNTY, CA	\$ 87,013	0.07%	98.22%
SUFFOLK COUNTY, MA	\$ 81,808	0.07%	98.29%
JEFFERSON COUNTY, CO	\$ 81,213	0.07%	98.35%
RIVERSIDE COUNTY, CA	\$ 75,780	0.06%	98.42%
BROWARD COUNTY, FL	\$ 74,255	0.06%	98.48%
WOODFORD COUNTY, KY	\$ 71,989	0.06%	98.54%
MORRIS COUNTY, NJ	\$ 70,319	0.06%	98.59%

**Table F-3 (con't)**  
**MNAA Disparity Study**  
**Relevant Market Area**  
**Procurement by Market Area Counties and State, Prime Professional Services**  
**(Using Payments, FY 2014-2018)**

County and State	Amount	Percent	Cumulative Percent
PHILADELPHIA COUNTY, PA	\$ 63,334	0.05%	98.65%
DUPAGE COUNTY, IL	\$ 61,357	0.05%	98.70%
COLLIER COUNTY, FL	\$ 55,750	0.05%	98.74%
PINELLAS COUNTY, FL	\$ 52,375	0.04%	98.79%
DESCHUTES COUNTY, OR	\$ 49,988	0.04%	98.83%
HENNEPIN COUNTY, MN	\$ 49,484	0.04%	98.87%
WARREN COUNTY, KY	\$ 48,011	0.04%	98.91%
DUTCHESS COUNTY, NY	\$ 44,000	0.04%	98.94%
ORANGE COUNTY, FL	\$ 42,350	0.03%	98.98%
SAINT LOUIS CITY COUNTY, MO	\$ 41,895	0.03%	99.01%
FAYETTE COUNTY, KY	\$ 37,550	0.03%	99.04%
CLINTON COUNTY, OH	\$ 32,164	0.03%	99.07%
MARIN COUNTY, CA	\$ 30,678	0.03%	99.09%
ALLEGHENY COUNTY, PA	\$ 29,950	0.02%	99.12%
FALL RIVER COUNTY, SD	\$ 29,500	0.02%	99.14%
CASS COUNTY, ND	\$ 27,754	0.02%	99.16%
MONTGOMERY COUNTY, AL	\$ 20,343	0.02%	99.18%
NORFOLK COUNTY, MA	\$ 18,766	0.02%	99.20%
FORSYTH COUNTY, NC	\$ 18,345	0.02%	99.21%
OAKLAND COUNTY, MI	\$ 18,133	0.01%	99.23%
ONEIDA COUNTY, NY	\$ 16,285	0.01%	99.24%
WAKE COUNTY, NC	\$ 15,150	0.01%	99.25%
JEFFERSON COUNTY, AL	\$ 14,733	0.01%	99.26%
LANCASTER COUNTY, PA	\$ 14,427	0.01%	99.28%
FAIRFIELD COUNTY, CT	\$ 14,400	0.01%	99.29%
SAN FRANCISCO COUNTY, CA	\$ 14,400	0.01%	99.30%
HENRICO COUNTY, VA	\$ 14,024	0.01%	99.31%
DAUPHIN COUNTY, PA	\$ 14,000	0.01%	99.32%
JEFFERSON COUNTY, KY	\$ 13,938	0.01%	99.33%
SEMINOLE COUNTY, FL	\$ 13,030	0.01%	99.35%
POLK COUNTY, FL	\$ 12,590	0.01%	99.36%
CLARK COUNTY, NV	\$ 12,122	0.01%	99.37%
SANTA CLARA COUNTY, CA	\$ 11,600	0.01%	99.37%



**Table F-3 (con't)**  
**MNAA Disparity Study**  
**Relevant Market Area**  
**Procurement by Market Area Counties and State, Prime Professional Services**  
**(Using Payments, FY 2014-2018)**

County and State	Amount	Percent	Cumulative Percent
JOHNSON COUNTY, KS	\$ 11,203	0.01%	99.38%
LAKE COUNTY, CA	\$ 10,755	0.01%	99.39%
PALM BEACH COUNTY, FL	\$ 10,197	0.01%	99.40%
DISTRICT OF COLUMBIA COUNTY, DC	\$ 10,180	0.01%	99.41%
DURHAM COUNTY, NC	\$ 8,466	0.01%	99.42%
WASHTENAW COUNTY, MI	\$ 8,387	0.01%	99.42%
PROVIDENCE COUNTY, RI	\$ 8,055	0.01%	99.43%
MIDDLESEX COUNTY, CT	\$ 7,532	0.01%	99.44%
ROCKINGHAM COUNTY, NH	\$ 7,190	0.01%	99.44%
SCHOHARIE COUNTY, NY	\$ 6,947	0.01%	99.45%
MIAMI-DADE COUNTY, FL	\$ 6,790	0.01%	99.45%
NIAGARA COUNTY, NY	\$ 6,144	0.01%	99.46%
WASHINGTON COUNTY, MD	\$ 6,091	0.00%	99.46%
BUTLER COUNTY, PA	\$ 6,078	0.00%	99.47%
TULSA COUNTY, OK	\$ 5,623	0.00%	99.47%
JACKSON COUNTY, MO	\$ 5,537	0.00%	99.48%
DOUGLAS COUNTY, NE	\$ 4,813	0.00%	99.48%
HAMILTON COUNTY, IN	\$ 4,676	0.00%	99.49%
MARION COUNTY, IN	\$ 4,600	0.00%	99.49%
MADISON COUNTY, AL	\$ 4,500	0.00%	99.49%
CRITTENDEN COUNTY, AR	\$ 3,845	0.00%	99.50%
RAMSEY COUNTY, MN	\$ 3,744	0.00%	99.50%
SAN BERNARDINO COUNTY, CA	\$ 3,493	0.00%	99.50%
CUMBERLAND COUNTY, ME	\$ 3,419	0.00%	99.50%
HAMILTON COUNTY, OH	\$ 3,168	0.00%	99.51%
PONTOTOC COUNTY, OK	\$ 3,124	0.00%	99.51%
GREENE COUNTY, OH	\$ 3,000	0.00%	99.51%
LEXINGTON COUNTY, SC	\$ 2,835	0.00%	99.51%
FLOYD COUNTY, GA	\$ 2,685	0.00%	99.52%
CLACKAMAS COUNTY, OR	\$ 2,445	0.00%	99.52%
JEFFERSON COUNTY, IN	\$ 2,000	0.00%	99.52%
NORFOLK CITY COUNTY, VA	\$ 2,000	0.00%	99.52%
WOOD COUNTY, OH	\$ 2,000	0.00%	99.52%
EAGLE COUNTY, CO	\$ 1,900	0.00%	99.53%

**Table F-3 (con't)**  
**MNAA Disparity Study**  
**Relevant Market Area**  
**Procurement by Market Area Counties and State, Prime Professional Services**  
**(Using Payments, FY 2014-2018)**

County and State	Amount	Percent	Cumulative Percent
SUMMIT COUNTY, OH	\$ 1,830	0.00%	99.53%
JEFFERSON COUNTY, WI	\$ 1,650	0.00%	99.53%
DESOTO COUNTY, MS	\$ 1,452	0.00%	99.53%
ADA COUNTY, ID	\$ 1,450	0.00%	99.53%
ORANGE COUNTY, CA	\$ 1,417	0.00%	99.53%
KINGS COUNTY, NY	\$ 1,100	0.00%	99.53%
CHARLESTON COUNTY, SC	\$ 850	0.00%	99.53%
BUNCOMBE COUNTY, NC	\$ 750	0.00%	99.53%
SPOKANE COUNTY, WA	\$ 707	0.00%	99.53%
BOONE COUNTY, KY	\$ 599	0.00%	99.53%
PAYNE COUNTY, OK	\$ 560	0.00%	99.54%
TALBOT COUNTY, MD	\$ 511	0.00%	99.54%
LAWRENCE COUNTY, IN	\$ 500	0.00%	99.54%
WYTHE COUNTY, VA	\$ 315	0.00%	99.54%
PRINCE GEORGES COUNTY, MD	\$ 300	0.00%	99.54%
DEKALB COUNTY, GA	\$ 273	0.00%	99.54%
KING COUNTY, WA	\$ 200	0.00%	99.54%
MUHLENBERG COUNTY, KY	\$ 50	0.00%	99.54%
CANADA	\$ 26,096	0.02%	99.56%
OUT OF US AND CANADA	\$ 538,802	0.44%	100.00%
<b>Total</b>	<b>\$ 122,032,819</b>	<b>100.00%</b>	

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**Table F-4**  
**MNAA Disparity Study**  
**Relevant Market Area**  
**Procurement by Market Area Counties and State, Prime Goods and Services**  
**(Using Payments, FY 2014-2018)**

County and State	Amount	Percent	Cumulative Percent
DAVIDSON COUNTY, TN	\$ 88,790,927	77.67%	77.67%
WILSON COUNTY, TN	\$ 971,620	0.85%	78.52%
WILLIAMSON COUNTY, TN	\$ 616,751	0.54%	79.06%
RUTHERFORD COUNTY, TN	\$ 1,223,837	1.07%	80.13%
KNOX COUNTY, TN	\$ 203,518	0.18%	80.31%
SHELBY COUNTY, TN	\$ 151,673	0.13%	80.44%
MAURY COUNTY, TN	\$ 136,533	0.12%	80.56%
BEDFORD COUNTY, TN	\$ 135,258	0.12%	80.68%
COFFEE COUNTY, TN	\$ 129,107	0.11%	80.79%
HAMILTON COUNTY, TN	\$ 125,137	0.11%	80.90%
SUMNER COUNTY, TN	\$ 105,194	0.09%	80.99%
ANDERSON COUNTY, TN	\$ 72,163	0.06%	81.06%
DICKSON COUNTY, TN	\$ 60,261	0.05%	81.11%
MADISON COUNTY, TN	\$ 56,197	0.05%	81.16%
PUTNAM COUNTY, TN	\$ 1,543	0.00%	81.16%
ROBERTSON COUNTY, TN	\$ 1,537	0.00%	81.16%
SMITH COUNTY, TN	\$ 1,200	0.00%	81.16%
STEWART COUNTY, TN	\$ 144	0.00%	81.16%
ADA COUNTY, ID	\$ 535	0.00%	81.16%
ADAMS COUNTY, IN	\$ 1,350	0.00%	81.16%
ALAMEDA COUNTY, CA	\$ 1,095	0.00%	81.16%
ALLEGHENY COUNTY, PA	\$ 70,746	0.06%	81.23%
BALDWIN COUNTY, AL	\$ 3,185	0.00%	81.23%
BALTIMORE CITY COUNTY, MD	\$ 378	0.00%	81.23%
BELL COUNTY, TX	\$ 607	0.00%	81.23%
BERKS COUNTY, PA	\$ 2,163	0.00%	81.23%
BERNALILLO COUNTY, NM	\$ 796	0.00%	81.23%
BLACK HAWK COUNTY, IA	\$ 932	0.00%	81.23%
BLAIR COUNTY, PA	\$ 902	0.00%	81.23%
BOULDER COUNTY, CO	\$ 217,797	0.19%	81.42%
BROWARD COUNTY, FL	\$ 16,165	0.01%	81.44%
BRUNSWICK COUNTY, NC	\$ 44,889	0.04%	81.48%
BULLITT COUNTY, KY	\$ 109	0.00%	81.48%
BUNCOMBE COUNTY, NC	\$ 7,126	0.01%	81.48%
BUREAU COUNTY, IL	\$ 8,192	0.01%	81.49%

**Table F-4 (con't)**  
**MNAA Disparity Study**  
**Relevant Market Area**  
**Procurement by Market Area Counties and State, Prime Goods and Services**  
**(Using Payments, FY 2014-2018)**

County and State	Amount	Percent	Cumulative Percent
BURLINGTON COUNTY, NJ	\$ 53,599	0.05%	81.54%
CALUMET COUNTY, WI	\$ 1,947	0.00%	81.54%
CARVER COUNTY, MN	\$ 13,228	0.01%	81.55%
CATAWBA COUNTY, NC	\$ 6,184	0.01%	81.56%
CERRO GORDO COUNTY, IA	\$ 1,052	0.00%	81.56%
CHEROKEE COUNTY, GA	\$ 4,088	0.00%	81.56%
CHESTER COUNTY, PA	\$ 6,308	0.01%	81.57%
CHISAGO COUNTY, MN	\$ 355,484	0.31%	81.88%
CLARK COUNTY, IN	\$ 4,790	0.00%	81.88%
CLAY COUNTY, MO	\$ 6,424	0.01%	81.89%
COBB COUNTY, GA	\$ 235,193	0.21%	82.09%
COOK COUNTY, IL	\$ 2,260,391	1.98%	84.07%
CROW WING COUNTY, MN	\$ 2,019	0.00%	84.07%
CULLMAN COUNTY, AL	\$ 3,248	0.00%	84.08%
CUYAHOGA COUNTY, OH	\$ 73,948	0.06%	84.14%
DALLAS COUNTY, TX	\$ 425,146	0.37%	84.51%
DARLINGTON COUNTY, SC	\$ 313	0.00%	84.51%
DEFIANCE COUNTY, OH	\$ 883	0.00%	84.51%
DEKALB COUNTY, GA	\$ 4,375	0.00%	84.52%
DESOTO COUNTY, MS	\$ 10,249	0.01%	84.53%
DORCHESTER COUNTY, MD	\$ 127,676	0.11%	84.64%
DUPAGE COUNTY, IL	\$ 176,354	0.15%	84.79%
EL PASO COUNTY, CO	\$ 56,633	0.05%	84.84%
FAIRFAX COUNTY, VA	\$ 5,163	0.00%	84.85%
FAIRFIELD COUNTY, CT	\$ 802,890	0.70%	85.55%
FAUQUIER COUNTY, VA	\$ 712	0.00%	85.55%
FLOYD COUNTY, IN	\$ 106,089	0.09%	85.64%
FORSYTH COUNTY, GA	\$ 36,914	0.03%	85.67%
FRANKLIN COUNTY, MA	\$ 35,900	0.03%	85.71%
FRANKLIN COUNTY, NC	\$ 25,406	0.02%	85.73%
FRANKLIN COUNTY, OH	\$ 26,857	0.02%	85.75%
FREEBORN COUNTY, MN	\$ 1,499	0.00%	85.75%
FULTON COUNTY, GA	\$ 1,838,364	1.61%	87.36%
FULTON COUNTY, OH	\$ 1,926	0.00%	87.36%
GRAVES COUNTY, KY	\$ 778	0.00%	87.36%

**Table F-4 (con't)**  
**MNAA Disparity Study**  
**Relevant Market Area**  
**Procurement by Market Area Counties and State, Prime Goods and Services**  
**(Using Payments, FY 2014-2018)**

County and State	Amount	Percent	Cumulative Percent
GREENE COUNTY, MO	\$ 61,703	0.05%	87.42%
GWINNETT COUNTY, GA	\$ 13,890	0.01%	87.43%
HALL COUNTY, GA	\$ 458	0.00%	87.43%
HAMILTON COUNTY, OH	\$ 180,003	0.16%	87.59%
HARRIS COUNTY, TX	\$ 406,002	0.36%	87.94%
HARTFORD COUNTY, CT	\$ 295	0.00%	87.94%
HENDERSON COUNTY, NC	\$ 67,596	0.06%	88.00%
HENNEPIN COUNTY, MN	\$ 524,124	0.46%	88.46%
HERNANDO COUNTY, FL	\$ 68,425	0.06%	88.52%
HILLSBOROUGH COUNTY, FL	\$ 8,490	0.01%	88.53%
HILLSBOROUGH COUNTY, NH	\$ 3,988	0.00%	88.53%
HORRY COUNTY, SC	\$ 35,753	0.03%	88.56%
HOWARD COUNTY, MD	\$ 2,521	0.00%	88.56%
IOWA COUNTY, WI	\$ 98,104	0.09%	88.65%
JACKSON COUNTY, MO	\$ 1,561,046	1.37%	90.02%
JEFFERSON COUNTY, AL	\$ 66,595	0.06%	90.07%
JEFFERSON COUNTY, KY	\$ 91,643	0.08%	90.15%
JEFFERSON COUNTY, MO	\$ 32,760	0.03%	90.18%
JO DAVIESS COUNTY, IL	\$ 152,813	0.13%	90.32%
JOHNSON COUNTY, KS	\$ 5,930	0.01%	90.32%
KENDALL COUNTY, IL	\$ 38,146	0.03%	90.36%
KENT COUNTY, MI	\$ 2,539	0.00%	90.36%
KING COUNTY, WA	\$ 717	0.00%	90.36%
KINGS COUNTY, NY	\$ 2,248	0.00%	90.36%
KITSAP COUNTY, WA	\$ 170,214	0.15%	90.51%
LACKAWANNA COUNTY, PA	\$ 6,126	0.01%	90.51%
LAKE COUNTY, IL	\$ 753	0.00%	90.51%
LANCASTER COUNTY, PA	\$ 400	0.00%	90.52%
LARIMER COUNTY, CO	\$ 2,520,560	2.20%	92.72%
LATAH COUNTY, ID	\$ 19,227	0.02%	92.74%
LAWRENCE COUNTY, MO	\$ 92	0.00%	92.74%
LEHIGH COUNTY, PA	\$ 2,410	0.00%	92.74%
LOS ANGELES COUNTY, CA	\$ 225,829	0.20%	92.94%

**Table F-4 (con't)**  
**MNAA Disparity Study**  
**Relevant Market Area**  
**Procurement by Market Area Counties and State, Prime Goods and Services**  
**(Using Payments, FY 2014-2018)**

County and State	Amount	Percent	Cumulative Percent
LOUDOUN COUNTY, VA	\$ 2,201	0.00%	92.94%
MACOMB COUNTY, MI	\$ 33,865	0.03%	92.97%
MARICOPA COUNTY, AZ	\$ 81,654	0.07%	93.04%
MARION COUNTY, IN	\$ 87,725	0.08%	93.12%
MECKLENBURG COUNTY, NC	\$ 765,370	0.67%	93.79%
MIAMI-DADE COUNTY, FL	\$ 38,484	0.03%	93.82%
MIDDLESEX COUNTY, MA	\$ 1,780	0.00%	93.82%
MILWAUKEE COUNTY, WI	\$ 129,164	0.11%	93.93%
MINNEHAHA COUNTY, SD	\$ 54,349	0.05%	93.98%
MONTGOMERY COUNTY, AL	\$ 219,263	0.19%	94.17%
MORGAN COUNTY, AL	\$ 511	0.00%	94.17%
NASSAU COUNTY, NY	\$ 297,139	0.26%	94.43%
NATRONA COUNTY, WY	\$ 11,533	0.01%	94.44%
NEW HAVEN COUNTY, CT	\$ 5,427	0.00%	94.45%
NEW YORK COUNTY, NY	\$ 10,223	0.01%	94.46%
OAKLAND COUNTY, MI	\$ 7,046	0.01%	94.46%
ONEIDA COUNTY, WI	\$ 4,643	0.00%	94.47%
ONONDAGA COUNTY, NY	\$ 417,315	0.37%	94.83%
ONSLow COUNTY, NC	\$ 7,710	0.01%	94.84%
ORANGE COUNTY, CA	\$ 39,279	0.03%	94.87%
ORANGE COUNTY, FL	\$ 26,594	0.02%	94.90%
ORANGE COUNTY, IN	\$ 4,565	0.00%	94.90%
ORANGE COUNTY, NC	\$ 14,514	0.01%	94.91%
PALO ALTO COUNTY, IA	\$ 6,807	0.01%	94.92%
PASCO COUNTY, FL	\$ 3,096	0.00%	94.92%
PENNINGTON COUNTY, MN	\$ 1,378	0.00%	94.92%
PHILADELPHIA COUNTY, PA	\$ 2,199,231	1.92%	96.85%
PIERCE COUNTY, WI	\$ 17,972	0.02%	96.86%
PIMA COUNTY, AZ	\$ 456	0.00%	96.86%
PLACER COUNTY, CA	\$ 14,900	0.01%	96.88%
POLK COUNTY, IA	\$ 5,565	0.00%	96.88%
POWESHIEK COUNTY, IA	\$ 981	0.00%	96.88%
PULASKI COUNTY, AR	\$ 36,196	0.03%	96.91%
QUEEN ANNES COUNTY, MD	\$ 4,000	0.00%	96.92%

**Table F-4 (con't)**  
**MNAA Disparity Study**  
**Relevant Market Area**  
**Procurement by Market Area Counties and State, Prime Goods and Services**  
**(Using Payments, FY 2014-2018)**

County and State	Amount	Percent	Cumulative Percent
RAMSEY COUNTY, MN	\$ 244,089	0.21%	97.13%
RICHMOND COUNTY, GA	\$ 69,600	0.06%	97.19%
ROCKINGHAM COUNTY, NC	\$ 362	0.00%	97.19%
ROCKINGHAM COUNTY, NH	\$ 42,018	0.04%	97.23%
SAINT LOUIS CITY COUNTY, MO	\$ 19,217	0.02%	97.25%
SAINT LOUIS COUNTY, MO	\$ 382,574	0.33%	97.58%
SAINT LUCIE COUNTY, FL	\$ 14,683	0.01%	97.59%
SAN DIEGO COUNTY, CA	\$ 1,596	0.00%	97.59%
SARASOTA COUNTY, FL	\$ 108,692	0.10%	97.69%
SIOUX COUNTY, IA	\$ 7,476	0.01%	97.70%
SKAGIT COUNTY, WA	\$ 2,952	0.00%	97.70%
SOLANO COUNTY, CA	\$ 50,520	0.04%	97.74%
STARK COUNTY, OH	\$ 6,955	0.01%	97.75%
SUFFOLK COUNTY, MA	\$ 20,918	0.02%	97.77%
SUFFOLK COUNTY, NY	\$ 3,316	0.00%	97.77%
SUMMIT COUNTY, OH	\$ 7,904	0.01%	97.78%
TARRANT COUNTY, TX	\$ 256,469	0.22%	98.00%
TAYLOR COUNTY, FL	\$ 6,301	0.01%	98.01%
THURSTON COUNTY, WA	\$ 6,388	0.01%	98.01%
TISHOMINGO COUNTY, MS	\$ 11,021	0.01%	98.02%
TOMPKINS COUNTY, NY	\$ 16,046	0.01%	98.04%
TRAVIS COUNTY, TX	\$ 19,129	0.02%	98.05%
TROUP COUNTY, GA	\$ 1,013,697	0.89%	98.94%
TUSCALOOSA COUNTY, AL	\$ 4,095	0.00%	98.94%
VANDERBURGH COUNTY, IN	\$ 33,817	0.03%	98.97%
VIRGINIA BEACH CITY COUNTY, VA	\$ 24,343	0.02%	98.99%
WAKE COUNTY, NC	\$ 13	0.00%	98.99%
WALKER COUNTY, GA	\$ 821,696	0.72%	99.71%
WARREN COUNTY, KY	\$ 24,676	0.02%	99.73%
WASHOE COUNTY, NV	\$ 170,643	0.15%	99.88%
WASHTENAW COUNTY, MI	\$ 5,985	0.01%	99.89%
WAUKESHA COUNTY, WI	\$ 5,756	0.01%	99.89%
WAYNE COUNTY, IN	\$ 7,375	0.01%	99.90%
WAYNE COUNTY, MI	\$ 4,775	0.00%	99.90%

**Table F-4 (con't)**  
**MNAA Disparity Study**  
**Relevant Market Area**  
**Procurement by Market Area Counties and State, Prime Goods and Services**  
**(Using Payments, FY 2014-2018)**

County and State	Amount	Percent	Cumulative Percent
WELD COUNTY, CO	\$ 8,422	0.01%	99.91%
WHITFIELD COUNTY, GA	\$ 19,011	0.02%	99.93%
WILLIAMSON COUNTY, TX	\$ 7,602	0.01%	99.94%
WORCESTER COUNTY, MA	\$ 54,710	0.05%	99.98%
YORK COUNTY, VA	\$ 1,822	0.00%	99.98%
CANADA	\$ 17,217	0.02%	100.00%
<b>Total</b>	<b>\$ 114,317,807</b>	<b>100.00%</b>	

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APPENDIX G  
ORGANIZATIONS CONTACTED

APPENDIX G – SOCIAL, CIVIC, AND TRADE ORGANIZATIONS INTERVIEWED FOR THE STUDY

A total of thirty (30) organizations were contacted and requested to interview for the disparity study. Only three (organizations) consented to interviews. They are listed below.

Tennessee SBA in Nashville
Tennessee State Small Business Development Center (TSBDC)
Metro Nashville Government Equity and Inclusion Office

APPENDIX H  
SURVEY OF BUSINESS OWNERS  
SURVEY RESULTS

# Nashville International Airport Disparity Study

A brief note on how tables are calculated

Duplicate responses have been removed. Duplicate responses were removed based on businesses having either the same email address or same business name.

The total count of responses for each question includes only those participants who responded to that question. Participants who skipped or were not given a question are not included.

Table 1

<i>Is your firm ready, willing and able to do business as a prime contractor with Nashville International Airport?</i>	<i>Owners' Minority Status</i>										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Yes</b>	38 92.7 %	43 69.4 %	34 69.4 %	2 66.7 %	1 100 %	3 60 %	1 100 %	1 100 %	3 100 %	4 100 %	130 76.5 %
<b>No</b>	3 7.3 %	19 30.6 %	15 30.6 %	1 33.3 %	0 0 %	2 40 %	0 0 %	0 0 %	0 0 %	0 0 %	40 23.5 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 2

<i>Is your firm ready, willing and able to do business as a subcontractor with Nashville International Airport?</i>	<i>Owners' Minority Status</i>										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Yes</b>	34 82.9 %	58 93.5 %	47 95.9 %	3 100 %	0 0 %	5 100 %	1 100 %	1 100 %	3 100 %	3 75 %	155 91.2 %
<b>No</b>	7 17.1 %	4 6.5 %	2 4.1 %	0 0 %	1 100 %	0 0 %	0 0 %	0 0 %	0 0 %	1 25 %	15 8.8 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 3

<i>Which one of the following is your company's primary line of business?</i>	<i>Owners' Minority Status</i>										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Construction</b>	5 12.2 %	6 9.8 %	7 14.6 %	1 33.3 %	0 0 %	3 60 %	0 0 %	0 0 %	0 0 %	1 25 %	23 13.7 %
<b>Construction Related Professional Services</b>	8 19.5 %	16 26.2 %	8 16.7 %	0 0 %	0 0 %	0 0 %	1 100 %	0 0 %	0 0 %	1 25 %	34 20.2 %
<b>Other Professional Services</b>	12 29.3 %	18 29.5 %	16 33.3 %	0 0 %	0 0 %	1 20 %	0 0 %	0 0 %	2 66.7 %	2 50 %	51 30.4 %
<b>Other Services and Goods</b>	15 36.6 %	19 31.1 %	12 25 %	2 66.7 %	0 0 %	1 20 %	0 0 %	1 100 %	1 33.3 %	0 0 %	51 30.4 %
<b>Concessions</b>	1 2.4 %	2 3.3 %	5 10.4 %	0 0 %	1 100 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	9 5.4 %
<b>Total</b>	41 100 %	61 100 %	48 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	168 100 %

Table 4

<i>How long has your company been in operation?</i>	<i>Owners' Minority Status</i>										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Under 1 year</b>	0 0 %	4 6.5 %	1 2 %	0 0 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	0 0 %	6 3.5 %
<b>1-5 years</b>	3 7.3 %	8 12.9 %	12 24.5 %	1 33.3 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	0 0 %	25 14.7 %
<b>6-10 years</b>	7 17.1 %	9 14.5 %	10 20.4 %	0 0 %	0 0 %	1 20 %	1 100 %	1 100 %	0 0 %	0 0 %	29 17.1 %
<b>11-15 year</b>	5 12.2 %	6 9.7 %	2 4.1 %	0 0 %	1 100 %	1 20 %	0 0 %	0 0 %	0 0 %	1 25 %	16 9.4 %
<b>15-20 years</b>	6 14.6 %	11 17.7 %	6 12.2 %	0 0 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	0 0 %	24 14.1 %
<b>Over 20 years</b>	20 48.8 %	24 38.7 %	18 36.7 %	2 66.7 %	0 0 %	0 0 %	0 0 %	0 0 %	3 100 %	3 75 %	70 41.2 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 5

<i>Is at least 51% percent of your company owned and controlled by a woman or women?</i>	<i>Owners' Minority Status</i>										<i>Total</i>
	<i>Non-Minority</i>	<i>Woman</i>	<i>Black</i>	<i>Subcontinent Asian</i>	<i>Asian Pacific Islander</i>	<i>Hispanic</i>	<i>Native American</i>	<i>Bi-Racial or Multi-Racial</i>	<i>Publicly Traded Company</i>	<i>Other</i>	
<b>Yes</b>	0 0 %	62 100 %	26 53.1 %	1 33.3 %	0 0 %	3 60 %	0 0 %	1 100 %	0 0 %	0 0 %	93 54.7 %
<b>No</b>	41 100 %	0 0 %	23 46.9 %	2 66.7 %	1 100 %	2 40 %	1 100 %	0 0 %	3 100 %	4 100 %	77 45.3 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 6

<i>Which of the following categories would you consider to be the race or ethnic origin that the person or persons that own at least 51% of the company identify as? Would you say:</i>	<i>Owners' Minority Status</i>										<i>Total</i>
	<i>Non-Minority</i>	<i>Woman</i>	<i>Black</i>	<i>Subcontinent Asian</i>	<i>Asian Pacific Islander</i>	<i>Hispanic</i>	<i>Native American</i>	<i>Bi-Racial or Multi-Racial</i>	<i>Publicly Traded Company</i>	<i>Other</i>	
<b>Caucasian</b>	41 100 %	61 98.4 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	102 60 %
<b>Black</b>	0 0 %	0 0 %	49 100 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	49 28.8 %
<b>Subcontinent Asian</b>	0 0 %	0 0 %	0 0 %	3 100 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	3 1.8 %
<b>Asian Pacific Islander</b>	0 0 %	0 0 %	0 0 %	0 0 %	1 100 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 0.6 %
<b>Hispanic</b>	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	5 100 %	0 0 %	0 0 %	0 0 %	0 0 %	5 2.9 %
<b>Native American</b>	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 100 %	0 0 %	0 0 %	0 0 %	1 0.6 %
<b>Bi-Racial or Multi-Racial</b>	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 100 %	0 0 %	0 0 %	1 0.6 %
<b>Publicly Traded Company</b>	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	3 100 %	0 0 %	3 1.8 %
<b>Other</b>	0 0 %	1 1.6 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	4 100 %	5 2.9 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %



<b>\$1,500,000</b>	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
<b>\$1,500,001 - \$5,000,000</b>	12 29.3 %	7 11.3 %	4 8.2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	23 13.5 %
<b>\$5,000,001 to (10,000,000)</b>	1 2.4 %	2 3.2 %	3 6.1 %	0 0 %	1 100 %	0 0 %	0 0 %	0 0 %	1 33.3 %	1 25 %	9 5.3 %
<b>Over \$10 million</b>	1 2.4 %	2 3.2 %	2 4.1 %	0 0 %	0 0 %	1 20 %	0 0 %	0 0 %	1 33.3 %	2 50 %	9 5.3 %
<b>Don't Know</b>	0 0 %	1 1.6 %	1 2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 33.3 %	0 0 %	3 1.8 %
<b>Not applicable</b>	3 7.3 %	9 14.5 %	7 14.3 %	1 33.3 %	0 0 %	2 40 %	0 0 %	1 100 %	0 0 %	0 0 %	23 13.5 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 9

<b>Since July 1, 2013, in which roles has your business had contracts with either private or public sector organizations?</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Prime Contractor and Subcontractor</b>	23 56.1 %	30 48.4 %	20 40.8 %	1 33.3 %	1 100 %	2 40 %	1 100 %	0 0 %	3 100 %	2 50 %	83 48.8 %
<b>Prime Contractor only</b>	7 17.1 %	6 9.7 %	10 20.4 %	0 0 %	0 0 %	0 0 %	0 0 %	1 100 %	0 0 %	2 50 %	26 15.3 %
<b>Subcontractor only</b>	3 7.3 %	19 30.6 %	13 26.5 %	2 66.7 %	0 0 %	2 40 %	0 0 %	0 0 %	0 0 %	0 0 %	39 22.9 %
<b>Neither</b>	8 19.5 %	7 11.3 %	6 12.2 %	0 0 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	0 0 %	22 12.9 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %



Table 10

<i>On average, what is the number of employees and regular independent contractors (including full-time and part-time staff) your company keeps on payroll? (Number of Employees)</i>	<i>Owners' Minority Status</i>										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>None</b>	2 4.9 %	5 8.1 %	4 8.2 %	0 0 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	0 0 %	12 7.1 %
<b>1-10</b>	17 41.5 %	32 51.6 %	30 61.2 %	1 33.3 %	0 0 %	3 60 %	1 100 %	0 0 %	0 0 %	0 0 %	84 49.4 %
<b>11-30</b>	13 31.7 %	12 19.4 %	7 14.3 %	1 33.3 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	0 0 %	34 20 %
<b>31-50</b>	3 7.3 %	7 11.3 %	4 8.2 %	1 33.3 %	0 0 %	0 0 %	0 0 %	1 100 %	0 0 %	0 0 %	16 9.4 %
<b>51-75</b>	1 2.4 %	1 1.6 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	2 1.2 %
<b>76-100</b>	1 2.4 %	3 4.8 %	2 4.1 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 25 %	7 4.1 %
<b>101-300</b>	0 0 %	2 3.2 %	2 4.1 %	0 0 %	1 100 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	5 2.9 %
<b>Over 300</b>	4 9.8 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	3 100 %	3 75 %	10 5.9 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 11

<i>What is the highest level of education completed by the owner of your company? Would you say:</i>	<i>Owners' Minority Status</i>										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Some High School</b>	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	0 0 %	1 0.6 %
<b>High School graduate</b>	2 4.9 %	3 4.8 %	2 4.1 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	7 4.1 %
<b>Some College</b>	5 12.2 %	8 12.9 %	6 12.2 %	1 33.3 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	0 0 %	21 12.4 %
<b>College</b>	20	28	19	1	0	2	1	0	1	1	73



<b>\$750,000</b>	4.9 %	9.7 %	4.1 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	5.9 %
<b>\$750,000 - \$1,000,000</b>	1 2.4 %	5 8.1 %	7 14.3 %	0 0 %	0 0 %	0 0 %	0 0 %	1 100 %	0 0 %	0 0 %	14 8.3 %
<b>\$1,000,001 - \$1,320,000</b>	3 7.3 %	5 8.1 %	1 2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	9 5.3 %
<b>\$1,320,001 - \$1,500,000</b>	2 4.9 %	2 3.2 %	3 6.1 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	7 4.1 %
<b>\$1,500,001 - \$5,000,000</b>	8 19.5 %	12 19.4 %	4 8.2 %	2 66.7 %	0 0 %	1 25 %	0 0 %	0 0 %	1 33.3 %	0 0 %	28 16.6 %
<b>\$5,000,001 to \$10,000,000</b>	3 7.3 %	4 6.5 %	3 6.1 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 25 %	11 6.5 %
<b>Over \$10 million</b>	8 19.5 %	5 8.1 %	1 2 %	0 0 %	1 100 %	0 0 %	0 0 %	0 0 %	2 66.7 %	3 75 %	20 11.8 %
<b>Don't Know</b>	2 4.9 %	1 1.6 %	0 0 %	0 0 %	0 0 %	1 25 %	0 0 %	0 0 %	0 0 %	0 0 %	4 2.4 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	4 100 %	1 100 %	1 100 %	3 100 %	4 100 %	169 100 %

Table 14

<b>Is your business qualified to do business with Nashville International Airport?</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Yes</b>	38 92.7 %	57 91.9 %	45 91.8 %	3 100 %	1 100 %	4 80 %	1 100 %	0 0 %	3 100 %	4 100 %	156 91.8 %
<b>No</b>	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %
<b>Not sure</b>	3 7.3 %	5 8.1 %	4 8.2 %	0 0 %	0 0 %	1 20 %	0 0 %	1 100 %	0 0 %	0 0 %	14 8.2 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 15

<b>Is your company registered to do business with Nashville International Airport?</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Yes</b>	34 82.9 %	48 77.4 %	38 77.6 %	3 100 %	1 100 %	3 60 %	1 100 %	1 100 %	3 100 %	4 100 %	136 80 %
<b>No</b>	7 17.1 %	14 22.6 %	11 22.4 %	0 0 %	0 0 %	2 40 %	0 0 %	0 0 %	0 0 %	0 0 %	34 20 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 16

<b>Is your company registered to do business with any other government entity (including but not limited to: State of Tennessee or any City, County, or other public agency in Tennessee)?</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Yes</b>	35 85.4 %	49 79 %	47 95.9 %	2 66.7 %	1 100 %	4 80 %	1 100 %	1 100 %	2 66.7 %	4 100 %	146 85.9 %
<b>No</b>	6 14.6 %	13 21 %	2 4.1 %	1 33.3 %	0 0 %	1 20 %	0 0 %	0 0 %	1 33.3 %	0 0 %	24 14.1 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 17

<b>Why is your company not registered to do business with Nashville International Airport? Indicate all that apply. Do not know how to register?</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	5 83.3 %	9 64.3 %	9 81.8 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	23 69.7 %
<b>Selected</b>	1 16.7 %	5 35.7 %	2 18.2 %	0 0 %	0 0 %	2 100 %	0 0 %	0 0 %	0 0 %	0 0 %	10 30.3 %
<b>Total</b>	6 100 %	14 100 %	11 100 %	0 100 %	0 100 %	2 100 %	0 100 %	0 100 %	0 100 %	0 100 %	33 100 %

Table 18

<i>Did not know there was a registry?</i>	<i>Owners' Minority Status</i>										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	4 66.7 %	6 42.9 %	7 63.6 %	0 0 %	0 0 %	2 100 %	0 0 %	0 0 %	0 0 %	0 0 %	19 57.6 %
<b>Selected</b>	2 33.3 %	8 57.1 %	4 36.4 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	14 42.4 %
<b>Total</b>	6 100 %	14 100 %	11 100 %	0 100 %	0 100 %	2 100 %	0 100 %	0 100 %	0 100 %	0 100 %	33 100 %

Table 19

<i>Do not see any benefit in registering?</i>	<i>Owners' Minority Status</i>										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	4 66.7 %	14 100 %	10 90.9 %	0 0 %	0 0 %	2 100 %	0 0 %	0 0 %	0 0 %	0 0 %	30 90.9 %
<b>Selected</b>	2 33.3 %	0 0 %	1 9.1 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	3 9.1 %
<b>Total</b>	6 100 %	14 100 %	11 100 %	0 100 %	0 100 %	2 100 %	0 100 %	0 100 %	0 100 %	0 100 %	33 100 %

Table 20

<i>Do not want to do business with government?</i>	<i>Owners' Minority Status</i>										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	6 100 %	14 100 %	11 100 %	0 0 %	0 0 %	2 100 %	0 0 %	0 0 %	0 0 %	0 0 %	33 100 %
<b>Selected</b>	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %
<b>Total</b>	6 100 %	14 100 %	11 100 %	0 100 %	0 100 %	2 100 %	0 100 %	0 100 %	0 100 %	0 100 %	33 100 %

Table 21

<i>Do not want to do business with Nashville International Airport?</i>	Owners' Minority Status										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	6 100 %	14 100 %	11 100 %	0 0 %	0 0 %	2 100 %	0 0 %	0 0 %	0 0 %	0 0 %	33 100 %
<b>Selected</b>	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %
<i>Total</i>	6 100 %	14 100 %	11 100 %	0 100 %	0 100 %	2 100 %	0 100 %	0 100 %	0 100 %	0 100 %	33 100 %

Table 22

<i>Do not see opportunities in my field of work?</i>	Owners' Minority Status										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	6 100 %	14 100 %	10 90.9 %	0 0 %	0 0 %	2 100 %	0 0 %	0 0 %	0 0 %	0 0 %	32 97 %
<b>Selected</b>	0 0 %	0 0 %	1 9.1 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 3 %
<i>Total</i>	6 100 %	14 100 %	11 100 %	0 100 %	0 100 %	2 100 %	0 100 %	0 100 %	0 100 %	0 100 %	33 100 %

Table 23

<i>Do not believe firm would be awarded contract?</i>	Owners' Minority Status										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	6 100 %	14 100 %	7 63.6 %	0 0 %	0 0 %	2 100 %	0 0 %	0 0 %	0 0 %	0 0 %	29 87.9 %
<b>Selected</b>	0 0 %	0 0 %	4 36.4 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	4 12.1 %
<i>Total</i>	6 100 %	14 100 %	11 100 %	0 100 %	0 100 %	2 100 %	0 100 %	0 100 %	0 100 %	0 100 %	33 100 %

<b>Other, please specify</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	4 66.7 %	11 78.6 %	9 81.8 %	0 0 %	0 0 %	2 100 %	0 0 %	0 0 %	0 0 %	0 0 %	26 78.8 %
<b>Selected</b>	2 33.3 %	3 21.4 %	2 18.2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	7 21.2 %
<b>Total</b>	6 100 %	14 100 %	11 100 %	0 100 %	0 100 %	2 100 %	0 100 %	0 100 %	0 100 %	0 100 %	33 100 %

<b>From July 1, 2013 through June 30, 2018, how many times has your company submitted bids or proposals for projects as prime contractor on: Nashville International Airport Public Projects</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>None</b>	16 39 %	45 72.6 %	32 65.3 %	0 0 %	0 0 %	5 100 %	1 100 %	0 0 %	0 0 %	0 0 %	99 58.2 %
<b>1-10</b>	17 41.5 %	12 19.4 %	12 24.5 %	1 33.3 %	1 100 %	0 0 %	0 0 %	0 0 %	3 100 %	3 75 %	49 28.8 %
<b>11-25</b>	1 2.4 %	1 1.6 %	1 2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	3 1.8 %
<b>26-50</b>	2 4.9 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	2 1.2 %
<b>51-100</b>	1 2.4 %	0 0 %	1 2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	2 1.2 %
<b>Over 100</b>	0 0 %	0 0 %	1 2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 0.6 %
<b>Don't Know/NA</b>	4 9.8 %	4 6.5 %	2 4.1 %	2 66.7 %	0 0 %	0 0 %	0 0 %	1 100 %	0 0 %	1 25 %	14 8.2 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Private Sector Projects	Owners' Minority Status										Total
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
None	8 19.5 %	24 38.7 %	13 26.5 %	0 0 %	1 100 %	3 60 %	0 0 %	0 0 %	1 33.3 %	1 25 %	51 30 %
1-10	7 17.1 %	11 17.7 %	20 40.8 %	1 33.3 %	0 0 %	1 20 %	1 100 %	0 0 %	0 0 %	1 25 %	42 24.7 %
11-25	3 7.3 %	6 9.7 %	7 14.3 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	16 9.4 %
26-50	4 9.8 %	2 3.2 %	4 8.2 %	0 0 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	0 0 %	11 6.5 %
51-100	4 9.8 %	1 1.6 %	1 2.0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	6 3.5 %
Over 100	9 22 %	8 12.9 %	1 2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 33.3 %	2 50 %	21 12.4 %
Don't Know/NA	6 14.6 %	10 16.1 %	3 6.1 %	2 66.7 %	0 0 %	0 0 %	0 0 %	1 100 %	1 33.3 %	0 0 %	23 13.5 %
Total	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Other Public Sector (non-Nashville International Airport Projects)	Owners' Minority Status										Total
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
None	9 22 %	26 41.9 %	19 38.8 %	1 33.3 %	0 0 %	3 60 %	0 0 %	0 0 %	1 33.3 %	1 25 %	60 35.3 %
1-10	12 29.3 %	14 22.6 %	18 36.7 %	0 0 %	1 100 %	0 0 %	1 100 %	1 100 %	0 0 %	1 25 %	48 28.2 %
11-25	4 9.8 %	4 6.5 %	3 6.1 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	11 6.5 %
26-50	2 4.9 %	2 3.2 %	3 6.1 %	0 0 %	0 0 %	2 40 %	0 0 %	0 0 %	0 0 %	0 0 %	9 5.3 %
51-100	0 0 %	6 9.7 %	1 2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	7 4.1 %
Over 100	8 19.5 %	2 3.2 %	2 4.1 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 33.3 %	2 50 %	15 8.8 %
Don't Know/NA	6 14.6 %	8 12.9 %	3 6.1 %	2 66.7 %	0 0 %	0 0 %	0 0 %	0 0 %	1 33.3 %	0 0 %	20 11.8 %
Total	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %



Table 28

From July 1, 2013 through June 30, 2018, how many times has your company been awarded contracts to perform as a prime contractor: Nashville International Airport Public Projects	Owners' Minority Status										Total
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
None	20 48.8 %	42 67.7 %	35 71.4 %	0 0 %	0 0 %	5 100 %	1 100 %	0 0 %	0 0 %	0 0 %	103 60.6 %
1-10	12 29.3 %	13 21 %	8 16.3 %	1 33.3 %	1 100 %	0 0 %	0 0 %	0 0 %	3 100 %	3 75 %	41 24.1 %
11-25	2 4.9 %	0 0 %	1 2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	3 1.8 %
26-50	0 0 %	0 0 %	1 2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 0.6 %
51-100	2 4.9 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	2 1.2 %
Over 100	0 0 %	1 1.6 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 0.6 %
Don't Know/NA	5 12.2 %	6 9.7 %	4 8.2 %	2 66.7 %	0 0 %	0 0 %	0 0 %	1 100 %	0 0 %	1 25 %	19 11.2 %
Total	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 29

Private Sector Projects	Owners' Minority Status										Total
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
None	9 22 %	20 32.3 %	22 44.9 %	0 0 %	1 100 %	3 60 %	0 0 %	0 0 %	1 33.3 %	1 25 %	57 33.5 %
1-10	6 14.6 %	17 27.4 %	17 34.7 %	1 33.3 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	1 25 %	43 25.3 %
11-25	4 9.8 %	4 6.5 %	4 8.2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	12 7.1 %
26-50	5 12.2 %	1 1.6 %	0 0 %	0 0 %	0 0 %	0 0 %	1 100 %	0 0 %	0 0 %	0 0 %	7 4.1 %
51-100	4 9.8 %	3 4.8 %	1 2 %	0 0 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	0 0 %	9 5.3 %
Over 100	6 14.6 %	6 9.7 %	2 4.1 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 33.3 %	1 25 %	16 9.4 %
Don't Know/NA	7 17.1 %	11 17.7 %	3 6.1 %	2 66.7 %	0 0 %	0 0 %	0 0 %	1 100 %	1 33.3 %	1 25 %	26 15.3 %
Total	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 30

<b>Other Public Sector (non-Nashville International Airport Projects)</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>None</b>	11 26.8 %	24 38.7 %	26 53.1 %	1 33.3 %	0 0 %	3 60 %	0 0 %	0 0 %	1 33.3 %	1 25 %	67 39.4 %
<b>1-10</b>	11 26.8 %	17 27.4 %	12 24.5 %	0 0 %	1 100 %	1 20 %	0 0 %	1 100 %	0 0 %	1 25 %	44 25.9 %
<b>11-25</b>	3 7.3 %	2 3.2 %	3 6.1 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	8 4.7 %
<b>26-50</b>	3 7.3 %	3 4.8 %	3 6.1 %	0 0 %	0 0 %	1 20 %	1 100 %	0 0 %	0 0 %	0 0 %	11 6.5 %
<b>51-100</b>	2 4.9 %	2 3.2 %	1 2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	5 2.9 %
<b>Over 100</b>	5 12.2 %	3 4.8 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 33.3 %	0 0 %	9 5.3 %
<b>Don't Know/NA</b>	6 14.6 %	11 17.7 %	4 8.2 %	2 66.7 %	0 0 %	0 0 %	0 0 %	0 0 %	1 33.3 %	2 50 %	26 15.3 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 31

<b>Approximately how many times did you serve as a subcontractor on a Nashville International Airport project from July 1, 2013 through June 30, 2018?</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>None</b>	25 61 %	39 62.9 %	39 79.6 %	1 33.3 %	1 100 %	4 80 %	1 100 %	1 100 %	3 100 %	0 0 %	114 67.1 %
<b>1-10</b>	10 24.4 %	18 29 %	8 16.3 %	2 66.7 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	1 25 %	40 23.5 %
<b>11-25</b>	2 4.9 %	1 1.6 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	3 1.8 %
<b>26-50</b>	1 2.4 %	1 1.6 %	1 2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	3 1.8 %
<b>51-100</b>	1 2.4 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 0.6 %
<b>Over 100</b>	0 0 %	1 1.6 %	1 2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	2 1.2 %
<b>Don't Know</b>	2 4.9 %	2 3.2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	3 75 %	7 4.1 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 32

<b>The following is a list of things that may prevent companies from bidding or obtaining work on a project. In your experience, have any of the following been a barrier to your firm obtaining work on projects for Nashville International Airport? (check all that apply) Pre-qualification requirements</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	39 95.1 %	58 93.5 %	41 83.7 %	2 66.7 %	1 100 %	4 80 %	0 0 %	1 100 %	3 100 %	4 100 %	153 90 %
<b>Selected</b>	2 4.9 %	4 6.5 %	8 16.3 %	1 33.3 %	0 0 %	1 20 %	1 100 %	0 0 %	0 0 %	0 0 %	17 10 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 33

<b>Performance bond requirements</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	41 100 %	58 93.5 %	40 81.6 %	2 66.7 %	1 100 %	4 80 %	0 0 %	1 100 %	3 100 %	4 100 %	154 90.6 %
<b>Selected</b>	0 0 %	4 6.5 %	9 18.4 %	1 33.3 %	0 0 %	1 20 %	1 100 %	0 0 %	0 0 %	0 0 %	16 9.4 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 34

<b>Excessive paperwork</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	39 95.1 %	56 90.3 %	44 89.8 %	3 100 %	1 100 %	4 80 %	1 100 %	1 100 %	3 100 %	4 100 %	156 91.8 %
<b>Selected</b>	2 4.9 %	6 9.7 %	5 10.2 %	0 0 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	0 0 %	14 8.2 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 35

<b>Bid bond requirements</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	40 97.6 %	60 96.8 %	41 83.7 %	2 66.7 %	1 100 %	3 60 %	1 100 %	1 100 %	3 100 %	4 100 %	156 91.8 %
<b>Selected</b>	1 2.4 %	2 3.2 %	8 16.3 %	1 33.3 %	0 0 %	2 40 %	0 0 %	0 0 %	0 0 %	0 0 %	14 8.2 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 36

<b>Financing</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	41 100 %	60 96.8 %	39 79.6 %	3 100 %	1 100 %	3 60 %	0 0 %	1 100 %	3 100 %	4 100 %	155 91.2 %
<b>Selected</b>	0 0 %	2 3.2 %	10 20.4 %	0 0 %	0 0 %	2 40 %	1 100 %	0 0 %	0 0 %	0 0 %	15 8.8 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 37

<b>Insurance requirements</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	41 100 %	59 95.2 %	45 91.8 %	3 100 %	1 100 %	4 80 %	1 100 %	1 100 %	3 100 %	4 100 %	162 95.3 %
<b>Selected</b>	0 0 %	3 4.8 %	4 8.2 %	0 0 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	0 0 %	8 4.7 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 38

<b>Bid specifications</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	38 92.7 %	58 93.5 %	41 83.7 %	2 66.7 %	1 100 %	3 60 %	1 100 %	1 100 %	3 100 %	4 100 %	152 89.4 %
<b>Selected</b>	3 7.3 %	4 6.5 %	8 16.3 %	1 33.3 %	0 0 %	2 40 %	0 0 %	0 0 %	0 0 %	0 0 %	18 10.6 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 39

<b>Lack of access to competitive supplier pricing</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	40 97.6 %	60 96.8 %	39 79.6 %	3 100 %	1 100 %	4 80 %	1 100 %	1 100 %	3 100 %	4 100 %	156 91.8 %
<b>Selected</b>	1 2.4 %	2 3.2 %	10 20.4 %	0 0 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	0 0 %	14 8.2 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

<i>Limited time given to prepare bid package or quote</i>	<i>Owners' Minority Status</i>										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	40 97.6 %	56 90.3 %	41 83.7 %	2 66.7 %	1 100 %	4 80 %	1 100 %	1 100 %	3 100 %	4 100 %	153 90 %
<b>Selected</b>	1 2.4 %	6 9.7 %	8 16.3 %	1 33.3 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	0 0 %	17 10 %
<i>Total</i>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

<i>Limited knowledge of purchasing /contracting policies and procedures</i>	<i>Owners' Minority Status</i>										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	38 92.7 %	54 87.1 %	34 69.4 %	2 66.7 %	1 100 %	3 60 %	1 100 %	0 0 %	3 100 %	4 100 %	140 82.4 %
<b>Selected</b>	3 7.3 %	8 12.9 %	15 30.6 %	1 33.3 %	0 0 %	2 40 %	0 0 %	1 100 %	0 0 %	0 0 %	30 17.6 %
<i>Total</i>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

<i>Language Barriers</i>	<i>Owners' Minority Status</i>										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	4 80 %	1 100 %	1 100 %	3 100 %	4 100 %	169 99.4 %
<b>Selected</b>	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	0 0 %	1 0.6 %
<i>Total</i>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 43

<b>Lack of experience</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	41 100 %	61 98.4 %	45 91.8 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	165 97.1 %
<b>Selected</b>	0 0 %	1 1.6 %	4 8.2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	5 2.9 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 44

<b>Lack of personnel</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	39 95.1 %	59 95.2 %	47 95.9 %	3 100 %	1 100 %	3 60 %	1 100 %	1 100 %	3 100 %	4 100 %	161 94.7 %
<b>Selected</b>	2 4.9 %	3 4.8 %	2 4.1 %	0 0 %	0 0 %	2 40 %	0 0 %	0 0 %	0 0 %	0 0 %	9 5.3 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 45

<b>Contract too large</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	39 95.1 %	58 93.5 %	44 89.8 %	3 100 %	1 100 %	3 60 %	0 0 %	1 100 %	3 100 %	4 100 %	156 91.8 %
<b>Selected</b>	2 4.9 %	4 6.5 %	5 10.2 %	0 0 %	0 0 %	2 40 %	1 100 %	0 0 %	0 0 %	0 0 %	14 8.2 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 46

<b>Contract too expensive to bid</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	41 100 %	61 98.4 %	45 91.8 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	165 97.1 %
<b>Selected</b>	0 0 %	1 1.6 %	4 8.2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	5 2.9 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 47

<b>Informal networks</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	41 100 %	59 95.2 %	46 93.9 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	164 96.5 %
<b>Selected</b>	0 0 %	3 4.8 %	3 6.1 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	6 3.5 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 48

<b>Selection process</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	37 90.2 %	56 90.3 %	46 93.9 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	157 92.4 %
<b>Selected</b>	4 9.8 %	6 9.7 %	3 6.1 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	13 7.6 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %



Table 49

<b>Not certified</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	38 92.7 %	59 95.2 %	46 93.9 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	161 94.7 %
<b>Selected</b>	3 7.3 %	3 4.8 %	3 6.1 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	9 5.3 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 50

<b>Unfair competition with large firms</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	36 87.8 %	53 85.5 %	33 67.3 %	3 100 %	1 100 %	4 80 %	0 0 %	1 100 %	3 100 %	4 100 %	138 81.2 %
<b>Selected</b>	5 12.2 %	9 14.5 %	16 32.7 %	0 0 %	0 0 %	1 20 %	1 100 %	0 0 %	0 0 %	0 0 %	32 18.8 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 51

<b>None of the above</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	15 36.6 %	27 43.5 %	33 67.3 %	2 66.7 %	0 0 %	3 60 %	1 100 %	1 100 %	0 0 %	0 0 %	82 48.2 %
<b>Selected</b>	26 63.4 %	35 56.5 %	16 32.7 %	1 33.3 %	1 100 %	2 40 %	0 0 %	0 0 %	3 100 %	4 100 %	88 51.8 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 52

What is the amount of time that it typically takes to receive payment from Nashville International Airport for your services on Nashville International Airport projects?	Owners' Minority Status										Total
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
Less than 30 days	12 29.3 %	8 12.9 %	7 14.3 %	2 66.7 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 25 %	30 17.6 %
30-60 days	15 36.6 %	13 21 %	7 14.3 %	0 0 %	0 0 %	1 20 %	0 0 %	0 0 %	1 33.3 %	2 50 %	39 22.9 %
60-90 days	1 2.4 %	4 6.5 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 33.3 %	0 0 %	6 3.5 %
90-120 days	0 0 %	2 3.2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	2 1.2 %
Over 120 days	0 0 %	0 0 %	0 0 %	1 33.3 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 0.6 %
Don't Know/NA	13 31.7 %	35 56.5 %	35 71.4 %	0 0 %	1 100 %	4 80 %	1 100 %	1 100 %	1 33.3 %	1 25 %	92 54.1 %
Total	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 53

Is your company a certified Small, Minority, Woman, Disadvantaged Business Enterprise or Airport Concession Disadvantaged Business Enterprise? (collectively, "S/M/W/DBE/ACDBE/ACDBE")	Owners' Minority Status										Total
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
Yes	19 46.3 %	38 61.3 %	41 83.7 %	3 100 %	1 100 %	4 80 %	1 100 %	1 100 %	1 33.3 %	1 0 %	64 66.7 %
No	22 53.7 %	24 38.7 %	8 16.3 %	0 0 %	0 0 %	1 20 %	0 0 %	0 0 %	2 66.7 %	4 100 %	33 33.3 %
Total	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	97 100 %

Table 54

<b>What is your certification? (Indicate all that apply) MBE (Minority Business Enterprise)</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Yes</b>	0 0 %	6 15.8 %	39 95.1 %	3 100 %	0 0 %	3 75 %	1 100 %	1 100 %	1 100 %	0 0 %	54 49.5 %
<b>No</b>	18 94.7 %	27 71.1 %	2 4.9 %	0 0 %	0 0 %	1 25 %	0 0 %	0 0 %	0 0 %	0 0 %	48 44 %
<b>N/A</b>	1 5.3 %	5 13.2 %	0 0 %	0 0 %	1 100 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	7 6.4 %
<b>Total</b>	19 100 %	38 100 %	41 100 %	3 100 %	1 100 %	4 100 %	1 100 %	1 100 %	1 100 %	0 100 %	109 100 %

Table 55

<b>WBE (Women Business Enterprise)</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Yes</b>	0 0 %	33 86.8 %	13 31.7 %	1 33.3 %	0 0 %	1 25 %	0 0 %	1 100 %	1 100 %	0 0 %	50 45.9 %
<b>No</b>	18 94.7 %	5 13.2 %	18 43.9 %	2 66.7 %	0 0 %	2 50 %	0 0 %	0 0 %	0 0 %	0 0 %	45 41.3 %
<b>N/A</b>	1 5.3 %	0 0 %	10 24.4 %	0 0 %	1 100 %	1 25 %	1 100 %	0 0 %	0 0 %	0 0 %	14 12.8 %
<b>Total</b>	19 100 %	38 100 %	41 100 %	3 100 %	1 100 %	4 100 %	1 100 %	1 100 %	1 100 %	0 100 %	109 100 %

Table 56

<b>DBE (Disadvantaged Business Enterprise)</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Yes</b>	0 0 %	22 57.9 %	31 75.6 %	3 100 %	0 0 %	1 25 %	0 0 %	0 0 %	0 0 %	0 0 %	57 52.3 %
<b>No</b>	18 94.7 %	12 31.6 %	7 17.1 %	0 0 %	0 0 %	3 75 %	0 0 %	1 100 %	0 0 %	0 0 %	41 37.6 %
<b>N/A</b>	1 5.3 %	4 10.5 %	3 7.3 %	0 0 %	1 100 %	0 0 %	1 100 %	0 0 %	1 100 %	0 0 %	11 10.1 %
<b>Total</b>	19 100 %	38 100 %	41 100 %	3 100 %	1 100 %	4 100 %	1 100 %	1 100 %	1 100 %	0 100 %	109 100 %

Table 57

<b>SBE (Small Business Enterprise)</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Yes</b>	18 94.7 %	24 63.2 %	24 58.5 %	2 66.7 %	0 0 %	1 25 %	0 0 %	1 100 %	0 0 %	0 0 %	70 64.2 %
<b>No</b>	1 5.3 %	11 28.9 %	15 36.6 %	1 33.3 %	0 0 %	2 50 %	0 0 %	0 0 %	0 0 %	0 0 %	30 27.5 %
<b>N/A</b>	0 0 %	3 7.9 %	2 4.9 %	0 0 %	1 100 %	1 25 %	1 100 %	0 0 %	1 100 %	0 0 %	9 8.3 %
<b>Total</b>	19 100 %	38 100 %	41 100 %	3 100 %	1 100 %	4 100 %	1 100 %	1 100 %	1 100 %	0 100 %	109 100 %

Table 58

<b>ACDBE (Airport Concessions Disadvantaged Business Enterprise)</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Yes</b>	0 0 %	7 18.4 %	5 12.2 %	1 33.3 %	1 100 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	14 12.8 %
<b>No</b>	18 94.7 %	27 71.1 %	26 63.4 %	1 33.3 %	0 0 %	2 50 %	0 0 %	1 100 %	0 0 %	0 0 %	75 68.8 %
<b>N/A</b>	1 5.3 %	4 10.5 %	10 24.4 %	1 33.3 %	0 0 %	2 50 %	1 100 %	0 0 %	1 100 %	0 0 %	20 18.3 %
<b>Total</b>	19 100 %	38 100 %	41 100 %	3 100 %	1 100 %	4 100 %	1 100 %	1 100 %	1 100 %	0 100 %	109 100 %

Table 59

<b>Why is your company not certified as a Small, Minority, Woman, Disadvantaged Business Enterprise, or Airport Concession Disadvantaged Business Enterprise? I do not understand the certification process</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	16 80 %	14 60.9 %	6 75 %	0 0 %	0 0 %	1 100 %	0 0 %	0 0 %	1 100 %	4 100 %	42 73.7 %
<b>Selected</b>	4 20 %	9 39.1 %	2 25 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	15 26.3 %
<b>Total</b>	20 100 %	23 100 %	8 100 %	0 100 %	0 100 %	1 100 %	0 100 %	0 100 %	1 100 %	4 100 %	57 100 %

Table 60

<b>We do not meet one or more of the requirements for certification</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	8 40 %	19 82.6 %	7 87.5 %	0 0 %	0 0 %	1 100 %	0 0 %	0 0 %	0 0 %	1 25 %	36 63.2 %
<b>Selected</b>	12 60 %	4 17.4 %	1 12.5 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 100 %	3 75 %	21 36.8 %
<b>Total</b>	20 100 %	23 100 %	8 100 %	0 100 %	0 100 %	1 100 %	0 100 %	0 100 %	1 100 %	4 100 %	57 100 %

Table 61

<b>Certification is too expensive</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	19 95 %	22 95.7 %	8 100 %	0 0 %	0 0 %	1 100 %	0 0 %	0 0 %	1 100 %	4 100 %	55 96.5 %
<b>Selected</b>	1 5 %	1 4.3 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	2 3.5 %
<b>Total</b>	20 100 %	23 100 %	8 100 %	0 100 %	0 100 %	1 100 %	0 100 %	0 100 %	1 100 %	4 100 %	57 100 %

Table 62

<b>I do not want Nashville International Airport to have information about my company</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	20 100 %	23 100 %	8 100 %	0 0 %	0 0 %	1 100 %	0 0 %	0 0 %	1 100 %	4 100 %	57 100 %
<b>Selected</b>	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %
<b>Total</b>	20 100 %	23 100 %	8 100 %	0 100 %	0 100 %	1 100 %	0 100 %	0 100 %	1 100 %	4 100 %	57 100 %

<i>I have not had time to get certified/the process is too time-consuming</i>	Owners' Minority Status										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	17 85 %	17 73.9 %	5 62.5 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 100 %	4 100 %	44 77.2 %
<b>Selected</b>	3 15 %	6 26.1 %	3 37.5 %	0 0 %	0 0 %	1 100 %	0 0 %	0 0 %	0 0 %	0 0 %	13 22.8 %
<b>Total</b>	20 100 %	23 100 %	8 100 %	0 100 %	0 100 %	1 100 %	0 100 %	0 100 %	1 100 %	4 100 %	57 100 %

<i>Certification does not benefit and/or will negatively impact my company</i>	Owners' Minority Status										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	19 95 %	22 95.7 %	7 87.5 %	0 0 %	0 0 %	1 100 %	0 0 %	0 0 %	1 100 %	4 100 %	54 94.7 %
<b>Selected</b>	1 5 %	1 4.3 %	1 12.5 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	3 5.3 %
<b>Total</b>	20 100 %	23 100 %	8 100 %	0 100 %	0 100 %	1 100 %	0 100 %	0 100 %	1 100 %	4 100 %	57 100 %

<i>Do not understand how certification can benefit my firm</i>	Owners' Minority Status										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Not Selected</b>	18 90 %	15 65.2 %	6 75 %	0 0 %	0 0 %	1 100 %	0 0 %	0 0 %	1 100 %	3 75 %	44 77.2 %
<b>Selected</b>	2 10 %	8 34.8 %	2 25 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 25 %	13 22.8 %
<b>Total</b>	20 100 %	23 100 %	8 100 %	0 100 %	0 100 %	1 100 %	0 100 %	0 100 %	1 100 %	4 100 %	57 100 %

Table 66

<i>Between July 1, 2013 through June 30, 2018, did your company apply and receive any of the following? Business start-up loan?</i>	<i>Owners' Minority Status</i>										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Never Applied</b>	40 97.6 %	60 96.8 %	44 89.8 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	162 95.3 %
<b>Applied, Never Approved</b>	0 0 %	1 1.6 %	2 4.1 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	3 1.8 %
<b>Applied, Some Approved</b>	0 0 %	0 0 %	3 6.1 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	3 1.8 %
<b>Applied, All Approved</b>	1 2.4 %	1 1.6 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	2 1.2 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 67

<i>Operating capital loan?</i>	<i>Owners' Minority Status</i>										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Never Applied</b>	33 80.5 %	48 77.4 %	37 75.5 %	1 33.3 %	0 0 %	5 100 %	1 100 %	1 100 %	3 100 %	3 75 %	132 77.6 %
<b>Applied, Never Approved</b>	0 0 %	0 0 %	5 10.2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	5 2.9 %
<b>Applied, Some Approved</b>	0 0 %	3 4.8 %	3 6.1 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	6 3.5 %
<b>Applied, All Approved</b>	8 19.5 %	11 17.7 %	4 8.2 %	2 66.7 %	1 100 %	0 0 %	0 0 %	0 0 %	0 0 %	1 25 %	27 15.9 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 68

<b>Equipment loan?</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Never Applied</b>	35 85.4 %	49 79 %	43 87.8 %	1 33.3 %	1 100 %	4 80 %	1 100 %	1 100 %	3 100 %	3 75 %	141 82.9 %
<b>Applied, Never Approved</b>	0 0 %	0 0 %	1 2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 0.6 %
<b>Applied, Some Approved</b>	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %
<b>Applied, All Approved</b>	6 14.6 %	13 21 %	5 10.2 %	2 66.7 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	1 25 %	28 16.5 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 69

<b>Commercial/Professional liability insurance?</b>	<b>Owners' Minority Status</b>											<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other		
<b>Never Applied</b>	9 22 %	13 21 %	15 30.6 %	0 0 %	0 0 %	3 60 %	1 100 %	1 100 %	1 33.3 %	2 50 %	45 26.5 %	
<b>Applied, Never Approved</b>	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	
<b>Applied, Some Approved</b>	0 0 %	0 0 %	1 2 %	0 0 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	0 0 %	2 1.2 %	
<b>Applied, All Approved</b>	32 78 %	49 79 %	33 67.3 %	3 100 %	1 100 %	1 20 %	0 0 %	0 0 %	2 66.7 %	2 50 %	123 72.4 %	
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %	

Table 70

<b>What was the largest commercial loan you received from July 1, 2013 through June 30, 2018?</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>\$50,000 or less</b>	6 14.6 %	4 6.5 %	9 18.4 %	1 33.3 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	20 11.8 %
<b>\$50,001 - \$100,000</b>	0 0 %	5 8.1 %	2 4.1 %	1 33.3 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	8 4.7 %
<b>\$100,001 - \$300,000</b>	5 12.2 %	4 6.5 %	3 6.1 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	12 7.1 %
<b>\$300,001 -</b>	3	3	0	1	0	1	0	0	0	0	8







Table 75

<b>Commercial/Professional liability insurance?</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Insufficient Documentation</b>	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %
<b>Insufficient Business History</b>	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %
<b>Confusion about Process</b>	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %
<b>Credit History</b>	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %
<b>Don't Know</b>	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %
<b>N/A</b>	0 0 %	0 0 %	1 100 %	0 0 %	0 0 %	1 100 %	0 0 %	0 0 %	0 0 %	0 0 %	2 100 %
<b>Total</b>	0 100 %	0 100 %	1 100 %	0 100 %	0 100 %	1 100 %	0 100 %	0 100 %	0 100 %	0 100 %	2 100 %

Table 76

<b>Do you feel as though you experienced discriminatory behavior from the private sector (i.e., non-governmental entities) from July 1, 2013 through June 30, 2018?</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Yes</b>	1 2.4 %	9 14.5 %	20 40.8 %	0 0 %	0 0 %	0 0 %	1 100 %	1 100 %	0 0 %	0 0 %	32 18.8 %
<b>No</b>	36 87.8 %	44 71 %	16 32.7 %	1 33.3 %	1 100 %	2 40 %	0 0 %	0 0 %	3 100 %	3 75 %	106 62.4 %
<b>Don't Know</b>	4 9.8 %	9 14.5 %	13 26.5 %	2 66.7 %	0 0 %	3 60 %	0 0 %	0 0 %	0 0 %	1 25 %	32 18.8 %
<b>Total</b>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 77

<i>From July 1, 2013 through June 30, 2018, how often has your company experienced any racial, gender, or ethnicity discriminatory behavior from Nashville International Airport?</i>	<i>Owners' Minority Status</i>										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
Never	36 87.8 %	51 82.3 %	27 55.1 %	2 66.7 %	1 100 %	3 60 %	1 100 %	1 100 %	3 100 %	3 75 %	128 75.3 %
Seldom	1 2.4 %	1 1.6 %	5 10.2 %	0 0 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	0 0 %	8 4.7 %
Often	0 0 %	1 1.6 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 0.6 %
Very Often	0 0 %	0 0 %	1 2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 0.6 %
Don't Know	4 9.8 %	9 14.5 %	16 32.7 %	1 33.3 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	1 25 %	32 18.8 %
<i>Total</i>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 78

<i>Do you believe there is an informal network of prime and subcontractors doing business with Nashville International Airport that monopolize the public contracting process?</i>	<i>Owners' Minority Status</i>										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
Yes	5 12.2 %	25 40.3 %	37 75.5 %	1 33.3 %	0 0 %	2 40 %	1 100 %	1 100 %	1 33.3 %	0 0 %	73 42.9 %
No	36 87.8 %	37 59.7 %	12 24.5 %	2 66.7 %	1 100 %	3 60 %	0 0 %	0 0 %	2 66.7 %	4 100 %	97 57.1 %
<i>Total</i>	41 100 %	62 100 %	49 100 %	3 100 %	1 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	170 100 %

Table 79

<b>Please tell us if you strongly agree, agree, neither agree or disagree, disagree or strongly disagree with each of the following statements: My company's exclusion from this informal network has prevented us from winning contracts with Nashville International Airport.</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Strongly agree</b>	0 0 %	1 4.2 %	10 27 %	0 0 %	0 0 %	0 0 %	1 100 %	0 0 %	0 0 %	0 0 %	12 16.7 %
<b>Agree</b>	1 20 %	8 33.3 %	5 13.5 %	1 100 %	0 0 %	0 0 %	0 0 %	1 100 %	1 100 %	0 0 %	17 23.6 %
<b>Neither agree or disagree</b>	4 80 %	12 50 %	19 51.4 %	0 0 %	0 0 %	2 100 %	0 0 %	0 0 %	0 0 %	0 0 %	37 51.4 %
<b>Disagree</b>	0 0 %	3 12.5 %	1 2.7 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	4 5.6 %
<b>Strongly disagree</b>	0 0 %	0 0 %	2 5.4 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	2 2.8 %
<b>Total</b>	5 100 %	24 100 %	37 100 %	1 100 %	0 100 %	2 100 %	1 100 %	1 100 %	1 100 %	0 100 %	72 100 %

Table 80

<b>Double standards in qualifications and work performance make it more difficult for minority and women-owned businesses to win bids or contracts.</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Strongly agree</b>	1 2.4 %	2 3.3 %	16 33.3 %	0 0 %	0 0 %	0 0 %	1 100 %	0 0 %	0 0 %	0 0 %	20 12 %
<b>Agree</b>	1 2.4 %	7 11.5 %	18 37.5 %	1 33.3 %	0 0 %	2 40 %	0 0 %	1 100 %	1 33.3 %	0 0 %	31 18.6 %

Neither agree or disagree	19 46.3 %	35 57.4 %	9 18.8 %	1 33.3 %	0 0 %	3 60 %	0 0 %	0 0 %	1 33.3 %	2 50 %	70 41.9 %
Disagree	6 14.6 %	12 19.7 %	3 6.2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 25 %	22 13.2 %
Strongly disagree	14 34.1 %	5 8.2 %	2 4.2 %	1 33.3 %	0 0 %	0 0 %	0 0 %	0 0 %	1 33.3 %	1 25 %	24 14.4 %
<i>Total</i>	41 100 %	61 100 %	48 100 %	3 100 %	0 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	167 100 %

Table 81

<i>Nashville International Airport is generally accommodating to the language needs of its vendor community.</i>	Owners' Minority Status										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
Strongly agree	4 9.8 %	4 6.6 %	5 10.6 %	1 33.3 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 25 %	15 9 %
Agree	10 24.4 %	22 36.1 %	14 29.8 %	0 0 %	0 0 %	2 40 %	1 100 %	0 0 %	2 66.7 %	1 25 %	52 31.3 %
Neither agree or disagree	25 61 %	34 55.7 %	26 55.3 %	2 66.7 %	0 0 %	2 40 %	0 0 %	1 100 %	1 33.3 %	2 50 %	93 56 %
Disagree	1 2.4 %	0 0 %	0 0 %	0 0 %	0 0 %	1 20 %	0 0 %	0 0 %	0 0 %	0 0 %	2 1.2 %
Strongly disagree	1 2.4 %	1 1.6 %	2 4.3 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	4 2.4 %
<i>Total</i>	41 100 %	61 100 %	47 100 %	3 100 %	0 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	166 100 %

Table 82

<i>Sometimes, a prime contractor will contact a minority- or woman-owned business to ask for quotes but never give the proposal sufficient review to consider giving that firm the award.</i>	Owners' Minority Status										<i>Total</i>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
Strongly agree	0 0 %	4 6.7 %	18 36.7 %	0 0 %	0 0 %	1 20 %	1 100 %	1 100 %	0 0 %	0 0 %	25 15 %
Agree	2 4.9 %	17 28.3 %	15 30.6 %	0 0 %	0 0 %	1 20 %	0 0 %	0 0 %	1 33.3 %	0 0 %	36 21.6 %
Neither agree or disagree	31 75.6 %	31 51.7 %	13 26.5 %	3 100 %	0 0 %	3 60 %	0 0 %	0 0 %	0 0 %	2 50 %	83 49.7 %
Disagree	4	6	2	0	0	0	0	0	2	2	16

	9.8 %	10 %	4.1 %	0 %	0 %	0 %	0 %	0 %	66.7 %	50 %	9.6 %
<b>Strongly disagree</b>	4	2	1	0	0	0	0	0	0	0	7
	9.8 %	3.3 %	2 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	4.2 %
<b>Total</b>	41	60	49	3	0	5	1	1	3	4	167
	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %

Table 83

<b>Sometimes, a prime contractor will include a minority or woman subcontractor on a bid to meet participation goals, then drop the company as a subcontractor after winning the award.</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Strongly agree</b>	1 2.4 %	4 6.6 %	16 33.3 %	0 0 %	0 0 %	1 20 %	1 100 %	1 100 %	0 0 %	0 0 %	24 14.4 %
<b>Agree</b>	2 4.9 %	13 21.3 %	12 25 %	1 33.3 %	0 0 %	1 20 %	0 0 %	0 0 %	1 33.3 %	0 0 %	30 18 %
<b>Neither agree or disagree</b>	30 73.2 %	35 57.4 %	17 35.4 %	2 66.7 %	0 0 %	3 60 %	0 0 %	0 0 %	0 0 %	3 75 %	90 53.9 %
<b>Disagree</b>	4 9.8 %	6 9.8 %	3 6.2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 33.3 %	1 25 %	15 9 %
<b>Strongly disagree</b>	4 9.8 %	3 4.9 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 33.3 %	0 0 %	8 4.8 %
<b>Total</b>	41 100 %	61 100 %	48 100 %	3 100 %	0 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	167 100 %

Table 84

<b>In general, S/M/W/DBE/ACDBE's tend to be viewed by Non-S/M/W/DBE/ACDBE businesses as less competent than non-minority male-owned businesses.</b>	<b>Owners' Minority Status</b>										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Strongly agree</b>	0 0 %	3 4.9 %	21 42.9 %	0 0 %	0 0 %	0 0 %	1 100 %	0 0 %	0 0 %	0 0 %	25 14.9 %
<b>Agree</b>	4 9.8 %	13 21.3 %	17 34.7 %	0 0 %	0 0 %	2 40 %	0 0 %	0 0 %	0 0 %	0 0 %	36 21.4 %
<b>Neither agree or disagree</b>	30 73.2 %	35 57.4 %	11 22.4 %	3 100 %	0 0 %	3 60 %	0 0 %	1 100 %	1 33.3 %	2 50 %	86 51.2 %
<b>Disagree</b>	4 9.8 %	8 13.1 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 33.3 %	2 50 %	15 8.9 %
<b>Strongly disagree</b>	3 7.3 %	2 3.3 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 33.3 %	0 0 %	6 3.6 %
<b>Total</b>	41 100 %	61 100 %	49 100 %	3 100 %	0 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	168 100 %

Table 85

<i>I believe that some non-minority prime contractors only utilize S/M/W/DBE/ACDBE companies when required to do so by Nashville International Airport.</i>	Owners' Minority Status										<b>Total</b>
	Non-Minority	Woman	Black	Subcontinent Asian	Asian Pacific Islander	Hispanic	Native American	Bi-Racial or Multi-Racial	Publicly Traded Company	Other	
<b>Strongly agree</b>	4 9.8 %	13 21.7 %	31 63.3 %	1 33.3 %	0 0 %	0 0 %	0 0 %	0 0 %	1 33.3 %	0 0 %	50 29.9 %
<b>Agree</b>	9 22 %	19 31.7 %	10 20.4 %	1 33.3 %	0 0 %	2 40 %	1 100 %	1 100 %	1 33.3 %	3 75 %	47 28.1 %
<b>Neither agree or disagree</b>	22 53.7 %	27 45 %	7 14.3 %	1 33.3 %	0 0 %	3 60 %	0 0 %	0 0 %	0 0 %	1 25 %	61 36.5 %
<b>Disagree</b>	4 9.8 %	1 1.7 %	1 2 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	6 3.6 %
<b>Strongly disagree</b>	2 4.9 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	0 0 %	1 33.3 %	0 0 %	3 1.8 %
<b>Total</b>	41 100 %	60 100 %	49 100 %	3 100 %	0 100 %	5 100 %	1 100 %	1 100 %	3 100 %	4 100 %	167 100 %



APPENDIX I  
CONCESSION UTILIZATION AND  
DISPARITY

## APPENDIX I: Concession Utilization and Disparity

The tables in Appendix I presents the dollar revenue for for all MNAA concessions, broken down by the three concessions categories (Table I-1) and disparity between availability and utilization (Table I-2). Concession revenue includes sub concessionaires and services suppliers. Small dollar suppliers (less than \$15,000 over the study period) were excluded. The utilization data is from B2G. Availability data is based on the 2012 Survey of Business Owners (SBO). The SBO data does not separate minority from nonminority females by ethnic group. Consequently, the Nonminority Female availability is over-stated insofar as the census number includes minority females. However, given the large gap between availability and utilization for Nonminority Female the qualitative conclusions regarding disparity should not change. Black-owned firms were over-utilized in restaurants and retail.

**Table I-1**  
**MNAA Disparity Study**  
**Non Car Rental Concession Revenue, Restaurants, Retail, Services**  
**(Using Revenue Dollars, FY 2014-2019)**

<b>Business Ownership Classification</b>	<b>Restaurants</b>	<b>Retail</b>	<b>Services</b>	<b>TOTAL</b>
	(\$)	(\$)	(\$)	(\$)
Black American	\$36,811,362	\$22,425,514	\$16,288,462	\$75,525,337
Asian American	\$ -	0	\$25,262	\$25,262
Hispanic American	\$ -	\$1,657,129	\$0	\$1,657,129
Native American	\$ -	0	\$ -	\$0
<b>TOTAL MINORITY</b>	<b>\$36,811,362</b>	<b>\$24,082,643</b>	<b>\$16,313,724</b>	<b>\$77,207,728</b>
Nonminority Female	\$105,381	\$64,859	\$803,450	\$973,691
<b>TOTAL M/WBE</b>	<b>\$36,916,743</b>	<b>\$24,147,502</b>	<b>\$17,117,174</b>	<b>\$78,181,419</b>
Non-M/WBE	\$245,137,996	\$141,364,296	\$111,408,193	\$497,910,484
<b>TOTAL FIRMS</b>	<b>\$282,054,739</b>	<b>\$165,511,798</b>	<b>\$128,525,367</b>	<b>\$576,091,903</b>
<b>Business Ownership Classification</b>	<b>Restaurants</b>	<b>Retail</b>	<b>Services</b>	<b>TOTAL</b>
	(%)	(%)	(%)	(%)
Black American	13.05%	13.55%	12.67%	13.11%
Asian American	0.00%	0.00%	0.02%	0.00%
Hispanic American	0.00%	1.00%	0.00%	0.29%
Native American	0.00%	0.00%	0.00%	0.00%
<b>TOTAL MINORITY</b>	<b>13.05%</b>	<b>14.55%</b>	<b>12.69%</b>	<b>13.40%</b>
Nonminority Female	0.04%	0.04%	0.63%	0.17%
<b>TOTAL M/WBE</b>	<b>13.09%</b>	<b>14.59%</b>	<b>13.32%</b>	<b>13.57%</b>
Non-M/WBE	86.91%	85.41%	86.68%	86.43%
<b>TOTAL FIRMS</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

Source: B2G

**Table I-2  
Disparity Indices – Non Car Rental Concession Revenue, Restaurants, Retail, Services**

MNAA Disparity Study

RESTAURANTS					
Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%
Black American	13.05%	8.2%	159.16	Overutilization	
Asian American	0.00%	19.7%	0.00	Underutilization	*
Hispanic American	0.00%	6.9%	0.00	Underutilization	*
Native American	0.00%	0.0%	NA	Underutilization	*
<b>TOTAL MBE</b>	<b>13.05%</b>	<b>34.8%</b>	<b>37.50</b>	<b>Underutilization</b>	<b>*</b>
Nonminority Female	0.04%	30.7%	0.12	Underutilization	*
Non-M/WBE	86.91%	65.2%	133.30	Overutilization	
RETAIL					
Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%
Black American	13.55%	4.9%	276.51	Overutilization	
Asian American	0.00%	4.5%	0.00	Underutilization	*
Hispanic American	1.00%	1.9%	52.70	Underutilization	*
Native American	0.00%	0.9%	0.00	Underutilization	*
<b>TOTAL MBE</b>	<b>14.55%</b>	<b>12.2%</b>	<b>119.27</b>	<b>Overutilization</b>	
Nonminority Female	0.04%	39.5%	0.10	Underutilization	*
Non-M/WBE	85.41%	87.8%	97.28	Underutilization	
SERVICES					
Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%
Black American	12.67%	19.0%	66.70	Underutilization	*
Asian American	0.02%	2.1%	0.94	Underutilization	*
Hispanic American	0.00%	4.2%	0.00	Underutilization	*
Native American	0.00%	0.0%	NA	Underutilization	*
<b>TOTAL MBE</b>	<b>12.69%</b>	<b>25.3%</b>	<b>50.17</b>	<b>Underutilization</b>	<b>*</b>
Nonminority Female	0.63%	15.0%	4.17	Underutilization	*
Non-M/WBE	86.68%	73.3%	118.26	Overutilization	

Source: B2G, Survey of Business Owners 2012

# APPENDIX J

## UTILIZATION, AVAILABILITY AND DISPARITY FOR STATE OF TENNESSEE PROGRAM AREA

## APPENDIX J – Utilization, Availability and Disparity for State of Tennessee Program Area

The tables in Appendix J present Utilization (Tables J-1 through J-4), Availability (Tables J-5 through J-7) and Disparity data (Tables J-8 through J-11) for Metropolitan Nashville Airport Authority (MNA) projects by year over the FY 2014-FY2018 Study Period<sup>1</sup> based on using the State of Tennessee as the Program Area. Total Utilization, the combination of prime and subcontractor utilization, is presented for Construction & Construction-Related Professional Services (Tables J-1, J-2, J-8 & J-9). Prime utilization is presented for Professional Services and Goods and Services as there was no significant reported subcontracting in those areas. The tables in this appendix are based on the same utilization data sources (Payments) and the same availability methodology (master vendor file) as the main body of the report.

There was significant underutilization for all MWBE groups in all procurement categories using the State of Tennessee as the Program Area. The data in this appendix, along with anecdotal information in disparity studies in Memphis and Nashville, supports MNA MWBE program implementation on a state-wide basis.

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<sup>1</sup> Data issues limited the reporting of 2018 data for federal Construction and Construction-Related Services projects.

**Table J-1**  
**Total Utilization (prime + subcontractor)**  
**Construction and Construction Related Services**  
**Non-federal, In the Tennessee Program Area**  
**Distribution of Dollars by Business Ownership and Fiscal Year**  
**(Using Payments, FY 2014-2018)**  
**Metropolitan Nashville Airport Authority Disparity Study**

Business Ownership Classification	2014	2015	2016	2017	2018	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Black American	\$ 276,704	\$ 195,261	\$ 661,834	\$ 189,917	\$ 5,815,294	\$ 7,139,010
Asian American	\$ 2,270	\$ 12,208	\$ 55,915	\$ 7,500	\$ 744,037	\$ 821,930
Hispanic American	\$ -	\$ -	\$ 223,925	\$ 497,763	\$ 1,752,426	\$ 2,474,113
Native American	\$ -	\$ -	\$ -	\$ -	\$ 503,365	\$ 503,365
<b>TOTAL MINORITY</b>	<b>\$ 278,974</b>	<b>\$ 207,468</b>	<b>\$ 941,674</b>	<b>\$ 695,180</b>	<b>\$ 8,815,122</b>	<b>\$ 10,938,418</b>
Nonminority Female	\$ 1,690,682	\$ 1,349,810	\$ 2,776,135	\$ 5,325,793	\$ 7,770,448	\$ 18,912,868
<b>TOTAL M/WBE</b>	<b>\$ 1,969,656</b>	<b>\$ 1,557,278</b>	<b>\$ 3,717,809</b>	<b>\$ 6,020,974</b>	<b>\$ 16,585,570</b>	<b>\$ 29,851,286</b>
NON-M/WBE	\$ 28,730,702	\$ 12,187,481	\$ 20,011,311	\$ 58,012,617	\$ 66,635,963	\$ 185,578,074
<b>TOTAL FIRMS</b>	<b>\$ 30,700,358</b>	<b>\$ 13,744,758</b>	<b>\$ 23,729,119</b>	<b>\$ 64,033,591</b>	<b>\$ 83,221,533</b>	<b>\$ 215,429,360</b>
Business Ownership Classification	2,014	2,015	2,016	2,017	2,018	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
Black American	0.90%	1.42%	2.79%	0.30%	6.99%	3.31%
Asian American	0.01%	0.09%	0.24%	0.01%	0.89%	0.38%
Hispanic American	0.00%	0.00%	0.94%	0.78%	2.11%	1.15%
Native American	0.00%	0.00%	0.00%	0.00%	0.60%	0.23%
<b>TOTAL MINORITY</b>	<b>0.91%</b>	<b>1.51%</b>	<b>3.97%</b>	<b>1.09%</b>	<b>10.59%</b>	<b>5.08%</b>
Nonminority Female	5.51%	9.82%	11.70%	8.32%	9.34%	8.78%
<b>TOTAL M/WBE</b>	<b>6.42%</b>	<b>11.33%</b>	<b>15.67%</b>	<b>9.40%</b>	<b>19.93%</b>	<b>13.86%</b>
NON-M/WBE	93.58%	88.67%	84.33%	90.60%	80.07%	86.14%
<b>TOTAL FIRMS</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

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**Table J-2**  
**Total Utilization (prime + subcontractor)**  
**Construction and Construction Related Services**  
**Federal, In the Tennessee Program Area**  
**Distribution of Dollars by Business Ownership and Fiscal Year**  
**(Using Payments, FY 2014-2017)**  
**Metropolitan Nashville Airport Authority Disparity Study**

Business Ownership Classification	2014	2015	2016	2017	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)
Black American	\$ 6,110	\$ 36,471	\$ 567,039	\$ 177,749	\$ 787,370
Asian American	\$ -	\$ -	\$ 19,544	\$ 60,000	\$ 79,544
Hispanic American	\$ -	\$ -	\$ -	\$ -	\$ -
Native American	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL MINORITY</b>	<b>\$ 6,110</b>	<b>\$ 36,471</b>	<b>\$ 586,583</b>	<b>\$ 237,749</b>	<b>\$ 866,914</b>
Nonminority Female	\$ 37,979	\$ 20,001	\$ 173,713	\$ 177,531	\$ 409,225
<b>TOTAL M/WBE</b>	<b>\$ 44,090</b>	<b>\$ 56,473</b>	<b>\$ 760,296</b>	<b>\$ 415,281</b>	<b>\$ 1,276,139</b>
NON-M/WBE	\$ 21,513,429	\$ 24,056,693	\$ 22,889,969	\$ 12,815,889	\$ 81,275,980
<b>TOTAL FIRMS</b>	<b>\$ 21,557,518</b>	<b>\$ 24,113,165</b>	<b>\$ 23,650,265</b>	<b>\$ 13,231,170</b>	<b>\$ 82,552,119</b>
Business Ownership Classification	2014	2015	2016	2017	TOTAL
	(%)	(%)	(%)	(%)	(%)
Black American	0.03%	0.15%	2.40%	1.34%	0.95%
Asian American	0.00%	0.00%	0.08%	0.45%	0.10%
Hispanic American	0.00%	0.00%	0.00%	0.00%	0.00%
Native American	0.00%	0.00%	0.00%	0.00%	0.00%
<b>TOTAL MINORITY</b>	<b>0.03%</b>	<b>0.15%</b>	<b>2.48%</b>	<b>1.80%</b>	<b>1.05%</b>
Nonminority Female	0.18%	0.08%	0.73%	1.34%	0.50%
<b>TOTAL M/WBE</b>	<b>0.20%</b>	<b>0.23%</b>	<b>3.21%</b>	<b>3.14%</b>	<b>1.55%</b>
NON-M/WBE	99.80%	99.77%	96.79%	96.86%	98.45%
<b>TOTAL FIRMS</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>
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**Table J-3**  
**Prime Utilization**  
**Professional Services**  
**In the Tennessee Program Area**  
**Distribution of Dollars by Business Ownership and Fiscal Year**  
**(Using Payments, FY 2014-2018)**  
**Metropolitan Nashville Airport Authority Disparity Study**

Business Ownership Classification	2014	2015	2016	2017	2018	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Black American	\$ 108,566	\$ 320,989	\$ 199,049	\$ 111,836	\$ 521,826	\$ 1,262,265
Asian American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hispanic American	\$ 110	\$ 5,889	\$ 16,140	\$ 45,143	\$ 58,239	\$ 125,522
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL MINORITY</b>	<b>\$ 108,676</b>	<b>\$ 326,878</b>	<b>\$ 215,190</b>	<b>\$ 156,979</b>	<b>\$ 580,065</b>	<b>\$ 1,387,787</b>
Nonminority Female	\$ 166,783	\$ 175,230	\$ 186,522	\$ 118,042	\$ 501,438	\$ 1,148,014
<b>TOTAL M/WBE</b>	<b>\$ 275,458</b>	<b>\$ 502,108</b>	<b>\$ 401,711</b>	<b>\$ 275,021</b>	<b>\$ 1,081,503</b>	<b>\$ 2,535,801</b>
NON-M/WBE	\$ 42,974,135	\$ 12,466,324	\$ 14,626,966	\$ 14,607,856	\$ 16,331,991	\$ 101,007,272
<b>TOTAL FIRMS</b>	<b>\$ 43,249,593</b>	<b>\$ 12,968,433</b>	<b>\$ 15,028,677</b>	<b>\$ 14,882,877</b>	<b>\$ 17,413,494</b>	<b>\$ 103,543,073</b>
Business Ownership Classification	2014	2015	2016	2017	2018	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
Black American	0.25%	2.48%	1.32%	0.75%	3.00%	1.22%
Asian American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hispanic American	0.00%	0.05%	0.11%	0.30%	0.33%	0.12%
Native American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>TOTAL MINORITY</b>	<b>0.25%</b>	<b>2.52%</b>	<b>1.43%</b>	<b>1.05%</b>	<b>3.33%</b>	<b>1.34%</b>
Nonminority Female	0.39%	1.35%	1.24%	0.79%	2.88%	1.11%
<b>TOTAL M/WBE</b>	<b>0.64%</b>	<b>3.87%</b>	<b>2.67%</b>	<b>1.85%</b>	<b>6.21%</b>	<b>2.45%</b>
NON-M/WBE	99.36%	96.13%	97.33%	98.15%	93.79%	97.55%
<b>TOTAL FIRMS</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>
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**Table J-4**  
**Prime Utilization**  
**Goods & Services**  
**In the Tennessee Program Area**  
**Distribution of Dollars by Business Ownership and Fiscal Year**  
**(Using Payments, FY 2014-2018)**  
**Metropolitan Nashville Airport Authority Disparity Study**

Business Ownership Classification	2014	2015	2016	2017	2018	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Black American	\$ 448,833	\$ 112,586	\$ 1,155	\$ 5,194	\$ 23,148	\$ 590,917
Asian American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hispanic American	\$ -	\$ -	\$ -	\$ -	\$ 16,814	\$ 16,814
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL MINORITY</b>	<b>\$ 448,833</b>	<b>\$ 112,586</b>	<b>\$ 1,155</b>	<b>\$ 5,194</b>	<b>\$ 39,962</b>	<b>\$ 607,731</b>
Nonminority Female	\$ 47,091	\$ 70,883	\$ 38,766	\$ 28,491	\$ 38,640	\$ 223,869
<b>TOTAL M/WBE</b>	<b>\$ 495,924</b>	<b>\$ 183,469</b>	<b>\$ 39,921</b>	<b>\$ 33,685</b>	<b>\$ 78,602</b>	<b>\$ 831,600</b>
NON-M/WBE	\$ 28,954,191	\$ 7,652,438	\$ 9,941,902	\$ 25,997,144	\$ 19,405,324	\$ 91,950,999
<b>TOTAL FIRMS</b>	<b>\$ 29,450,115</b>	<b>\$ 7,835,907</b>	<b>\$ 9,981,823</b>	<b>\$ 26,030,829</b>	<b>\$ 19,483,926</b>	<b>\$ 92,782,600</b>
Business Ownership Classification	2014	2015	2016	2017	2018	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
Black American	1.52%	5.73%	1.13%	0.02%	0.12%	0.64%
Asian American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hispanic American	0.00%	0.00%	0.00%	0.00%	0.09%	0.02%
Native American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>TOTAL MINORITY</b>	<b>1.52%</b>	<b>1.44%</b>	<b>0.01%</b>	<b>0.02%</b>	<b>0.21%</b>	<b>0.66%</b>
Nonminority Female	0.16%	0.60%	0.71%	0.11%	0.20%	0.24%
<b>TOTAL M/WBE</b>	<b>1.68%</b>	<b>2.34%</b>	<b>0.40%</b>	<b>0.13%</b>	<b>0.40%</b>	<b>0.90%</b>
NON-M/WBE	98.32%	369.51%	76.66%	99.87%	99.60%	99.10%
<b>TOTAL FIRMS</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>
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**Table J-5 Availability of Firms by Business Ownership in Program Area  
Construction and Construction Related Services  
Metropolitan Nashville Airport Authority Disparity Study**

<b>Business Ownership Classification</b>	<b>Number of Firms</b>	<b>Percent of Firms</b>
Black American	156	16.05%
Asian American	15	1.54%
Hispanic American	18	1.85%
Native American	6	0.62%
<b>TOTAL MBE</b>	<b>195</b>	<b>20.06%</b>
Nonminority Female	123	12.65%
<b>TOTAL M/WBE</b>	<b>318</b>	<b>32.72%</b>
NON-M/WDBE	654	67.28%
<b>TOTAL FIRMS</b>	<b>972</b>	<b>100.00%</b>

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**Table J-6 Availability of Firms by Business Ownership in Program Area  
Professional Services  
Metropolitan Nashville Airport Authority Disparity Study**

<b>Business Ownership Classification</b>	<b>Number of Firms</b>	<b>Percent of Firms</b>
Black American	90	12.93%
Asian American	6	0.86%
Hispanic American	17	2.44%
Native American	1	0.14%
<b>TOTAL MBE</b>	<b>114</b>	<b>16.38%</b>
Nonminority Female	58	8.33%
<b>TOTAL M/WBE</b>	<b>172</b>	<b>24.71%</b>
NON-M/WDBE	524	75.29%
<b>TOTAL FIRMS</b>	<b>696</b>	<b>100.00%</b>

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**Table J-7 Availability of Firms by Business Ownership in Program Area  
Goods and Services  
Metropolitan Nashville Airport Authority Disparity Study**

<b>Business Ownership Classification</b>	<b>Number of Firms</b>	<b>Percent of Firms</b>
Black American	192	16.86%
Asian American	11	0.97%
Hispanic American	13	1.14%
Native American	5	0.44%
<b>TOTAL MBE</b>	<b>221</b>	<b>19.40%</b>
Nonminority Female	75	6.58%
<b>TOTAL M/WBE</b>	<b>296</b>	<b>25.99%</b>
NON-M/WDBE	843	74.01%
<b>TOTAL FIRMS</b>	<b>1,139</b>	<b>100.00%</b>

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**Table J-8 Disparity Results, Tennessee Program Area**  
**Business Ownership Classification by Fiscal Year, Construction and Construction Related**  
**Services, Non-federal**  
**Using Payments, FY 2014-2018**  
**Metropolitan Nashville Airport Authority Disparity Study**

Fiscal Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2014	Black American	0.90%	16.05%	5.62	Underutilization	*	
	Asian American	0.01%	1.54%	0.48	Underutilization	*	
	Hispanic American	0.00%	1.85%	0.00	Underutilization	*	
	Native American	0.00%	0.62%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.91%	20.06%	<b>4.53</b>	<b>Underutilization</b>	*	
	Nonminority Female	5.51%	12.65%	43.52	Underutilization	*	
	<b>TOTAL M/WBE</b>	6.42%	32.72%	<b>19.61</b>	<b>Underutilization</b>	*	
	Non-M/WBE	93.58%	67.28%	139.09	Overutilization		
2015	Black American	1.42%	16.05%	8.85	Underutilization	*	
	Asian American	0.09%	1.54%	5.76	Underutilization	*	
	Hispanic American	0.00%	1.85%	0.00	Underutilization	*	
	Native American	0.00%	0.62%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.51%	20.06%	<b>7.52</b>	<b>Underutilization</b>	*	
	Nonminority Female	9.82%	12.65%	77.61	Underutilization	*	
	<b>TOTAL M/WBE</b>	11.33%	32.72%	<b>34.63</b>	<b>Underutilization</b>	*	
	Non-M/WBE	88.67%	67.28%	131.78	Overutilization		
2016	Black American	2.79%	16.05%	17.38	Underutilization	*	
	Asian American	0.24%	1.54%	15.27	Underutilization	*	
	Hispanic American	0.94%	1.85%	50.96	Underutilization	*	
	Native American	0.00%	0.62%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	3.97%	<b>20.06%</b>	<b>19.78</b>	<b>Underutilization</b>	*	
	Nonminority Female	11.70%	12.65%	92.45	Underutilization	*	
	<b>TOTAL M/WBE</b>	15.67%	<b>32.72%</b>	<b>47.89</b>	<b>Underutilization</b>	*	
	Non-M/WBE	84.33%	67.28%	125.34	Overutilization		
2017	Black American	0.30%	16.05%	1.85	Underutilization	*	
	Asian American	0.01%	1.54%	0.76	Underutilization	*	
	Hispanic American	0.78%	1.85%	41.98	Underutilization	*	
	Native American	0.00%	0.62%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.09%	<b>20.06%</b>	<b>5.41</b>	<b>Underutilization</b>	*	
	Nonminority Female	8.32%	12.65%	65.73	Underutilization	*	
	<b>TOTAL M/WBE</b>	9.40%	<b>32.72%</b>	<b>28.74</b>	<b>Underutilization</b>	*	
	Non-M/WBE	90.60%	67.28%	134.65	Overutilization		
2018	Black American	6.99%	16.05%	43.54	Underutilization	*	
	Asian American	0.89%	1.54%	57.93	Underutilization	*	
	Hispanic American	2.11%	1.85%	113.71	Overutilization		
	Native American	0.60%	0.62%	97.99	Underutilization	*	
	<b>TOTAL MBE</b>	10.59%	<b>20.06%</b>	<b>52.80</b>	<b>Underutilization</b>	*	
	Nonminority Female	9.34%	<b>12.65%</b>	<b>73.79</b>	<b>Underutilization</b>	*	
	<b>TOTAL M/WBE</b>	19.93%	<b>32.72%</b>	<b>60.92</b>	<b>Underutilization</b>	*	
	Non-M/WBE	80.07%	67.28%	119.00	Overutilization		
Total	Black American	3.31%	16.05%	20.65	Underutilization	*	p <.05
	Asian American	0.38%	1.54%	24.72	Underutilization	*	p <.05
	Hispanic American	1.15%	1.85%	62.02	Underutilization	*	p <.05
	Native American	0.23%	0.62%	37.85	Underutilization	*	
	<b>TOTAL MBE</b>	5.08%	<b>20.06%</b>	<b>25.31</b>	<b>Underutilization</b>	*	p <.05
	Nonminority Female	8.78%	12.65%	69.38	Underutilization	*	p <.05
	<b>TOTAL M/WBE</b>	13.86%	<b>32.72%</b>	<b>42.35</b>	<b>Underutilization</b>	*	p <.05
	Non-M/WBE	86.14%	67.28%	128.03	Overutilization		

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**Table J-9**  
**Disparity Results, Tennessee Program Area,**  
**Business Ownership Classification by Fiscal Year, Construction & Construction Related**  
**Services, Federal**  
**Using Payments, FY 2014-2017**  
**Metropolitan Nashville Airport Authority Disparity Study**

Fiscal Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2014	Black American	0.03%	16.05%	0.18	Underutilization	*	
	Asian American	0.00%	1.54%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.85%	0.00	Underutilization	*	
	Native American	0.00%	0.62%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.03%	20.06%	<b>0.14</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.18%	12.65%	1.39	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.20%	32.72%	<b>0.63</b>	<b>Underutilization</b>	*	
	Non-M/WBE	99.80%	67.28%	148.32	Overutilization		
2015	Black American	0.15%	16.05%	0.94	Underutilization	*	
	Asian American	0.00%	1.54%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.85%	0.00	Underutilization	*	
	Native American	0.00%	0.62%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.15%	20.06%	<b>0.75</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.08%	12.65%	0.66	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.23%	32.72%	<b>0.72</b>	<b>Underutilization</b>	*	
	Non-M/WBE	99.77%	67.28%	148.28	Overutilization		
2016	Black American	2.40%	16.05%	14.94	Underutilization	*	
	Asian American	0.08%	1.54%	5.35	Underutilization	*	
	Hispanic American	0.00%	1.85%	0.00	Underutilization	*	
	Native American	0.00%	0.62%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	2.48%	20.06%	<b>12.36</b>	<b>Underutilization</b>	*	
	Nonminority Female	0.73%	12.65%	5.80	Underutilization	*	
	<b>TOTAL M/WBE</b>	3.21%	32.72%	<b>9.83</b>	<b>Underutilization</b>	*	
	Non-M/WBE	96.79%	67.28%	143.85	Overutilization		
2017	Black American	1.34%	16.05%	8.37	Underutilization	*	
	Asian American	0.45%	1.54%	29.39	Underutilization	*	
	Hispanic American	0.00%	1.85%	0.00	Underutilization	*	
	Native American	0.00%	0.62%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.80%	20.06%	<b>8.96</b>	<b>Underutilization</b>	*	
	Nonminority Female	1.34%	12.65%	10.60	Underutilization	*	
	<b>TOTAL M/WBE</b>	3.14%	32.72%	<b>9.59</b>	<b>Underutilization</b>	*	
	Non-M/WBE	96.86%	67.28%	143.96	Overutilization		
Total	Black American	0.95%	16.05%	5.94	Underutilization	*	p < .05
	Asian American	0.10%	1.54%	6.24	Underutilization	*	p < .05
	Hispanic American	0.00%	1.85%	0.00	Underutilization	*	p < .05
	Native American	0.00%	0.62%	0.00	Underutilization	*	p < .05
	<b>TOTAL MBE</b>	1.05%	20.06%	<b>5.23</b>	<b>Underutilization</b>	*	p < .05
	Nonminority Female	0.50%	12.65%	3.92	Underutilization	*	p < .05
	<b>TOTAL M/WBE</b>	1.55%	32.72%	<b>4.73</b>	<b>Underutilization</b>	*	p < .05
	Non-M/WBE	98.45%	67.28%	146.33	Overutilization		

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**Table J-10 Disparity Results, Tennessee Program Area,  
Business Ownership Classification by Fiscal Year, Professional Services  
Using Payments, FY 2014-2018  
Metropolitan Nashville Airport Authority Disparity Study**

Fiscal Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2014	Black American	0.25%	12.93%	1.94	Underutilization	*	
	Asian American	0.00%	0.86%	0.00	Underutilization	*	
	Hispanic American	0.00%	2.44%	0.01	Underutilization	*	
	Native American	0.00%	0.14%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.25%	16.38%	1.53	<b>Underutilization</b>	*	
	Nonminority Female	0.39%	8.33%	4.63	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.64%	24.71%	2.58	<b>Underutilization</b>	*	
	Non-M/WBE	99.36%	75.29%	131.98	Overutilization		
2015	Black American	2.48%	12.93%	19.14	Underutilization	*	
	Asian American	0.00%	0.86%	0.00	Underutilization	*	
	Hispanic American	0.05%	2.44%	1.86	Underutilization	*	
	Native American	0.00%	0.14%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	2.52%	16.38%	15.39	<b>Underutilization</b>	*	
	Nonminority Female	1.35%	8.33%	16.21	Underutilization	*	
	<b>TOTAL M/WBE</b>	3.87%	24.71%	15.67	<b>Underutilization</b>	*	
	Non-M/WBE	96.13%	75.29%	127.68	Overutilization		
2016	Black American	1.32%	12.93%	10.24	Underutilization	*	
	Asian American	0.00%	0.86%	0.00	Underutilization	*	
	Hispanic American	0.11%	2.44%	4.40	Underutilization	*	
	Native American	0.00%	0.14%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.43%	<b>16.38%</b>	8.74	<b>Underutilization</b>	*	
	Nonminority Female	1.24%	8.33%	14.89	Underutilization	*	
	<b>TOTAL M/WBE</b>	2.67%	<b>24.71%</b>	10.82	<b>Underutilization</b>	*	
	Non-M/WBE	97.33%	75.29%	129.27	Overutilization		
2017	Black American	0.75%	12.93%	5.81	Underutilization	*	
	Asian American	0.00%	0.86%	0.00	Underutilization	*	
	Hispanic American	0.30%	2.44%	12.42	Underutilization	*	
	Native American	0.00%	0.14%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.05%	<b>16.38%</b>	6.44	<b>Underutilization</b>	*	
	Nonminority Female	0.79%	8.33%	9.52	Underutilization	*	
	<b>TOTAL M/WBE</b>	1.85%	<b>24.71%</b>	7.48	<b>Underutilization</b>	*	
	Non-M/WBE	98.15%	75.29%	130.37	Overutilization		
2018	Black American	3.00%	12.93%	23.17	Underutilization	*	
	Asian American	0.00%	0.86%	0.00	Underutilization	*	
	Hispanic American	0.33%	2.44%	13.69	Underutilization	*	
	Native American	0.00%	0.14%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	3.33%	<b>16.38%</b>	20.34	<b>Underutilization</b>	*	
	Nonminority Female	2.88%	<b>8.33%</b>	34.56	<b>Underutilization</b>	*	
	<b>TOTAL M/WBE</b>	6.21%	<b>24.71%</b>	25.13	<b>Underutilization</b>	*	
	Non-M/WBE	93.79%	75.29%	124.58	Overutilization		
Total	Black American	1.22%	12.93%	9.43	Underutilization	*	p < .05
	Asian American	0.00%	0.86%	0.00	Underutilization	*	p < .05
	Hispanic American	0.12%	2.44%	4.96	Underutilization	*	p < .05
	Native American	0.00%	0.14%	0.00	Underutilization	*	Small Number
	<b>TOTAL MBE</b>	1.34%	<b>16.38%</b>	8.18	<b>Underutilization</b>	*	p < .05
	Nonminority Female	1.11%	8.33%	13.30	Underutilization	*	p < .05
	<b>TOTAL M/WBE</b>	2.45%	<b>24.71%</b>	9.91	<b>Underutilization</b>	*	p < .05
	Non-M/WBE	97.55%	75.29%	129.57	Overutilization		

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**Table J-10 Disparity Results, Tennessee Program Area,  
Business Ownership Classification by Fiscal Year, Goods & Services  
Using Payments, FY 2014-2018  
Metropolitan Nashville Airport Authority Disparity Study**

Fiscal Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2014	Black American	1.52%	16.86%	9.04	Underutilization	*	
	Asian American	0.00%	0.97%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.14%	0.00	Underutilization	*	
	Native American	0.00%	0.44%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.52%	19.40%	<b>7.85</b>	<b>Underutilization</b>	<b>*</b>	
	Nonminority Female	0.16%	6.58%	2.43	Underutilization	*	
	<b>TOTAL M/WBE</b>	1.68%	25.99%	<b>6.48</b>	<b>Underutilization</b>	<b>*</b>	
2015	Black American	98.32%	74.01%	132.84	Overutilization		
	Black American	5.73%	16.86%	33.98	Underutilization	*	
	Asian American	0.00%	0.97%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.14%	0.00	Underutilization	*	
	Native American	0.00%	0.44%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	1.44%	19.40%	<b>7.41</b>	<b>Underutilization</b>	<b>*</b>	
	Nonminority Female	0.60%	6.58%	9.13	Underutilization	*	
2016	<b>TOTAL M/WBE</b>	2.34%	25.99%	<b>9.01</b>	<b>Underutilization</b>	<b>*</b>	
	Non-M/WBE	369.51%	74.01%	499.25	Overutilization		
	Black American	1.13%	16.86%	6.69	Underutilization	*	
	Asian American	0.00%	0.97%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.14%	0.00	Underutilization	*	
	Native American	0.00%	0.44%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.01%	19.40%	<b>0.06</b>	<b>Underutilization</b>	<b>*</b>	
2017	Nonminority Female	0.71%	6.58%	10.78	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.40%	25.99%	<b>1.54</b>	<b>Underutilization</b>	<b>*</b>	
	Non-M/WBE	76.66%	74.01%	103.58	Overutilization		
	Black American	0.02%	16.86%	0.12	Underutilization	*	
	Asian American	0.00%	0.97%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.14%	0.00	Underutilization	*	
	Native American	0.00%	0.44%	0.00	Underutilization	*	
2018	<b>TOTAL MBE</b>	0.02%	19.40%	<b>0.10</b>	<b>Underutilization</b>	<b>*</b>	
	Nonminority Female	0.11%	6.58%	1.66	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.13%	25.99%	<b>0.50</b>	<b>Underutilization</b>	<b>*</b>	
	Non-M/WBE	99.87%	74.01%	134.94	Overutilization		
	Black American	0.12%	16.86%	0.70	Underutilization	*	
	Asian American	0.00%	0.97%	0.00	Underutilization	*	
	Hispanic American	0.09%	1.14%	7.56	Underutilization	*	
Total	Native American	0.00%	0.44%	0.00	Underutilization	*	
	<b>TOTAL MBE</b>	0.21%	19.40%	<b>1.06</b>	<b>Underutilization</b>	<b>*</b>	
	Nonminority Female	0.20%	6.58%	3.01	Underutilization	*	
	<b>TOTAL M/WBE</b>	0.40%	25.99%	<b>1.55</b>	<b>Underutilization</b>	<b>*</b>	
	Non-M/WBE	99.60%	74.01%	134.57	Overutilization		
	Black American	0.64%	16.86%	3.78	Underutilization	*	p < .05
	Asian American	0.00%	0.97%	0.00	Underutilization	*	p < .05
Hispanic American	0.02%	1.14%	1.59	Underutilization	*	p < .05	
Native American	0.00%	0.44%	0.00	Underutilization	*	p < .05	
<b>TOTAL MBE</b>	0.66%	19.40%	<b>3.38</b>	<b>Underutilization</b>	<b>*</b>	<b>p &lt; .05</b>	
Nonminority Female	0.24%	6.58%	3.66	Underutilization	*	p < .05	
<b>TOTAL M/WBE</b>	0.90%	25.99%	<b>3.45</b>	<b>Underutilization</b>	<b>*</b>	<b>p &lt; .05</b>	
Non-M/WBE	99.10%	74.01%	133.90	Overutilization			

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