# State of North Carolina 

Department of Administration

## Disparity Study Report Volume 1

State Agencies
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## DEDICATED TO THE LIFELONG WORK AND CAUSE OF ANDREA HARRIS

## State of North Carolina Department of Administration 2020 Disparity Study

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- Bridget Wall-Lennon, BLWall Consulting, LLC., Anecdotal Interviews, Custom Census Surveys, and assisted with the Purchasing Practices, Policies, and Procedures Chapter of this Study.


## I. BACKGROUND AND INTRODUCTION

The State of North Carolina Department of Administration (the "State"), through the Office of Historically Underutilized Businesses ("HUB Office") contracted with Griffin \& Strong, P.C. to conduct a disparity study of goods and services procured by the State ("Study"). The Study was to determine whether the State, either in the past or currently, engages in exclusionary practices in the solicitation and award of contracts to minority and women owned businesses (MWBE).

The previous disparity study for the State was completed in 2003. That disparity study covered construction activities only, for five (5) fiscal years preceding the disparity study, 1997 through 2001 (FY 1996/97 through FY 2000/01). Governmental entity types included in this study consisted of state agencies, universities and community colleges. Upon conclusion of that study, the results were used to determine those areas where minority and women owned businesses were underutilized. The last disparity study conducted of the State's procurement practices of goods and services, which also included a study of construction activities, was completed in 1995. This disparity study covered the period of fiscal years 1989 through 1994 (FY 1988/89 through FY 1993/94).

The State also has several General Statutes and Executive Orders that reference historically underutilized business policies and goals, some of which are: Article 3, N.C.G.S. §143-48; Article 8, N.C.G.S. §143-128; Executive Order 150 and Executive Order No. 106.

Governmental entities across the country authorize disparity studies in response to City of Richmond v. J.A. Croson Co., 488 U.S. 469 (1989) and subsequent cases in order to determine whether there is a compelling interest for the creation or continuation of remedial procurement programs, based upon race, gender, and ethnicity. In order for the legal requirements of Croson and its progeny to be satisfied for any race or gender based activities, GSPC must determine whether the State has been a passive or active participant in discrimination with regard to the access of MWBEs to its procurement processes.

To achieve these ends, GSPC analyzed the contracting and subcontracting activities of the ten (10) State Cabinet Agencies, nine (9) Council of State Agencies, and ten (10) Support Agencies in the Volume I Report and fifty-eight (58) community colleges, and twenty-one (21) universities and associated agencies for the five (5) year period FY2014-FY2018, commencing July 1, 2013 through June 30, 2018 (Study Period) in the Industry Categories of Construction, Architecture and Engineering ("A\&E"), Professional Services, Other Services, and Goods.

ATTORNEYS AND PUBLIC POLICY CONSULTANTS

- Cabinet Agencies ${ }^{1}$

| Department of Administration |
| :--- |
| Department of Commerce |
| Department of Environmental Quality |
| Department of Health and Human Services |
| Department of Information Technology |
| Department of Military and Veterans Affairs |
| Department of Natural and Cultural Resources |
| Department of Public Safety |
| Department of Revenue |
| Department of Transportation $^{2}$ |

- Council of State Agencies

| Department of Agriculture and Consumer Services |
| :--- |
| Department of Insurance |
| Department of Justice |
| Department of Labor |
| Department of Public Instruction |
| Department of the Secretary of State |
| Department of the Treasurer |
| Lieutenant Governor |
| State Auditor |

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| Administrative Hearings |
| :--- |
| Administrative Office of the Courts |
| Board of Elections |
| Community College System |
| Education Lottery |
| General Assembly |
| Office of the Governor |
| Ports Authority |
| State Controller |
| Wildlife Resources Commission |

- Community Colleges - 58

| Alamance Community College |
| :--- |
| Asheville-Buncombe Technical Community |
| College |
| Beaufort County Community College |
| Bladen Community College |
| Blue Ridge Community College |
| Brunswick Community College |
| Caldwell Community College and Technical |
| Institute |
| Cape Fear Community College |
| Carteret Community College |
| Catawba Valley Community College |
| Central Carolina Community College |
| Central Piedmont Community College |
| Cleveland Community College |
| Coastal Carolina Community College |
| College of The Albemarle |
| Craven Community College |
| Davidson County Community College |
| Durham Technical Community College |
| Edgecombe Community College |
| Fayetteville Technical Community College |
| Forsyth Technical Community College |
| Gaston College |
| Guilford Technical Community College |
| Halifax Community College |
| Haywood Community College |
| Isothermal Community College |
| James Sprunt Community College |
| Johnston Community College |
| Lenoir Community College |
| Martin Community College |
| Mayland Community College |
| McDowell Technical Community College |
| Mitchell Community College |
| Montgomery Community College |
| Nash Community College |
| Pamlico Community College |
| Piedmont Community College |
|  |


| Pitt Community College |
| :--- |
| Randolph Community College |
| Richmond Community College |
| Roanoke-Chowan Community College |
| Robeson Community College |
| Rockingham Community College |
| Rowan-Cabarrus Community College |
| Sampson Community College |
| Sandhills Community College |
| South Piedmont Community College |
| Southeastern Community College |
| Southwestern Community College |
| Stanly Community College |
| Surry Community College |
| Tri-County Community College |
| Vance-Granville Community College |
| Wake Technical Community College |
| Wayne Community College |
| Western Piedmont Community College |
| Wilkes Community College |
| Wilson Community College |

Universities $16+3$ Related Institutions

| Appalachian State University |
| :--- |
| East Carolina University |
| Elizabeth City State University |
| Fayetteville State University |
| NC A\&T State University |
| NC Arboretum - Construction Reporting Only |
| NC School of Science and Mathematics |
| NC School of the Arts |
| North Carolina Central University |
| North Carolina State University |
| UNC Asheville |
| UNC Chapel Hill |
| UNC Charlotte |
| UNC General Administration |
| UNC Greensboro |
| UNC Hospitals |
| UNC Pembroke |
| UNC Wilmington |
| UNC-TV - Construction reporting only |
| Western Carolina University |
| Winston-Salem State University |

## A. Objectives

The principal objectives of this Study were:

- to examine the extent of participation of minorities and women in the State's procurement activities;
- to collect and analyze relevant data to determine if there is a disparity between the number of minority and woman owned businesses that are "ready, willing and able" as vendors in the areas of Construction, Architecture \& Engineering (A\&E), Professional Services, Other Services, and Goods;
- to determine whether there are current discriminatory practices, or the present effects of past discriminatory practices in the State's solicitation and award of contracts;
- to determine if a legally justified need continues to exist for any or all of the State's remedial efforts or for new efforts with regard to the awarding of contracts; and
- to provide recommendations for actions to be taken by the State as a result of the findings of the Study, including serious consideration of race-neutral program options.


## 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 with regard to MWBE 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;
- collecting electronic data, inputting manual data, organizing, and cleaning data, as well as filling any data gaps;
- conducting market area analyses;
- conducting utilization analyses;
- determining the availability of qualified firms;
- analyzing the utilization and availability data for disparity and statistical significance;
- conducting private sector analysis including credit and self-employment;
- collecting and analyzing anecdotal information; and
- preparing a final report that presents race- and gender-neutral and narrowly tailored raceand gender-based remedies if indicated by the findings.


## C. Report Organization

This report is organized into the following sections, which provide the results of GSPC's analytical findings as to the utilization and availability of firms to perform work for the State. In addition to this introductory chapter, this report includes:

- Chapter II, which presents GSPC's detailed findings and recommendations in an Executive Summary
- Chapter III, which is an overview of the legal history and basis for the Study;
- Chapter IV, which provides a review of the State's purchasing policy and remedial policy;
- Chapter V, which presents the methodology used in the collection of statistical data from the State and the analyses of the data as it relates to relative MWBE availability and utilization analyses, and also includes a discussion on levels of disparity for the State's prime contractors and subcontractors;
- Chapter VI, which analyzes whether there is discrimination in the private sector;
- Chapter VII, which outlines the qualitative analyses: the analysis of anecdotal data collected from the online survey, personal interviews, focus groups and public meetings; and
- Chapter VIII, which is GSPC's conclusion.


## II. EXECUTIVE SUMMARY OF FINDINGS AND RECOMMENDATIONS

This chapter presents the findings and recommendations resulting from the Study for the State of North Carolina related to Construction, Architecture \& Engineering, Professional Services, Other Services, and Goods for the five-year period FY2014-FY2018.

As the detailed findings below will demonstrate, GSPC found statistically significant underutilization of minority and woman owned firms ("MWBE") in all five (5) Industry Categories that GSPC analyzed. A regression analysis was performed and found that there was evidence to indicate that the disparities by race, ethnicity, or gender status of the firm owners remained after controlling for capacity and other race and gender-neutral factors. This statistical evidence found support in the anecdotal accounts of firms located in the State.

## A. Legal Findings

## FINDING 1: LEGAL FINDING

Consistent with the "narrow tailoring" aspect of the strict scrutiny analysis, the State continues to implement race- and gender-neutral measures to try to increase utilization of MWBE firms, but the present Study shows that those measures have not been effective in ameliorating the identified disparities. ${ }^{1}$ Accordingly, the State has a basis to continue and/or introduce race- and gender-conscious remedies or policies toward that goal. ${ }^{2}$

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

Lastly, having obtained statistical and anecdotal evidence of disparities that are race-, ethnicity-, and gender-specific, the State of North Carolina can ensure that the more robust remedies considered as a result

[^0]of this Study can be limited to minority groups for which underutilization and an inference of discrimination has been identified. ${ }^{3}$

## B. Quantitative Findings

## FINDING 2: RELEVANT GEOGRAPHIC AND PRODUCT MARKETS

The State of North Carolina was determined to be the Relevant Market based on the following percentages of spending (Table 1 ).

## Table 1: Relevant Market

(Based upon the Master Vendor File)
State Disparity Study

| Industry Category | Percent of Dollars <br> Spent in North <br> Carolina |
| :--- | :---: |
| Construction | $93.32 \%$ |
| Architecture and Engineering | $91.54 \%$ |
| Professional Services | $79.11 \%$ |
| Other Services | $78.12 \%$ |
| Goods | $78.78 \%$ |

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## FINDING 3: AVAILABILITY

The measures of availability utilized in this Study incorporate all of the criteria of availability required by Croson:
$>$ The firm does business within an industry group from which the State 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 State.
The firms used to calculate Availability came from the Master Vendor File of firms seeking public sector opportunities in the North Carolina Relevant Market area. GSPC found that firms were available to provide goods and services to State as reflected in the following percentages by each race, ethnicity, and gender group (Table 2). Availability analyses based on a "custom census" survey of Hoover's data is also contained in the report.

[^1]Table 2: Availability Estimates by Industry Category

> In the Relevant Market
> (Based upon the Master Vendor File)

State Disparity Study

| Business Ownership <br> Classification | Construction | A\&E | Professional <br> Services | Other <br> Services | Goods |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Black American | $13.71 \%$ | $9.17 \%$ | $15.68 \%$ | $6.85 \%$ | $2.99 \%$ |
| Asian American | $1.03 \%$ | $3.17 \%$ | $2.29 \%$ | $0.59 \%$ | $0.43 \%$ |
| Hispanic American | $4.20 \%$ | $3.50 \%$ | $1.70 \%$ | $0.71 \%$ | $0.68 \%$ |
| American Indian | $2.09 \%$ | $1.83 \%$ | $1.24 \%$ | $0.30 \%$ | $0.26 \%$ |
| TOTAL MBE | $\mathbf{2 1 . 0 2 \%}$ | $\mathbf{1 7 . 6 7 \%}$ | $\mathbf{2 0 . 9 1 \%}$ | $\mathbf{8 . 4 4 \%}$ | $\mathbf{4 . 3 5 \%}$ |
| Nonminority Female | $12.55 \%$ | $13.83 \%$ | $8.12 \%$ | $3.85 \%$ | $3.58 \%$ |
| TOTAL M/WBE | $\mathbf{3 3 . 5 7 \%}$ | $\mathbf{3 1 . 5 0 \%}$ | $\mathbf{2 9 . 0 2 \%}$ | $\mathbf{1 2 . 2 9 \%}$ | $\mathbf{7 . 9 3 \%}$ |
| NON-M/WDBE | $66.43 \%$ | $68.50 \%$ | $\mathbf{7 0 . 9 8 \%}$ | $\mathbf{8 7 . 7 1 \%}$ | $\mathbf{9 2 . 0 7 \%}$ |
| TOTAL FIRMS | $\mathbf{1 0 0 . 0 0 \%}$ | $\mathbf{1 0 0 . 0 0 \%}$ | $\mathbf{1 0 0 . 0 0 \%}$ | $\mathbf{1 0 0 . 0 0 \%}$ | $\mathbf{1 0 0 . 0 0 \%}$ |

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## FINDING 4: MWBE PRIME UTILIZATION

As Table 3 below shows, the State paid a total of $\$ 683.3$ million in prime construction spending in the Relevant Market during the Study Period and $\$ 38.6$ million of this amount, or $5.65 \%$ was paid with MWBE firms as prime contractors. MWBEs were paid $8.32 \%$ of A\&E, $1.81 \%$ of Professional Services, $1.98 \%$ of Other Services and $1.01 \%$ of Goods. MWBEs won $2.00 \%$ of prime payments across all Industry Categories. Table 4 provides a summary of all utilization in all Industry Categories.

Table 3: Summary of Prime Utilization by Industry Category

# In the Relevant Market <br> (Based upon Payments FY2014-FY2018) <br> State Disparity Study 

| Firm Ownership | Construction |  |  | A\&E |  |  | Professional Services |  |  | Other Services |  |  | Goods |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Black American | \$ | 3,945,923 | 0.58\% | \$ | 524,397 | 0.24\% | \$ | 885,077 | 0.13\% | \$ | 13,659,769 | 0.29\% | \$ 2,546,324 | 0.07\% |
| Asian American | \$ | 52,193 | 0.01\% | \$ | 23,048 | 0.01\% | \$ | 195,171 | 0.03\% |  | 46,185,792 | 0.99\% | \$ 14,217,231 | 0.38\% |
| Hispanic American | \$ | 4,266,882 | 0.62\% | \$ | 616,098 | 0.28\% | \$ | 232,518 | 0.03\% | \$ | 166,237 | 0.00\% | \$ 784,703 | 0.02\% |
| American Indian | \$ | 1,311,663 | 0.19\% | \$ | 1,709,007 | 0.77\% | \$ | 239,443 | 0.03\% | \$ | 639,457 | 0.01\% | \$ 163,694 | 0.00\% |
| TOTAL MINORITY | \$ | 9,576,661 | 1.40\% | \$ | 2,872,550 | 1.30\% | \$ | 1,552,208 | 0.22\% | \$ | 60,651,255 | 1.31\% | \$ 17,711,952 | 0.48\% |
| Nonminority Female | \$ | 29,023,866 | 4.25\% | \$ | 15,530,385 | 7.02\% | \$ | 10,953,313 | 1.59\% | \$ | 31,418,787 | 0.68\% | \$ 19,655,234 | 0.53\% |
| TOTAL M/WBE | \$ | 38,600,526 | 5.65\% | \$ | 18,402,935 | 8.32\% | \$ | 12,505,521 | 1.81\% | \$ | 92,070,041 | 1.98\% | \$ 37,367,186 | 1.01\% |
| NON-M/WBE | \$ | 644,681,891 | 94.35\% | \$ | 202,675,554 | 91.68\% | \$ | 677,835,251 | 98.19\% |  | 4,553,508,389 | 98.02\% | \$ 3,670,326,273 | 98.99\% |
| TOTAL FIRMS | \$ | 683,282,418 | 100.00\% | \$ | 221,078,489 | 100.00\% | \$ | 690,340,773 | 100.00\% | \$ | 4,645,578,431 | 100.00\% | \$ 3,707,693,459 | 100.00\% |

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# Table 4: Total of Prime Utilization in All Industry Categories 

In the Relevant Market
(Based upon Payments FY2014-FY2018)

| Firm Ownership | Total |  |  |
| :--- | :--- | ---: | :---: |
| Black American | $\$$ | $21,561,490$ | $0.22 \%$ |
| Asian American | $\$$ | $60,673,435$ | $0.61 \%$ |
| Hispanic American | $\$$ | $6,066,438$ | $0.06 \%$ |
| American Indian | $\$$ | $4,063,262$ | $0.04 \%$ |
| TOTAL MINORITY | $\mathbf{\$}$ | $\mathbf{9 2 , 3 6 4 , 6 2 5}$ | $\mathbf{0 . 9 3 \%}$ |
| Nonminority Female | $\$$ | $106,581,586$ | $1.07 \%$ |
| TOTAL M/WBE | $\mathbf{\$}$ | $\mathbf{1 9 8 , 9 4 6 , 2 1 1}$ | $\mathbf{2 . 0 0 \%}$ |
| NON-M/WBE | $\$ \mathbf{9 , 7 4 9 , 0 2 7 , 3 5 9}$ | $98.00 \%$ |  |
| TOTAL FIRMS | $\mathbf{\$ 9 , 9 4 7 , 9 7 3 , 5 7 0}$ | $\mathbf{1 0 0 . 0 0 \%}$ |  |

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## FINDING 5: MWBE TOTAL UTILIZATION (PRIME PLUS SUBCONTRACTOR)

As shown in Table 5 below MBEs received $\$ 12,595,854$ in Construction payments during the Study Period, accounting for $1.84 \%$ of the total Construction paid dollars. Nonminority Female owned firms were paid a total of $\$ 36,856,059,5.39 \%$ of the total Construction dollars. MWBEs received $7.24 \%$ of the total Construction dollars.

MBEs received \$4,461,299 in Architecture and Engineering payments during the Study Period, 2.02\% of the total Architecture and Engineering dollars, while Nonminority Female owned firms were paid $\$ 16,502,020,7.46 \%$ of the total Architecture and Engineering dollars. MWBEs received $9.48 \%$ of total Architecture and Engineering dollars.

There was no significant subcontracting in the Professional Services, Other Services and Goods to report for this study.

Table 5: Summary of Total Utilization by Industry Category

| In the Relevant Market <br> (Based upon Payments FY2014-FY2018) <br> State Disparity Study |  |  |
| :---: | :---: | :---: |
| Business Ownership Classification | Construction | A\&E |
|  | (\$) | (\$) |
| Black American | \$ 5,681,835 | \$ 1,799,271 |
| Asian American | \$ 52,193 | \$ 44,048 |
| Hispanic American | \$ 5,281,734 | \$ 745,915 |
| American Indian | \$ 1,580,092 | \$ 1,872,065 |
| TOTAL MINORITY | \$ 12,595,854 | \$ 4,461,299 |
| Nonminority Female | \$ 36,856,059 | \$ 16,502,020 |
| TOTAL M/WBE | \$ 49,451,913 | \$ 20,963,318 |
| NON-M/WBE | \$633,830,505 | \$ 200,115,171 |
| TOTAL FIRMS | \$683,282,418 | \$ 221,078,489 |
| Business Ownership Classification | TOTAL | TOTAL |
|  | (\%) | (\%) |
| Black American | 0.83\% | 0.81\% |
| Asian American | 0.01\% | 0.02\% |
| Hispanic American | 0.77\% | 0.34\% |
| American Indian | 0.23\% | 0.85\% |
| TOTAL MINORITY | 1.84\% | 2.02\% |
| Nonminority Female | 5.39\% | 7.46\% |
| TOTAL M/WBE | 7.24\% | 9.48\% |
| NON-M/WBE | 92.76\% | 90.52\% |
| TOTAL FIRMS | 100.00\% | 100.00\% |

Griffin \& Strong, P.C. 2020

## FINDING 6: UTILIZATION BY AGENCY

The highest MWBE utilization in percentage terms for an agency with more than $\$ 1$ million in spending was J Iverson Riddle Center, with $39.64 \%$. In absolute dollars terms the highest spending with MBEs ( $\$ 17,680,726$ ), WBEs $(\$ 9,704,469)$ and MWBEs $(\$ 27,385,195)$ was with NCDOT.

## FINDING 7: SUMMARY OF DISPARITY ANALYSIS FOR FY2o14-FY2o18

Table 6 below indicates those MWBE groups where a statistically significant disparity (X) was found in prime utilization and total utilization for all procurement categories. Table 7 below indicates those MWBE groups where a statistically significant disparity ( X ) was found in total utilization for Construction and Architecture \& Engineering.

Table 6: Summary of Statistically Significant Underutilization of MWBEs in Prime Contracting
State Disparity Study

|  | Construction |  <br> Engineering | Professional <br> Services | Other Services | Goods |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Black American | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Asian American | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Hispanic American | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| American Indian | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Nonminority Female | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |

Griffin \& Strong, P.C. 2019

Table 7: Summary of Statistically Significant Underutilization of MWBEs in Total Contracting
State Disparity Study

|  | Construction |  <br> Engineering |
| :--- | :---: | :---: |
| Black American | $\mathbf{X}$ | $\mathbf{X}$ |
| Asian American | $\mathbf{X}$ | $\mathbf{X}$ |
| Hispanic American | $\mathbf{X}$ | $\mathbf{X}$ |
| American Indian | $\mathbf{X}$ | $\mathbf{X}$ |
| Nonminority Female | $\mathbf{X}$ | $\mathbf{X}$ |

Griffin \& Strong, P.C. 2019

Disparity was also examined in Appendix E using different availability sources and eliminating larger projects. With few exceptions, disparity for all MWBE groups was also found for:
(1) Projects less than $\$ 500,000$ for all procurement categories, except for Asian Americans in Prime Other Services
(2) Projects less than $\$ 1$ million for all procurement categories.

Also, in Appendix J, GSPC conducted a disparity analysis using a Custom Census method for determining availability.

## C. Policy Findings

## FINDING 8: State Procurement and HUB Utilization

Procurement of design services for architectural, engineering and surveying projects greater than $\$ 500,000$ must make good faith efforts by the owner to notify minority firms of the opportunity to submit qualifications for consideration.

There have been some concerns expressed by vendors and staff about the difficulty of HUBs winning state term contract awards. Certified HUBs held 11 of the 84 state term contracts in 2019.

## FINDING 9: Bonding and Insurance

The State requires performance and payment bonds, for 100 percent of the contract on formal prime construction contracts over $\$ 500,000$. About $14.2 \%$ of MBE and $9.2 \%$ of WBE survey respondents reported bonding as a barrier to obtaining work on State County projects. About $9.5 \%$ of MBE and $3.7 \%$ of WBE survey respondents reported insurance requirements as a barrier to obtaining work on State County projects.

## FINDING 10: Prompt Payment

State staff report that there are still some complaints about prompt payment of subcontractors. Only five MWBE survey respondents reported being paid later than 60 days.

## FINDING 11: HUB Goals

With some exceptions the 10 percent HUB goal only applies to building projects costing \$300,000 or more. State does not set separate HUB project goals. Nor does the State have a formal goal setting committee. State agencies do not reject bids for failure to meet HUB goals.

## FINDING 12: Good Faith Efforts

The State has a fifty-point system for good faith efforts to achieve HUB participation by prime contractors, with each element being worth 10 points. Staff noted that it is relatively easy to satisfy the fifty-point good faith efforts requirement by meeting two or three questions. Previously, firms had to submit good faith efforts within 72 hours of the bid, now firms are supposed to submit good faith efforts along with the bid. The State also allows self-performance in lieu of meeting goals. State staff did not recall a firm losing a bid for submitting inadequate good faith efforts documentation.

## FINDING 13: Race Neutral Programs

The State does not have a small business enterprise program. The HUB Office has supported several business development and outreach efforts. In one initiative the HUB office assigned 447 firms to five consultants who serviced 189 firms.

## FINDING 14: HUB Certification

The State HUB definition includes the disabled and the socially and economically disadvantaged. State HUB certification does not set geographic or size limitations on HUB certification. The State conducts its own certification and has conducted site visits in conjunction with its certification process. The State HUB Office makes all certification decisions on behalf of all entities, including local governments. within the State of North Carolina (except DBE certification). The State has certification reciprocity agreements with Georgia, North Carolina, South Carolina, Tennessee, and Virginia. The State Certified HUB directory had 3,873 firms in North Carolina, including 2,368 MBEs (61.1 percent) and 1,448 WBEs (37.4 percent) in 2019.

## FINDING 15: Reporting

State agencies, state universities and community colleges enter HUB utilization data into the Interscope system. Local public entities use HUBSCO for reporting HUB utilization. HUB utilization data back to FY2014-15 is on the HUB office website.

Staff interviews reflected inconsistencies in reporting HUB subcontractor utilization. Several agencies said they only collected data on intended subcontractors and not subcontractor payments. Annual HUB construction reports do not separate HUB spending by prime and subcontractor level.

Staff also differed on the efficacy of HUBSCO versus Interscope. Some staff felt that HUBSCO was more complete than Interscope but also more time consuming due to redundant data entry in HUBSCO.

## FINDING 16: Survey of HUB Coordinators

GSPC conducted a 2019 web survey, which included HUB coordinators, HUB liaisons, dedicated HUB staff, and HUB advocates who may also be purchasing staff or have other responsibilities. There were 79 completed surveys. Several themes emerged from the responses:

1. Most HUB coordinators are part time and have other duties.
2. Contract size and payments were the biggest perceived procurement barriers for HUBs.
3. Most agencies did use 10 percent HUB goals but HUB goals varied significantly amongst agencies.
4. There were concerns about the application of the good faith efforts requirements, in particular, lack of understanding of requirements, prime avoidance of requirements given the absence of penalties and lack of HUB availability. There were not many specific complaints about the 50 -point system for good faith efforts.
5. Most agencies did track and report HUB spending but several respondents had issues with Interscope.

## FINDING 17: Budget and Staffing

The FY2018-2019 budget allocated \$620,484 and eight staff for the HUB Program.

## D. Marketplace Disparities Findings

FINDING 18: A descriptive private sector analysis of the NC Market Area private sector revealed that in general, being a small, minority, woman, or disadvantaged business enterprises ("SMWDBE"), whether or not HUB certified in the North Carolina 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.

FINDING 19: Lower revenues for SMWDBEs in the North Carolina Market Area are suggestive of private sector discimination that undermines their capacity to enter the market compete with non-SMWDBEs firms for public contracting and subcontracting opportunities.

FINDING 20: Regression-based parameter estimates from the GSPC sample suggest that certified minority business enterprises, certified Woman enterprises, certified Disadvantaged Business Enterprises, and firms owned by Black Americans and American Indians are particularly harmed by percieved private sector discrimination as the estimated odds ratio for the perception of being discrimated against in the private sector is statistically significant and greater than unity relative to firms owned by non-SMWDBEs.

FINDING 21: Regression-based parameter estimates suggest that with the exception of Black and Asian/Pacific Islander American owned firms, SMWDBE status has no statistically significant effect on entering the North Carolina Market Area as a new firm.

FINDING 22: Disaggregated race/ethnicity SMWDBE status appears to have an adverse impact on securing public contracting and subcontracting opportunities with the State relative to non-SMWDBEs in general.

FINDING 23: We also find that in the North Carolina Market Area, the credit capacity of certified small business enterprises, and firms owned by American Indians is constrained in private credit markets. This
suggests that any State public contracting disparities between these type of SMWDBEs and non-SMWDBEs can potentially be explained by them facing credit market discrimination.

FINDING 24: Perhaps most indicative of racial/ethnic disparities in public contracting outcomes in the State, our regression-based parameter estimates reveal that the likelihood of SMWDBEs that are historically underutilized business enteprises, and owned by Black and Hispanic Americans never receiving a prime contract or subcontract was higher relative to non-SMWDBEs over the time period under consideration in our analysis.

FINDING 25: Coupled with our findings of perceived private sector discrimination and informal contracting network exclusion being higher for firm owners who are Black, our results are a consistent with disparities in securing prime contracts and subcontracts with the State being driven, at least in part, by private sector discrimination and public contracting network exclusion against SMWDBEs that undermines their ability to secure prime contracts and subcontracts.

FINDING 26: The existence of public contracting success disparities between SMWDBEs and non-SMWDBEs-particularly when disaggregating by the racial/ethnic status of owners-even after controlling for capacity-suggests that relative to non-SMWDBEs, SMWDBEs face barriers independent of their capacity or ability, in securing public contracts and subcontracts with the State.

## E. Anecdotal Findings

A number of issues and concerns arose from firms and stakeholders queried throughout the State of North Carolina regarding doing business with the State's Administration department.

FINDING 27: About 33\% of the participants either agreed or strongly agreed that double standards in qualifications and work performance precluded them from participating in the bidding process or winning contracts with the State. Anecdotal examples point to so-called "fronts" or "pass-throughs" in which primes set up spouses or family members in bogus DBE companies to hire on so that they meet State quotas for MBE or WBE contracting. In this way, the companies would keep all the public funds paid out for the job. Another way firms allegedly circumvented the goals set by the State was "bid shopping" - that is, getting the info on a low bid from a DBE and divulging that info to a preferred sub, thus giving that preferred firm the lowest bid. Primes were also said to hire on DBEs to meet a stated goal, only to drop the firm after winning the contract.

FINDING 28: The so-called "Good Ole' Boy" network, or an informal network, was seen as a major barrier to doing business with the State. About $51 \%$ of firms polled said they believed there existed an informal network that excluded a subset of potential contractors and subcontractors, and $45 \%$ of firms polled either agreed or strongly agreed that they were excluded. Several firms characterized the informal network as being locals that refused to work with those from outside of the State. Banks were included in this informal
network. One anecdote described a purchaser telling a potential vendor that the vendor was outside of the network, then quoting that vendor an unreasonable rate if there was an expectation to win any business with the state agency.

FINDING 29: Certification with the State was identified as a bright spot, with more than half of those polled expressing positive experiences with the process. Just under $49 \%$ of participants saw little benefit to certification with the State. Discrimination was described along racial and gender lines, as well as against businesses not originally from the State. while 57 percent said they were unaware of a registry to do business with the State.

FINDING 7: A combination of 11 of participants affirmed to have had some experience with discrimination (seldom, often or very often experienced, according to the online survey).

## F. Commendations and Recommendations

The findings of this Study show substantial disparities between the availability of minority and women owned firms by the State and the utilization of those firms in the Industry Categories in which the State does business. The State established the HUB Program in 1989 to promote the economic opportunities for HUB firms in State government contracting and procurement that will foster the growth and profitability of HUB firms. However, despite committed efforts, the HUB Program has not ameliorated the disparities for minority and women owned businesses.

The findings of this Study demonstrate that there is significant basis for an inference of discrimination in the State's public contracting, which may be current or the current effects of past discrimination. Further, GSPC's analysis of marketplace disparities shows the State has been a passive participation in marketplace discrimination toward these same groups. As a result, GSPC makes the following recommendations to assist the State in remedying the disparities found to ensure that all qualified firms located within the State are given every chance to succeed in business with the State. The study team developed the following recommendations, based on examination of the qualitative and quantitative evidence and the findings therefrom:

## Commendation and Recommendation 1: Strengthen the HUB Program

The State should be commended for the current HUB Executive Order No. 25 which provides for a 10 percent aspirational goal for the purchase of goods and services. This Study presents evidence to support the Executive Order. This Study also provides evidence for the State to enhance its race and gender-neutral policies and develop additional race and gender conscious remedial efforts. This recommendation is supported by findings of disparities in current MWBE utilization, substantial disparities in the private marketplace, evidence of discrimination in business formation and revenue earned from self-employment,
and anecdotal evidence of discrimination. The State should tailor its minority participation programs to remedy each of these specific disparities.

GSPC makes a number of recommendations below which will change the role of the HUB Office and require it to take more authority with regard to awards. In other words, GSPC proposes to give the HUB Program more teeth. But in order for it to carry out its purposes, the State should consider whether the HUB Office is positioned for this task in a number of ways:

1. Financial Resources - Administering the programs recommended by GSPC will require increased budgets for the HUB Office.
2. Staffing - The State should review whether the HUB Office has sufficient staff to properly operate the programs recommended including sufficient staff to do site visits. GSPC particularly recommends that the HUB Office have a dedicated attorney to work with it, given the increased legal requirements of the recommended program elements.
3. Enforcement Authority (it should be noted that although all agencies are required to report their HUB numbers to the HUB Office, there are a number of offices that have not reported any numbers and some that report infrequently).

## Recommendation 2: Review and Revise Home Rule Requirements

Supported by the HUB Survey, GSPC found that some of the State Law policies related to the utilization of small, minority, and women owned firms should be reviewed and revised to give local agencies more discretion, based upon their own disparity studies, to initiate policy changes.

1. The fifty (50) point Good Faith Efforts policy should be revised so that the calculation of points is not so mechanical that the purposes behind the points is lost.
2. Local governments in North Carolina should be allowed to institute small business programs without having to seek a waiver from the State government. Small business programs, particularly small business reserve programs are an excellent way to increase minority and women owned business participation as prime contractors, as well as benefit all small businesses.

## Commendation and Recommendation 3: Institute MWBE Subcontracting Goals

All MWBE groups were statistically significantly underutilized in every Industry Category. Therefore, GSPC recommends that the State institute contract-by-contract goals on formal Construction and A\&E contracts because these are the categories where there are substantial subcontracting opportunities. Contracts should

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default to the use of goals so that there is a reason why goals are not set on a project, rather than only using goals on a random basis. The MBE contract goals should be based upon the combined availability of all ethnic groups in order to gain an incentive for Prime Contractors to utilize firms owned by all ethnic minority groups. However, it is equally important for the State to monitor those contract goals and adjust them, if necessary, if the relative balance of the utilization of minority groups is out of line with the individual race/ethnicity/gender group availability.

In order to set effective and accurate contract-by-contract goals, the State should create a formal goalsetting committee which includes the user department, HUB Program, and other appointed members.

For the other categories of Professional Services, Other Services, Goods the State should set aspirational goals (which are the benchmarks that the State should achieve on an annual basis from all utilization of MWBEs whether prime contractors or subcontractors) based upon Availability and include language in its solicitations that encourages MWBE subcontractor participation. This could take the form of having the bidders tell you what they can do to get to aspirational goals through an MWBE utilization plan and then monitoring what they have promised to do. It is particularly important to encourage MWBE participation on large healthcare contracts where there are substantial local provider opportunities.

The State should set separate MBE and WBE goals. Race and gender discrimination are different from each other. The MBE contract goals should be based upon the combined availability of all ethnic groups in order to gain an incentive for Prime Contractors to utilize firms owned by all ethnic minority groups. However, it is equally important for the State to monitor those contract goals and adjust them, if necessary, if the relative balance of the utilization of minority groups is out of line with the individual race/ethnicity/gender group availability.

To effectively administer an MWBE subcontracting program for both contract-by-contract and aspirational goals, the State must institute all aspects of contract compliance:

- Assessment - An initial assessment of MWBE availability and capacity should be performed to determine what firms are actively capable of performing the required scopes or that could be prepared to perform certain scopes. Assessment can also mean sitting down with prime contractors on large awards, particularly project with aspirational goals, and assessing with them what parts of the award can be broken out for small, minority, and women owned firms.
- Outreach - The HUB Program should be commended for what it is already doing to actively invite the MWBE business community to do business with the State. But more can be done in letting MWBE firms know about upcoming opportunities, particularly those outside of Construction. The MWBE business community has to know that the State wants to do business with them and that the State is willing to work with firms to create opportunities and assist them in building capacity through supportive services.
- Certification/Verification - The State should be commended in that its HUB certification seems to work well. Firms know about certifying and it is not an unreasonably burdensome process to obtain certification. Further, the State provides encouragement and assistance to firms in getting certified. However, the State should do more site visits on firms within the State of North Carolina. It should

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also consider only certifying firms that are located within the State of North Carolina but continue to have reciprocal certification with other states. This would allow the HUB Office to better use its resources on firms within the State. This would also make the program more narrowly tailored to the findings of the Study since the State of North Carolina is the Relevant Geographic Market Area for the State.

- Procurement - The State should carefully consider the development of bid packages to ensure that each one supports maximum opportunities for MWBE participation, as a direct contractor or by other means such as subcontractor, supplier, joint venturers, or mentor-protégé. This means that the HUB and the end user departments must be brought into the procurement process as team members to actively participate in the bid development.
- Monitoring - It is essential that there is close monitoring of projects to verify that MWBE firms are actually performing the work that they were promised in the bid and that they are compensated timely and, in the amounts, committed.


## Recommendation 4: Robust Good Faith Efforts

In administering a contract-by-contract MWBE subcontractor goals program, firms do not meet the MWBE contract-by-contract goals, they must have the right to demonstrate Good Faith Efforts. The State currently has a fifty (50) point Good Faith Efforts process, that GSPC has recommended be reviewed so that the points are not mechanically obtained without displaying true good faith efforts. In fact, the prime contractor should submit documentation to show that it did bona fide outreach to MWBE firms in order to solicit bids, gave due consideration to bids received, and did not unreasonably reject qualified MWBE bids. If a firm does not meet the MWBE goals or does not satisfy Good Faith Efforts, they should be deemed nonresponsible and responsive and their cost proposal should not be opened.

## Recommendation 5: Institute Size Standards for HUB Certification

In January 1999, the United States Department of Transportation (USDOT) published its final DBE rule in Title 49, Code of Federal Regulations, Part 26 (49 CFR 26). In the course of several cases involving the DBE program, the courts found the new DBE regulations to be narrowly tailored. 4 The federal DBE program features listed in the table below are important to this characterization of a narrowly tailored remedial procurement preference program. A Size Standards requirement is one of the elements of a narrowly tailored MWBE program. See \#9 below.

[^2]
## NARROWLY TAILORED MWBE PROGRAM FEATURES

|  | NARROWLY TAILORED GOAL-SETTING FEATURES | DBE <br> Regulations |
| :---: | :---: | :---: |
| 1. | The State should not use MWBE quotas. | $\begin{array}{\|l\|} \hline 49 \text { CFR } \\ 26(43)(a) \end{array}$ |
| 2. | The State should use race- or gender-conscious set-asides only in extreme cases. | $\begin{array}{\|l\|} \hline 49 \mathrm{CFR} \\ 26(43)(\mathrm{b}) \end{array}$ |
| 3. | The State should meet the maximum amount of MWBE goals through raceneutral means. | $\begin{aligned} & 49 \text { CFR } \\ & 26(51)(\mathrm{a}) \end{aligned}$ |
| 4 | The State should use MWBE project goals only where race-neutral means are not sufficient. | $\begin{aligned} & \hline 49 \mathrm{CFR} \\ & 26(51)(\mathrm{d}) \end{aligned}$ |
| 5. | The State should use MWBE project goals only where there are subcontracting possibilities. | $\begin{aligned} & 49 \mathrm{CFR} \\ & 26(51)(\mathrm{e})(1) \end{aligned}$ |
| 6. | If the State estimates that it can meet all MWBE aspirational goals with raceneutral means, then the State should not use MWBE project goals. | $\begin{array}{\|l} \hline 49 \text { CFR } \\ 26(51)(\mathrm{f})(1) \\ \hline \end{array}$ |
| 7. | If it is determined that the State is exceeding its MWBE aspirational goals, then the State should reduce the use of MWBE project goals. | $\begin{aligned} & \hline 49 \mathrm{CFR} \\ & 26(51)(\mathrm{f})(2) \end{aligned}$ |
| 8. | If the State exceeds MWBE aspirational goals with race-neutral means for two years, then the State should not set MWBE project goals the next year. | $\begin{array}{\|l\|} \hline 49 \text { CFR } \\ 26(51)(f)(3) \end{array}$ |
| 9. | Net worth requirements to determine social and economic disadvantage. | 49 CFR 26(67) |
| 10. | If the State exceeds MWBE aspirational goals with project goals for two years then the State should reduce use of MWBE project goals the next year. | $\begin{aligned} & 49 \mathrm{CFR} \\ & 26(51)(\mathrm{f})(4) \end{aligned}$ |
| 11. | If the State uses MWBE project goals, then the State should award only to firms that made good faith efforts. | $\begin{aligned} & \hline 49 \text { CFR } \\ & 26(53)(\mathrm{a}) \end{aligned}$ |
| 12. | The State should give bidders an opportunity to cure defects in good faith efforts. | $\begin{aligned} & \hline 49 \text { CFR } \\ & 26(53)(\mathrm{d}) \end{aligned}$ |

## Recommendation 6: Small Business Reserve Program

One way to develop the capacity of MWBE firms through race and gender-neutral means is for the State to establish a Small Business Reserve Program. In this program the State would designate certain contracts, particularly focused on Construction contracts of $\$ 300,000$ and below, that can only be bid by small businesses. This is an excellent way to get firms that have only worked as subcontractors to bid as prime contractors and grow their capacity. This will ultimately result in more competition in the marketplace. But it is important to provide supportive services to firms making this transition.

## Commendation and Recommendation 7: Supportive Services

GSPC would be remiss in not mentioning that this Study occurred during the Covid-19 crisis of 2020. Many business sectors have been hard hit and the economy in general is facing an unpredictable future. Even more, many small and diverse businesses that we studied may not even exist anymore.
attorneys and Public Policy Consultants

The Brookings Institute showed that by May, 2020 small business revenues for the State of North Carolina were down 30-40\%


The Budget and Tax Center Project of the North Carolina Justice Center, also referencing the Brookings Institute said:

As North Carolina looks to stabilize its small businesses and build back better than before, state and local leaders will need to account for long-standing inequities that could jeopardize the recovery of businesses owned by people of color, prioritizing policies and models that provide accessible relief while laying the foundation for more equitable small business development in postpandemic North Carolina.

Previous experience has shown businesses owned by people of color to be particularly vulnerable to recessions, with white owned businesses significantly more likely to have survived the Great Recession than Black owned businesses. As the Brookings Institute notes, a particular facet of inequitable access to capital fueled this disparity in 2008: "Black owners were more reliant on home equity to provide capital for their business and were therefore more exposed as housing prices declined.

Inequitable access to capital continues to jeopardize the survival of these businesses during the COVID-19 recession. Initial survey data from McKinsey indicate that minority owned small businesses are more likely to be "extremely" or "very concerned" about the financial viability of
their business during the pandemic and are more likely to have conducted layoffs or furloughs or to have shut down their business. Minority owned businesses also entered the pandemic less able to withstand financial distress; Black- and Latinx owned small businesses were about twice as likely to be classified as "at risk" or "distressed" than white owned small businesses. 2

GSPC urges the State to provide robust and expansive supportive services to MWBEs in the State of North Carolina. Without the pandemic, GSPC would direct the State's focus on assisting MWBEs to grow their capacity. And while that approach is still important, it is outweighed by the need to assist MWBEs to stay in business and maintain staffing. Supportive services may be offered internally or in coordination with other agencies, and can involve everything from business incubators, estimating classes and other technical assistance, networking to capital assistance programs with local banks and Community Development Financial Institutions (CDFIs). The Small Business Administration is a likely partner in these efforts.

While GSPC presses this recommendation with some urgency, GSPC commends the State with what it is already doing through its Executive Order 143, issued by current Governor Roy Cooper, which seeks to address the disproportionate impact of Covid-19 on Communities of Color.

## Recommendation 8: Mandatory Subcontracting

GSPC recommends that the State require subcontracting on all Construction, A\&E, Professional Services, and Other Services awards on large contracts. This will assist in creating more opportunities for MWBEs.

## Commendation and Recommendation 9: Bonding and Insurance

The State should be commended for raising the thresholds for bond requirements which will assist and reducing the burden on small, minority, and women owned firms. The State should also continue to review bonding and insurance requirements on a case-by-case basis to make sure that the limits are no higher than necessary to protect the State's interests.

## Recommendation 10: Balanced Scorecard

The State should develop additional measures to gauge the effectiveness of its efforts. Possible measures include:

1. growth in the number of MWBEs winning their first award from the State;
2. growth in percentage of MWBE utilization by the State;
3. growth in MWBE prime contracting;
4. growth in MWBE subcontracting to prime contractors;
5. number of firms that receive bonding;
6. number of firms that successfully graduate from the MWBE program;
7. number of graduated firms that successfully win State projects;
8. percentage of MWBE utilization for contracts not subject to competitive bidding requirements;
9. growth in the number of MWBEs utilized by the State; and
10. number of joint ventures involving MWBEs.

## Recommendation 11: Program Applied Wherever State Funds Expended

Although local governments may have their own MWBE programs as a result of their own disparity studies, whenever funds are expended by the State (regardless of funding source, except federal funding) or State resources are utilized, vendors should be required to follow the State's HUB Program guidelines and goals. This would include healthcare providers and $\mathrm{P}-3 \mathrm{~s}$.

## Recommendation 12: Data Reform

GSPC has a difficult time collecting the data needed for this Study and makes the following recommendations for future data maintenance:

- The State should maintain a centralized electronic system that tracks all awards made by the State.
- Currently there is a centralized system for Purchasing and Contracts, but not for other procurement areas.
- Also, the community colleges and universities do not all generally track awards at all. If they do, it is in their isolated system that only they have access to. With 58 Community Colleges and 21 Universities and related institutions, the State should have direct access to award data. With regard to payment data, the State Controller's Office does not have direct access to payment data from the 58 Community Colleges and 21 Universities and related institutions.
- The State should maintain a centralized reporting system that tracks payments to subcontractors.
- Particularly with the recommendation that the State initiate a subcontractor goal, the State will have to track all subcontractors in order to monitor this program.


## III. LEGAL ANALYSIS

## A. Introduction

Disparity Studies are not conducted in a vacuum. There is important historical background guiding the advent and development of disparity studies, which background effectively began in the United States Supreme Court thirty years ago and has been carried forward to the present time by federal and state courts faced with legal challenges to M/WBE (and DBE) programs and policies.

The parameters of the current study by Griffin \& Strong, P.C. (GSPC) of the program administered by the State of North Carolina (through the Department of Administration), and the various methodologies employed therein, are informed by the applicable case law and decades of experience in all aspects of the fields of inclusion programs and disparity studies.

Thus, GSPC respectfully provides in this Legal Analysis chapter of the overall study a discussion of the bedrock judicial decisions anticipating and inviting increased use of disparity studies, and a deeper dive into the legal considerations and related evidentiary requirements for sustaining M/WBE programs in the face of a challenge on constitutional grounds. Also included in this analysis are significant decisions from the United States Court of Appeals for the Fourth Circuit, as these decisions demonstrate the continuing significance of the featured United States Supreme Court precedent and highlight the legal foundation under which any challenge to North Carolina's Historically Underutilized Business (HUB) program will be analyzed. ${ }^{5}$

GSPC also partnered with Debra Ragin Jessup of the Forrest Firm in Winston-Salem, North Carolina to ensure commensurate local experience and familiarity with any unique aspects of North Carolina law as it may relate to HUB or M/WBE programs and administration.

## B. Historical Development of the Relevant Law Regarding 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 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. 2 d 854 (1989), and subsequent judicial decisions have

[^3]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." ${ }^{6}$

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 City 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 ethnicitybased 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

[^4]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.

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. ${ }^{7}$

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. ${ }^{8}$ 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 Fourth Circuit's Decision in H.B Rowe v. Tippett

Having the benefit of the Supreme Court's thinking in Croson and Adarand, the Fourth Circuit addressed the constitutionality of North Carolina's M/WBE statute governing state-funded transportation projects (N.C. Gen. Stat. § 136-28.4 (1990)) in H.B. Rowe Company, Inc. v. W. Lyndo Tippett, 615 F.3d 233 (4th Cir. 2010). ${ }^{9}$
${ }^{7}$ Croson, 488 U.S. at 500.
${ }^{8}$ 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. Pena, 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. The program was ultimately upheld by the Tenth Circuit on remand in Adarand Constructors, Inc. v. Slater, 228 F.3d 1147 ( $10^{\text {th }}$ Cir. 2000) (Adarand III).
${ }^{9}$ In contrast, the current program under consideration is promulgated under Chapter 143, Article 3 of the North Carolina General Statutes.

The legal challenge in H.B Rowe was an outgrowth of an earlier state court challenge to the statute in Dickerson Carolina, Inc. v. Harrelson, 443 S.E.2d 127 (N.C. Ct. App. 1994, appeal dismissed, 448 S.E.2d 520 (N.C. 1994). The Dickerson case was deemed moot and dismissed because the State had suspended application of 136-28.4 in the face of the constitutional challenge, commissioning a disparity study to determine minority utilization. Id. H.B. Rowe addressed the subsequent legal challenge to the amended statute.

Denied a contract because of its failure to demonstrate good faith efforts to meet participation goals for minority and women owned subcontractors, H. B. Rowe Company, a prime contractor, brought suit asserting that the goals set forth in § 136-28.4 violated the Equal Protection Clause. After extensive discovery and a bench trial, the District Court upheld the challenged statutory scheme as constitutional both on its face and as applied.

The Fourth Circuit Court of Appeals affirmed, finding that the State produced a "strong basis in evidence" justifying the statutory scheme on its face and as applied to African American and American Indian subcontractors, and that the State further demonstrated that the scheme was narrowly tailored to serve its compelling interest in remedying discrimination against those racial groups. The Court of Appeals did not, however, agree with the District Court that the same was true as applied to other minority groups and women owned businesses.

Reviewing the results of the disparity study relied upon by the State, the Court observed that (1) the State's use of a goals program for inclusion of African-American, Native-American, and non-minority women owned businesses was supported by a statistically strong basis, and that (2) the newly revised North Carolina statute which called for frequent goal setting was constitutional. The Court of Appeals focused prominently on the fact that the State's program had been going on since 1983 and had only achieved the inclusion numbers adduced in the 2004 study performed by the commissioned national researcher. ${ }^{10}$

The importance of this case is that it solidified a trend that began in the other appellate courts of this country. When presented with a viable challenge to a state's statute as it concerns M/WBE programs, the program not only must adhere to the requirements of Croson at inception, but also when the program's continued viability is at issue. ${ }^{11}$

Such continuation must be well supported by more than just conjecture as to its necessity. There needs to be statistically sound collection of data from appropriate sources; testing of that data once collected to ensure high confidence; and anecdotal corroboration of findings to disprove other explanations for apparent disparities. ${ }^{12}$ These matters are addressed at length in the below Expanded Legal Analysis, which

[^5]
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detailed analysis is intended to assist the State of North Carolina evaluate its program, adjust it (if appropriate), and be properly positioned to defend it against legal challenge.

As noted, decisions by the Fourth Circuit, like H.B. Rowe, are particularly important when addressing/evaluating the program implementation and administration by the State of North Carolina.

An Expanded Legal Analysis can be found in Appendix A.

## IV. PURCHASING POLICIES, PRACTICES, AND PROCEDURES REVIEW

The objective of the "Purchasing Practices, Policies, and Procedures" chapter of this study is to review the stated policies and practices of the State of North Carolina ("the State") in relation to purchasing and programs to enhance inclusion of Minority and Woman owned businesses.

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 Minority and Woman Business Enterprises ("MWBEs") in general and Historically Underutilized Businesses (HUBs) in particular, to obtain work with the State.

## A. Document Review and Personnel Interviews

GSPC reviewed State of North Carolina statutes, State ordinances, previous State disparity studies, past and present State Historically Underutilized Business (HUB) plans and recommendations, State purchasing manuals, State bid and proposal solicitations, past and present State budgets, legal memoranda, bidder communications with the State, and related documents. GSPC conducted three sets of policy interviews in 2019 with officials that engage regularly in purchasing, contracting or HUB program implementation from the following State entities:

## State Agencies

> Assistant Attorney General, Department of Justice
> Central Engineering, Department of Public Safety
$>$ Department of Information Technology
$>$ Deputy Secretary for Advocacy, Department of Administration
$>$ Deputy Secretary for Asset Management, Department of Administration
> Deputy Secretary for Service Operations, Department of Administration
> Division of Purchase \& Contract, Department of Administration
> Division of Emergency Management, Department of Public Safety
> General Counsel, Department of Administration
> Office for Historically Underutilized Businesses
> State Construction Office
Colleges and Universities
> North Carolina State University (NC State)
$>$ North Carolina Central University (NCCU)
> North Carolina Community College System Office
> University of North Carolina (UNC)
> University of North Carolina System Office
> Wake Tech County Community College

In addition, a survey was sent to HUB coordinators across the State in September 2019. The results of that survey are reported in Appendix F.

## B. Overview of Purchasing

## 1. Institutions in the Study

This study covers North Carolina Cabinet Agencies, Council of State Agencies, State Universities and North Carolina community colleges. ${ }^{13} \mathrm{~A}$ list of these institutions is contained on Page 9 of his report.

## 2. Delegations

The maximum authorized dollar limits (delegation) for purchases of commodities, printing, and services by agencies are as follows:

- All agencies (except universities) have a delegation of $\$ 10,000$, unless an increase is approved by the State Purchasing Officer, up to a maximum of \$25,000.
- All agencies (except universities) have an Information Technology (IT) delegation of \$25,000, unless an increase is approved by the State Chief Information Officer.
- Each university's benchmark is set by the University Board of Governors, up to a maximum of $\$ 500,000$.

Transactions greater than the general delegation are handled by the State Purchasing Officer, Division of Purchase \& Contract.

There are Special Delegations for all agencies in the following areas (competition is to be attempted where available).
(1) Minor Repairs (Non-Construction)
(2) Feed

[^6](3) Animals, Poultry and Fish
(4) Athletic Apparel
(5) Maintenance of Aircraft
(6) Playground Equipment (Structures)
(7) Ready-Mix Concrete

There are also Special Delegations for Information Technology
The following do not have to be bought through Purchasing and Contracting (P\&C):
(1) purchase of liquor;
(2) perishable articles such as fresh meats;
(3) published books, manuscripts, subscriptions to printed material, packaged copyrighted software products, and like material;
(4) services provided by individuals by direct employment contracts with the State;
(5) public utility services (gas, water and electricity);
(6) telephone, telegraph and cable services;
(7) services provided which are subject to published tariff rates;
(8) services which are merely incidental to the purchase of supplies, materials or equipment such as installation services;
(9) contracts for construction of and structural changes to public buildings;
(10) personal services provided by a professional individual on a temporary or occasional basis, including (by way of illustration, not limitation) those provided by a doctor, dentist, attorney, architect, professional engineer, scientist or performer of the fine arts and similar professions;
(11) services provided directly by an agency of the State, federal or local government, or their employees when performing the service as a part of their normal governmental function. ${ }^{14}$

The following do not have to be purchased through Office of State Information Technology Procurement (SITP):
(1) Packaged copyrighted software products (i.e., off-the-shelf, retail-type purchases);
(2) Services provided by individuals through direct employment contracts with the State;

[^7](3) Services that are merely incidental to the purchase of supplies, materials, or equipment such as installation services;
(4) Personal services provided by a professional individual (person) on a temporary or occasional basis;
(5) Services provided directly by an agency of the State, federal or local government, or their employees when performing the service as part of their normal governmental function; and
(6) Information technology subscriptions for printed materials or online services. ${ }^{15}$

## C. Waiver of Competition

Purchases made by the State are governed by competitive bidding procedures provided for in Sections 143 of the North Carolina General Statutes and State internal policies. Competitive bidding is not required in the following cases:
(a) Where a needed product or service is available from only one source of supply;
(b) Where emergency action is indicated;
(c) Where competition has been solicited but no satisfactory offers received;
(d) Where standardization or compatibility is the overriding consideration;
(e) Where a donation predicates the source of supply;
(f) Where personal or particular professional services are required;
(g) Where a particular medical product or service, or prosthetic appliance is needed;
(h) Where a product or service is needed for the blind or severely disabled and there are overriding considerations for its use;
(i) Where additional products or services are needed to complete an ongoing job or task;
(j) Where products are bought for "across the counter" resale;
(k) Where a particular product or service is desired for educational, training, experimental, developmental or research work;
(l) Where equipment is already installed, connected and in service, and it is determined advantageous to purchase it;

[^8](m) Where items are subject to rapid price fluctuation or immediate acceptance;
(n) Where there is evidence of resale price maintenance or other control of prices, lawful or unlawful, or collusion on the part of companies which thwarts normal competitive procedures;
(o) Where the amount of the purchase is too small to justify soliciting competition or where a purchase is being made and a satisfactory price is available from a previous contract;
(p) Where the requirement is for an authorized cooperative project with another governmental unit(s) or a charitable Nonprofit organization(s); and
(q) Where a used item(s) is available on short notice and subject to prior sale. ${ }^{16}$

## D. Procurement Methods

## 1. Small Purchases

Small Purchases are those commodities and services $\$ 5,000$ or less not covered by a State term contract. ${ }^{17}$ Agencies make their own rules for small purchases. The use of competitive quotes or bids is preferred. Solicitations can be through e-quote, written informal quotes, or fax/email quotes. For purchases between $\$ 5,000$ and $\$ 10,000$ competition is to be solicited and e-quotes, RFPs and IFBs can be used.

For purchases above $\$ 10,000$ competition is solicited. Procurements are sent to the Division of Purchase \& Contract or the State Information Technology Purchasing for processing and advertising through the State Interactive Purchasing System (IPS) is required. This is same process for University procurements over \$25,000.

## 2. Procurement Cards

Procurement cards transactions are processed outside the State's electronic procurement system and are limited to $\$ 2,500$ per transaction. ${ }^{18}$ The State has term contract for a procurement card services with Bank of America.

[^9]
## 3. Term Contracts

Statewide Term Contract (requirements contracts" or "indefinite quantity contracts") are used to satisfy normal requirements for a goods or service for a particular period of time based on predicted usage. Commodities on term contracts are competitively bid. ${ }^{19}$ Cabinet agencies and universities are required to use term contracts. There can be multiple vendors on a state contract, but the vendors have to be able to cover handle the whole state.

There have been some concerns expressed by vendors to staff about the difficulty of HUBs winning state contract awards. The State does indicate which state term contracts are held by HUB vendors. The table below shows the eleven state term contracts held by HUB-certified firms in 2019. ${ }^{20}$ Certified HUBs held 11 ( 13.1 percent), of the 84 state term contracts on the list. Nine of the eleven were mandatory, while 55 of the overall pool of term contracts were mandatory. Of these eleven term contracts, two were held exclusively by a HUB certified firm and on other nine term contracts the HUB vendor was part of a group of firms awarded the State contract.

Table 8: State Term Contracts held by HUB-Certified Firms 2019

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| Good/Service | End Date | Mandatory/Convenience |
| :--- | :---: | :---: |
| HVAC Air Filters | $6 / 23 / 2022$ | Mandatory |
| HVAC Air Filters | $8 / 27 / 2019$ | Mandatory |
| Condoms | $6 / 30 / 2020$ | Mandatory |
| Diesel | $6 / 1 / 2020$ | Mandatory |
| Gasohol | $6 / 1 / 2020$ | Mandatory |
| Regular Conventional Non- <br> Ethanol Unleaded Gasoline | $9 / 4 / 2021$ | Mandatory |
| Microscopes | $3 / 14 / 2021$ | Convenience |
| Office Supplies | $6 / 30 / 2021$ | Mandatory |
|  <br> Equipment | $8 / 12 / 2021$ | Mandatory |
| Internal Audit Staffing <br> Services | $8 / 31 / 2019$ | Convenience |
| Pharmaceutical Returned <br> Goods Processing | $6 / 30 / 2020$ | Convenience |

Source: Division of Purchase and Contract

[^10]Software IT is procured through statewide term contracts that the State Department of Information Technology administers. There are 31 statewide IT contracts. ${ }^{21}$ There is an IT staffing contract with 423 subcontractors and one prime vendor. State staff reported about 1opercent HUB participation of the State IT staffing contract. Data on HUB utilization on State term contracts is contained in the Statistical Chapter below.

## 4. Contracting for Consultant Services (Competitive Proposals)

The following is the procedure for competitive proposals for consultants:
(a) Prepare a Request for Proposals and distribute prospective service providers.
(b) Circulate the Request for Proposals to such sources of consultant services as may be identified by Purchase and Contract as well as all sources identified by the requesting agency.
(c) Publicly open all proposals received.
(d) forward the award recommendation and supporting documentation to Purchase and Contract for review and then to the Governor's office for approval. ${ }^{22}$

Negotiated Consultant Contracts submit the proposed contract(s) to P\&C for review and approval prior to execution.

## 5. Best Value Procurement.

Under Best Value procurement an evaluation committee is established and it may evaluate factors such as: "Quality factors; Delivery and implementation schedule; Maximum facilitation of data exchange and systems integration; Warranties, guarantees, and return policies; Vendor financial stability; Consistency of the proposed solution with the State's strategic program direction; Effectiveness of business solution and approach; Industry and program experience; Prior record of vendor performance; Vendor expertise with similar projects; Proven development methodologies and tools; and Innovative use of technologies." ${ }_{23}$ HUB participation is not listed as a factor in sample scoring.

The following information describes the process for application of the Best Value procurement methodology: Clarifications, communications, and negotiations can be conducted with the vendor after receipt of offers. Award is made to the responsive and responsible vendor, whose offer is determined to be

[^11]the most advantageous to the State, using all the established evaluation factors. The Best Value procurement method is used to procure information technology. Purchasing and Contracts uses Best Value or Bifurcation.

## 6. Solicitation Requirements

Formal competitive bids are not required for solicitations for commodities, services or printing, not covered by a term contract, involving an expenditure of less than 5,000 or less is considered a (small purchase). ${ }^{24}$ The State Purchasing Manual suggests multiple quotes are to be sought for small purchases but does not expressly mention outreach to HUBs for small purchases. Competition is to be solicited for purchases between $\$ 5,000$ and $\$ 10,000$ (unless bought off term contract or Correction Enterprises or from a Nonprofit Work Center for the Blind and the Severely Disabled). Purchases between \$10,000 and \$25,000 (and over the agencies delegation,) must be sent to P\&C or SITP for processing in addition to seeking competition. The Interactive Purchasing System (IPS) must be used to advertise formal solicitations over $\$ 10,000$. This is same process for University procurements over $\$ 25,000$.

All solicitations for "supplies, materials, printing, equipment and contractual services" with an estimated value greater than $\$ 1$ million must be reviewed by the State Attorney General.

## 7. Preferences

Agencies may purchase goods and services directly from a nonprofit work center for the blind and severely disabled as long as the purchase does not exceed the agency delegation, and the goods or services are not available under a State term contract. ${ }^{25}$

All agencies give preference to the Department of Public Safety Correction Enterprises products. This preference requirement also applies to all community colleges (except printing). Delegation limits do not apply to products purchased from Department of Public Safety Correction Enterprises. ${ }^{26}$

## E. Construction

The State Construction Office oversees the solicitation, bidding and contracting of construction and renovation of state buildings, with some exceptions. University projects with a budget of less than $\$ 2,000,000$ are exempt from State Construction architecture and engineering oversight. ${ }^{27}$ Community

[^12]college projects under $\$ 500,000$ are not subject to oversight by the State Construction Office. ${ }^{28}$ While Community Colleges are locally owned, they are State supported and are also included by statute in coverage by the State Construction Manual.

## 1. Informal and Informal Construction Contracts

Informal construction contracts are under \$500,000 and do not require public advertisement, bid bonds, payment bonds or performance bonds. ${ }^{29}$ Three bids are not required for informal construction contacts, but three bids should be solicited. Formal construction contracts, over $\$ 500,000$, require public advertising, at least three bids and bonds. Construction plans are to be made broadly available.

## 2. Construction Methods

The State can award construction contracts to erect, construct, alter, or repair buildings using any of the following methods:
(1) Separate-prime bidding. The contracts awarded to the lowest responsible, responsive bidders, taking into consideration quality, performance, the time for performance of the contract, and compliance with G.S. § 143-128.2.
(2) Single-prime bidding. All bidders in a single-prime project identify on their bid the contractors they have selected for the branches of work for: (a) Heating, ventilating, and air conditioning; (b) Plumbing; (c) Electrical; and (d) General. The contract is awarded to the lowest responsible, responsive bidder, taking into consideration quality, performance, the time for performance of the contract, and compliance with G.S. 143-128.2.
(3) Dual bidding permits both single prime and separate prime bids to be received together on one project and allows the Owner to contract with the lowest separate prime bids OR the lowest single prime bid.
(4) Construction management at risk The CMR is selected on a qualification based selection generally at the beginning of the design process. the CMR provides a guaranteed maximum price acting as a construction manager to deliver the project. The CMR publicly advertises and prequalifies all "first tier subcontractors," complies with the State HUB requirements and publicly opens all bids. ${ }^{30}$
(5) Alternative contracting methods. Can ask for alternative method from SCO, such as design-build. The State Building Commission cannot waive bidding in these instances.

[^13](6) Design-build contracts.
(7) Design-build bridging contracts
(8) Public-private partnership construction contracts. $3^{31}$

This section does not apply to: Building construction of \$300,000 or less and, building construction by the University of North Carolina of \$500,000 or less.

The State does make frequent use of CMAR, particularly for large projects over $\$ 20$ million. State universities almost always use CMAR for projects above over $\$ 20$ million. Staff reported that some HUB firms have won CMAR projects. Staff also reported that CMAR projects have more flexibility in achieving HUB participation.

There is not much use of design-build amongst State agencies outside of universities, but there has been a growth in public-private partnerships. Only the public part of the public-private partnership has HUB requirements.

## F. Design Services

North Carolina selection of "architectural, engineering, surveying, construction management at risk services, design-build services, and public-private partnership construction" services is "on the basis of demonstrated competence and qualification for the type of professional services required without regard to fee other than unit price information at this stage," followed by negotiation of a fees. 32 "Selection of a firm under this Article shall include the use of good faith efforts by the public entity to notify minority firms of the opportunity to submit qualifications for consideration by the public entity."

## 1. Designer Selection for Minor Projects

There are no statutory requirements for design services on project less than \$500,000. Public advertising is not required. Selection of the designer is determined by the Owner Capital Projects Coordinator subject to the approval of the SCO. 33

Universities and Community Colleges follow their own procedures for the selection of designers for minor projects.

[^14]
## 2. Designer Selection for Major Projects

Procurement of design services for architectural, engineering and surveying projects greater than \$500,000 must meet the following requirements:

1. Public advertisement on the State of North Carolina IPS website for a period of at least 15 days.
2. Qualifications based selection process without regard for fee, followed by negotiation of the scope of work, contract requirements, and design fee.
3. Good faith efforts by the Owner to notify minority firms of the opportunity to submit qualifications for consideration.
4. Preference of North Carolina resident firm over non-resident firm. 34

In selecting the three firms to be presented to the State Building Commission (SBC), the pre-selection committee should take into consideration the following ten factors identified in state regulations as:
a) Specialized or appropriate expertise in the type of project.
b) Past performance on similar projects.
c) Adequate staff and proposed design or consultant team for the project.
d) Current workload and State projects awarded.
e) Proposed design approach for the project including design team and consultants.
f) Recent experience with project costs and schedules.
g) Construction administration capabilities.
h) Proximity to and familiarity with the area where project is located.
i) Record of successfully completed projects without major legal or technical problems.
j) Other factors that may be appropriate for the project. 35

It can be noted that neither past nor proposed HUB utilization is not one of the factors.

The State does not generally use Limited Service Agreements for designer services like NCDOT. The State does use Fixed Term Contract or Annual Service Agreement. In these agreements an Owner can use services of a designer for projects under $\$ 300,000$ for the period of one year. No contract fee can exceed $\$ 150,000$

[^15]in total volume per year and no fee can exceed $\$ 36,000$ per project. These contracts can be extended for one additional year.

G. Bonding, Insurance, and Prompt Payment

## 1. Bonding Requirement

The state requires bid bonds or cash in the amount of 5 percent of the total bid on formal construction contract. ${ }^{36}$ The State requires performance and payment bonds, for 100 percent of the contract on formal prime construction contracts over $\$ 500,000 .{ }^{37}$ If the total amount of construction contracts awarded for any one project exceeds $\$ 500,000$, performance and payment bonds are required from any contractor or construction manager at risk with a contract more than $\$ 50,000$.

Staff said bonding remains a problem for some HUB firms.

## 3. Insurance

State standard state mandatory insurance requirements are as follows:
As a minimum (if applicable), the contractor shall provide and maintain the following coverage and limits.
(a) Worker's Compensation as well as employer's liability coverage with minimum limits of $\$ 150,000$, covering all of contractor's employees who are performing i any work under the contract.
(b) General Liability Coverage on an occurrence basis in the minimum amount of $\$ 500,000$.
(c) Automobile Liability Insurance, to include $\backslash$ minimum combined single limit $\$ 150,000$ for bodily injury and property damage; $\$ 150,000$ uninsured/under insured motorist; and $\$ 1,000.00$ medical payment ${ }^{38}$

State staff reported not hearing many vendor complaints about State insurance requirements.

## 4. Prompt Payment

On public construction contracts under G.S. § 143, "the balance due prime contractors shall be paid in full within 45 days after respective prime contracts of the project have been accepted by the owner, certified by the architect, engineer or designer..., or occupied by the owner and used for the purpose for which the

[^16]project was constructed, whichever occurs first. ${ }^{39}$ The State must pay interest on the remaining balance to a prime contractor beginning 46 days after project completion. State law requires that a subcontractor be paid no later than seven days after the prime contractor was paid. 40 A prime contractor must also pay interest on the unpaid balance to a subcontractor.

State staff report that there are still some complaints about prompt payment of subcontractors. Vendor concerns regarding prompt payment are reported in the survey results in the anecdotal chapter.

## H. Supplier Registration, Prequalification, and Licensing

## 1. Prequalification

Bidders may be pre-qualified for any public construction project,41 however there is no standing prequalification list as with NCDOT. As noted above, under the CMAR procurement method, first tier subcontractors must be prequalified. If an Agency seeks to pre-qualify bidders they must use the SCO "Prequalification of General Contractor" forms.

## 2. Vendor Registration

Vendors register through the NC electronic Vendor Portal (eVP). The eVP is a one-stop shop to register for Interactive Purchasing System (IPS), the Statewide Uniform Certification (SWUC) Program and North Carolina e-procurement. Vendors on eVP can receive email notifications of procurement opportunities through the Interactive Purchasing System (IPS). IPS advertises solicitations from all state agencies, community colleges, universities, as well as public schools and some local governments. Vendors register by commodity and construction codes. The eVP registration also allows companies to receive purchase orders from government agencies using the North Carolina E-Procurement System. Scores of state agencies and local government agencies use the e-procurement system. $4^{2}$

## 3. Licensing

Under State law, a licensed general contractor must oversee all projects costing more than $\$ 30,000$, unless the local government is acting as its own general contractor. 43 There are three classifications of general contractor licenses:

- Unlimited license -- entitled to act as general contractor without single project value

[^17]- Intermediate license -- entitled to act as general contractor for any single project with a value of up to $\$ 1,000,000$
- Limited license -- entitled to act as general contractor for any single project with a value of up to 500,000. ${ }^{44}$


## I. HUB Certification

## 1. HUB Definition

For the State the term "historically underutilized business" means a business that meets all of the following conditions:
(1) At least fifty-one percent (51\%) of the business is owned by one or more persons who are members of at least one of the groups set forth in subsection (b) of this section, or in the case of a corporation, at least fifty-one percent (51\%) of the stock is owned by one or more persons who are members of at least one of the groups set forth in subsection (b) of this section.
(2) The management and daily business operations are controlled by one or more owners of the business who are members of at least one of the groups set forth in subsection (b) of this section. 45

For the State the groups are
(1) Black. - A person having origins in any of the Black racial groups of Africa.
(2) Hispanic. - A person of Spanish or Portuguese culture having origins in Mexico, South or Central America, or the Caribbean islands, regardless of race.
(3) Asian American. - A person having origins in any of the original peoples of the Far East, Southeast Asia, Asia, Indian continent, or Pacific islands.
(4) American Indian. - A person having origins in any of the original Indian peoples of North America.
(5) Female.
(6) Disabled. - A person with a disability as defined in G.S. 168-1 or G.S. 168A-3.

[^18](7) Disadvantaged. - A person who is socially and economically disadvantaged as defined in 15 U.S.C. § $637 \cdot{ }^{6}$

The State HUB definition does not set geographic or size limitations on HUB certification. The State definition of HUB is also not limited by any procurement category. In the HUB certification process, ethnicity takes precedence over gender.

The State conducts its own certification and has conducted site visits in conjunction with its certification process. The HUB Office will call a firm is there are questions and will decertify the firm if there is no response. The firm has the right to appeal decertification, although HUB staff reported that there have been no recent appeals of decertification. However, the State also relies on local agencies if there is a question about fronts. HUB certification lasts for four years. 47 HUB certified firms must provide an Annual Status Update Affidavit.

The North Carolina General Assembly passed the Statewide Uniform Certification legislation in 2007 with an implementation date of July 2009Under this statute the State HUB Office makes all certification decisions on behalf of all entities, including local governments. within the State of North Carolina with the exception of DBE certification which is provided by the NC Department of Transportation in accordance with the federal DBE guidelines.

The State has certification reciprocity agreements with Georgia, North Carolina, South Carolina, Tennessee and Virginia. The State certification application asks for certification documents from NCDOT DBE, Women's Business Enterprise National Council, SBE - US SBA (Small Business Administration) VeteranOwned Business, US Department of Housing and Urban Development, Section 3 National Minority Supplier/Diversity Council and other states.

The certification application asks about capacity information, such as construction licenses and equipment owned or leased, company's largest contract award, bonding threshold, number of monthly bids, and number of employees and laborers. Vendors enter their own capacity and work code information. Some State staff expressed concern that that the on-line HUB certification directory was not as user friendly as the NCDOT DBE directory because vendors entered work type information for which the firm lacked experience. Firms were seeking to break into new areas. The HUB Office indicated that they have undertaken education efforts to reduce this practice. The certification system now only allows firms to enter three work codes.

[^19]The HUB Office does not certify Disabled Business Enterprise or Nonprofit Work Center for the Blind and Severely Disabled. These categories are self-certified.

## 2. State Certified Diversity Business Directory

The State Certified HUB Directory is posted on the State website. The table below shows the results of a download of certified firms in North Carolina in June 2019. The State Certified HUB directory had 3,873 firms in North Carolina, including 2,368 MBEs ( 61.1 percent) and 1,448 WBEs ( 37.4 percent). There were 4,403 firms in the database as a whole, and thus 630 firms located outside of the State of North Carolina. The largest minority group was African American with 1,748 firms. From September 2018 to June 2019 there were 441 new certifications and 412 recertifications, including 137 new certifications in disaster countries (counties??. 48

Although the State did not have an SBE program during the Study Period, there were 3,225 firms with SBE certification based upon federal standards. Only 648 of the HUBs in North Carolina did not also have an SBE certification. All of the SBEs also had HUB certification. There were 55 disabled firms and 2 socially and economically disadvantaged firms amongst North Carolina HUB firms.

Table 9: North Carolina State HUB Certification, 2019
North Carolina State Disparity Study

| Certification Categories | Number | Percent |
| :--- | :---: | :---: |
| Black | 1,748 | $45.1 \%$ |
| Hispanic American | 333 | $8.6 \%$ |
| Asian American | 157 | $4.1 \%$ |
| American Indian | 130 | $3.4 \%$ |
| Total MBE | $\mathbf{2 , 3 6 8}$ | $\mathbf{6 1 . 1 \%}$ |
| Nonminority Female | 1,448 | $37.4 \%$ |
| Disabled | 55 | $1.4 \%$ |
| Total Certified HUBs | $\mathbf{3 , 8 7 3}$ | $\mathbf{9 9 . 9 \%}$ |

Source: North Carolina HUB Directory, June 2019
North Carolina Governor, Roy Cooper, recently executed Executive Order 143 through which the HUB Office has been charged with creating a Small Business Enterprise (SBE) program to enhance opportunities for small historically underutilized businesses.

[^20]
## J. Race Conscious HUB Program Elements.

North Carolina law states that, "It is the policy of this State to encourage and promote the use of small contractors, minority contractors, physically handicapped contractors, and women contractors in State purchasing of goods and services." ${ }^{49}$ Similar language is in State solicitations. $5^{\circ}$ The State has a HUB goals program in construction. The current HUB Executive Order No. 25 also provides for a 10 percent aspirational goal for the purchase of goods and services by executive agencies. The State does not have race conscious bid preference or set asides.

There is a HUB tie-breaker provision in the State procurement manual giving the preference to a HUB certified firm over a North Carolina firm in the event of a tie bid. ${ }^{51}$. State staff could not recall this provision impacting a contract award.

## 1. HUB Goal Setting

## North Carolina state statutes provides that,

The State shall have a verifiable ten percent (10\%) goal for participation by minority businesses in the total value of work for each State building project, including building projects done by a private entity on a facility to be leased or purchased by the State. On State building projects and building projects subject to the State goal requirement, the Secretary shall identify the appropriate percentage goal, based on adequate data, for each category of minority business. $5^{2}$

With some exceptions the 10 percent goal only applies to building projects costing $\$ 300,000$ or more. State does not set separate HUB project goals. Nor does the State have a formal goal setting committee such as is present at NCDOT, or staff.

Some universities have set goals as high as thirty percent. However, like State agencies, the universities do not reject bids for failure to meet the goals.

There is no data available on the distribution of HUB goals submitted by primes on State projects. Presumably this is because of the standard 10 percent HUB goal. And no data was available on rejected bids for failure to satisfy HUB goals.

[^21]
## 2. Executive Order No 25.

The North Carolina governor's office has issued several Executive Orders regarding the HUB program over the past two decades: Executive Order No. 25 (November 2017), Executive Order No. 24 (September 2013), Executive Order No. 13 (May 2009), Executive Order No. 106 (December 2008), and Executive Order No. 150 (April 1999). As noted above Executive Order No. 25 provides that:
$\ldots$..it is expected that each agency will endeavor to obtain ten percent $(10 \%)$ of the State's purchases of goods and services, as measured in dollars, from HUB s; and ...it is expected that this goal of obtaining ten percent (I $0 \%$ ) of the State' s purchases from HUBs shall be adjusted in line with any disparity study finding s as recommended by the HUB Office and the Civil Rights Office; ${ }^{53}$

## 3. Good Faith Efforts -Public Entities

The State has good faith efforts for public entities and for prime contractors. State statute provides that before awarding a contract, a public entity shall do the following:
(1) Develop and implement a minority business participation outreach plan to identify minority businesses that can perform public building projects and to implement outreach efforts to encourage minority business participation in these projects to include education, recruitment, and interaction between minority businesses and nonminority businesses.
(2) Attend the scheduled prebid conference.
(3) At least 10 days prior to the scheduled day of bid opening, notify minority businesses that have requested notices from the public entity for public construction or repair work and minority businesses that otherwise indicated to the Office of Historically Underutilized Businesses an interest in the type of work being bid or the potential contracting opportunities listed in the proposal. The notification shall include the following:
a. A description of the work for which the bid is being solicited.
b. The date, time, and location where bids are to be submitted.
c. The name of the individual within the public entity who will be available to answer questions about the project.
d. Where bid documents may be reviewed.
e. Any special requirements that may exist.

[^22](4) Utilize other media, as appropriate, likely to inform potential minority businesses of the bid being sought. ${ }^{54}$

On State Construction Projects, the State Construction Office must:
(1) Attend the scheduled pre-bid conference, if requested, to clarify requirements of the General Statutes regarding minority-business participation, including the bidders' responsibilities.
(2) Review the apparent low bidders' statutory compliance with the requirements listed in the proposal, if the bid is to be considered as responsive, prior to award of contracts. The State may reject any or all bids and waive informalities pursuant to G.S. 143-129.
(3) Review minority business requirements at the Preconstruction conference.
(4) Monitor contractors' compliance with minority business requirements in the contract documents during construction.
(5) Resolve protests and disputes arising from implementation of the minority business participation outreach plan, in conjunction with the HUB Office. 55

The 10 percent goal also applies on informal construction contracts however the agency has the responsibility to make a good faith effort to solicit Bids and to attain the HUB goal. ${ }^{56}$ Documentation and data on HUB participation data on informal projects must be reported annually to the HUB Office.

## 4. Good Faith Efforts Requirements, Prime Contractors

The State has a fifty-point system for good faith efforts to achieve HUB participation by prime contractors, with each element being worth 10 points. Good faith efforts include:
(1) Contacting minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor or available on State or local government maintained lists at least 10 days before the bid or proposal date and notifying them of the nature and scope of the work to be performed.
(2) Making the construction plans, specifications and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bid or proposals are due.
(3) Breaking down or combining elements of work into economically feasible units to facilitate minority participation.

[^23](4) Working with minority trade, community, or contractor organizations identified by the Office of Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses.
(5) Attending any pre-bid meetings scheduled by the public owner.
(6) Providing assistance in getting required bonding or insurance or providing alternatives to bonding or insurance for subcontractors.
(7) Negotiating in good faith with interested minority businesses and not rejecting them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing.
(8) Providing assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisting minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit.
(9) Negotiating joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible.
(10) Providing quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands. 57

For first tier subcontractors under construction management at risk the State HUB statute requires that firms:
identify on its bid the minority businesses that it will use on the project and an affidavit listing the good faith efforts it has made ... and the total dollar value of the bid that will be performed by the minority businesses. A contractor, including a first-tier subcontractor on a construction manager at risk project, that performs all of the work under a contract with its own workforce may submit an affidavit to that effect in lieu of the affidavit otherwise required under this subsection. $5^{58}$

The apparent lowest responsible, responsive bidder must also file the following:
(1) Within the time specified in the bid documents, either:
a. An affidavit that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, which is equal to or more than the applicable goal. An affidavit under this sub-subdivision

[^24]shall give rise to a presumption that the bidder has made the required good faith or effort; or
b. Documentation of its good faith effort to meet the goal. The documentation must include evidence of all good faith efforts that were implemented, including any advertisements, solicitations, and evidence of other specific actions demonstrating recruitment and selection of minority businesses for participation in the contract.
(2) Within 30 days after award of the contract, a list of all identified subcontractors that the contractor will use on the project. 59

Staff noted that it is relatively easy to satisfy the fifty-point good faith efforts requirement by meeting two or three questions. Previously, firms had to submit good faith efforts within 72 hours of the bid, now firms are supposed to submit good faith efforts along with the bid. The State also allows self-performance in lieu of meeting goals. State staff did not recall a firm losing a bid for submitting inadequate good faith efforts documentation. The general approach is to reward good behavior rather than to punish bad behavior. Much of this attitude comes from a desire to avoid litigation.

Staff interviews indicated that at universities HUB coordinators conduct good faith efforts review and are supposed to sign off on contracts. Reportedly, some universities reportedly have rejected bids for failure to satisfy good faith efforts. However, no data supporting this claim was available. At state agencies there are no HUB coordinators, just HUB liaison staff, who are often the procurement officers. Staff interviews indicated that HUB liaison staff do not generally undertake good faith efforts review.

## 5. Subcontractor Substitution

State statutes provide that no HUB subcontractor can be replaced with a different subcontractor except:
(1) If the subcontractor's bid is later determined by the contractor or construction manager at risk to be non-responsible or nonresponsive, or the listed subcontractor refuses to enter into a contract for the complete performance of the bid work, or
(2) With the approval of the public entity for good cause. ${ }^{60}$

Good faith efforts apply to the selection of a substitute subcontractor. ${ }^{61}$

[^25]
## K. Race Neutral Programs

The State does not have a small business enterprise procurement program. The HUB Office has a number of business development and outreach efforts. In one initiative the goal is to provide opportunities to HUB firms building the capacity to be prequalified to perform NCDOT highway related work. The HUB office assigned 447 firms to five consultants who service 189 firms. 152 firms completed the business needs assessment.

The HUB Office also provides a workshop entitled "You're HUB Certified: Now What?" The Training Includes:

- Rules and laws that govern State Procurement
- Step by step of the bidding process and tips on how to submit a good proposal
- Construction bidding and estimating, as well as good faith efforts
- Financial programs Carolina Small Business Development Fund offers.

About 83 people attended 3 sessions in 2019.

Overall there were 82 outreach events from July 12, 2018 through June 27, 2019. ${ }^{62}$ A spreadsheet indicated 5,904 individuals participated in 64 events across the State, in person and through webinars. About 145 attended a "Meet the Purchaser" event, with Department of Administration, Department of Commerce, Department of Revenue And Department of Transportation. The HUB Office also puts out a monthly newsletter.

HUB Resource Partners for Technical Assistance are:

- Agency Capital Coordinators
- DOA Purchasing
- HUB Coordinators
- Lenders
- NCDOT
- Prime Contractors
- Procurement Technical Assistance Centers
- Small Business Centers
- Small Business \& Technology Development Centers
- Supplier Diversity Professionals
- National Association of Women in Construction (NAWIC)
- The Institute - Minority Economic Development (IMED)
- Hispanic Contractors Association of the Carolinas
- United Minority Contractors of NC (UMCNC)

[^26]- Small Business Administration (SBA)
- Women's Business Centers
- Veterans Business Outreach Center (@ Fayetteville State University/FSU)


## L. Office of Historically Underutilized Business

## 1. Mission and Objectives

The HUB Office was established by Executive Order 150. After being codified in 2001, North Carolina regulations identify the purposes of the HUB Office to
(1) Identify those areas of work for which there are minority businesses, and assist those public entities who are in the process of developing a minority business outreach plan for a particular project.
(2) Make available to interested parties a list of registered minority business contractors and subcontractors.
(3) Maintain a current list of minority businesses based upon information provided by the minority businesses.
(4) Provide training and technical assistance to minority businesses on how to identify and obtain contracting and subcontracting opportunities through the State Construction Office and other public entities.
(5) Provide training and technical assistance to public entities on how to identify and obtain minority contractor and subcontractor participation on projects subject to the goal requirements of G.S. 143128.2.
(6) Develop positive relationships with North Carolina trade and professional organizations by providing periodic meetings, such as networking and information sessions, obtaining input and feedback regarding minority business issues, legislation and policies, to improve the ability of minority businesses to participate in State construction projects.
(7) Monitor public entity compliance with the goal requirements of G.S. 143-128.2.
(8) Review and monitor corrective action plans for those public entities found to be out of compliance with G.S. 143-128.2.63

[^27]The North Carolina Procurement Manual identifies five core service areas for the HUB Office: (1) Certification/Statewide Uniform Certification (SWUC), (2) Outreach, (3) Training, (4) Program Compliance and (5) Construction Outreach. ${ }^{64}$

## 2. Organization and Staffing

The HUB Office was created by Executive Order 150 in 1999 and established by law and funded during the 2001 Legislative Session. Prior to Executive Order 150, the Division of Purchase \& Contract oversaw HUB outreach efforts, through one of its sections, namely, HUB section. The HUB Office was placed in the Secretary of Administration's Office in 1999. The HUB Office became a division of the Department of Administration when it was codified. It previously reported to the Deputy Secretary of Operations and within the past several years was moved to report to the Deputy Secretary for Advocacy Programs.

The HUB Office budget and staff from FY 2014-15 through FY 2018-19 is presented in the table below. As can been seen in the table budget and staffing has been stable over the Study Period, with one increase in budget from FY 2016-17 to FY 2017-18.

Table 10: North Carolina Office of Historically Underutilized Business Budget and Staffing FY 2014-15 through FY 2018-19

North Carolina Disparity Study

| Fiscal Year | Revised Budget | Staff |
| :--- | :---: | :---: |
| $2018-2019$ | $\$ 620,484$ | 8 |
| $2017-2018$ | $\$ 620,484$ | 8 |
| $2016-2017$ | $\$ 522,910$ | 8 |
| $2015-2016$ | $\$ 522,910$ | 8 |
| $2014-2015$ | $\$ 505,531$ | 7 |

Course: State of North Carolina Certified Budgets, FY 2014-15 through FY 2018-19

In addition, the State Construction Office has an SBE/HUB coordinator. The SCO HUB coordinator's position was funded by the HUB office and located in the SCO. However, during the disparity study process, this position was moved to the HUB Office. This position will still support state construction related efforts, but will report directly to the HUB director.

[^28]
## 3. HUB Advisory Council

Executive Order No 25 provides that the State HUB Advisory Council is composed of members appointed by the Governor:

- Liaison from the Governor's Office;
- State Purchasing Officer;
- Director of the State Construction Office;
- Executive Director of the North Carolina Council for Women;
- Executive Director of the North Carolina State Commission of Indian Affairs;
- Member of the North Carolina Board of Transportation;
- Senior Level Administrator from the University of North Carolina or the North Carolina Community College System;
- Nine HUB owners, all of whom shall be members of one or more of the groups identified in N.C. Gen. Stat.§ 143-128.4(b);
- Two representatives from a non-profit organization possessing knowledge of, and expertise in, HUBs; and
- Two representatives, both of whom have one of the following positions at a large, non-HUB business entity (i)executive officer, (ii) financial officer, (iii) purchasing officer, or (iv) supplier diversity chief.

The HUB Advisory Council has met and developed recommendations for increasing HUB participation. These recommendations focused on the need for a disparity study, and improved transparency, reporting, identification of opportunities, training, and business development. 65

## 4. Reporting MBE/WBE Utilization

The State HUB statute provides that:
(c) The Department of Administration shall compile information on small and medium-sized business participation in State contracts subject to this Article and report the information as provided in subsection (d) of this section. The report shall analyze (i) contract awards by business size category, (ii) historical trends in small and medium-sized business participation in these contracts, and (iii) to the extent feasible, participation by small and medium-sized businesses in the State procurement process as dealers, service companies, and other indirect forms of participation. The Department may require reports on contracting by business size in the same manner ....

[^29](d) The Department of Administration shall collect and compile the data described in this section and report it annually to the General Assembly. ${ }^{66}$

State agencies, state universities and community colleges enter data into the Interscope system. Local public entities (including schools, municipalities, counties, etc.) use HUBSCO for reporting HUB utilization, some of this data is also reported on the HUB website. There are monthly and quarterly meetings about HUB utilization. HUBSCO is an online reporting system is developed by the HUB Office and the State Construction Office in 2003. HUB utilization data back to FY 2014-15 is on the HUB office website.

Staff interviews reflected inconsistencies in reporting HUB subcontractor utilization. A number of agencies said they only collected data on intended subcontractors and not subcontractor payments. Annual HUB construction reports do not separate HUB spending by prime and subcontractor level, as is the case with NCDOT.

Staff also differed on the efficacy of HUBSCO versus Interscope. Some staff felt that HUBSCO was more complete than Interscope but also more time consuming due to redundant data entry in HUBSCO.

The table below shows State HUB utilization in goods and services and construction for FY 2017-2018. HUB percentage utilization ranged from 3.5 percent to 7.3 percent for goods and services. For construction HUB percentage utilization ranged from 6.4 percent to 51.9 percent. Further examination of HUB percentage utilization is in the Statistical chapter below.

| Table 11: North Carolina HUB Utilization <br> State Agencies, Universities and Community Colleges <br> FY 2017-18 <br> North Carolina Disparity Study |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Goods and Services |  | Construction |  |
|  | HUB \$ | HUB \% | HUB \$ | HUB \% |
| Cabinet Agencies | \$81,254,664 | 5.51\% | \$5,090,251 | 23.25\% |
| Council of State | \$5,786,353 | 3.96\% | \$348,971 | 11.00\% |
| Supporting Agencies | \$5,811,784 | 3.57\% | \$308,122 | 12.44\% |
| State Universities | \$100,089,876 | 4.31\% | \$91,109,752 | 51.92\% |
| Community Colleges | \$40,921,945 | 7.34\% | \$2,253,969 | 6.41\% |

Source: HUB Office website

[^30]The State procurement card tracks diverse vendors but not certified HUB firms. The State intends to ask for this information when the contract is rebid.

The State commissioned two previous disparity studies, in 1995 and of construction in 2003. The 2003 State Disparity Study covered State agencies, State Universities and Communities Colleges.

## M. Conclusions

The core HUB provision has been a 10 percent goal in construction. The State does not set separate project goals or reject bids for failure to satisfy HUB goals, although some universities reportedly do reject bids for failure to satisfy good faith efforts.

The State requires agencies to report their HUB achievement, but some do not comply with the reporting requirement. The HUB Office does issue annual HUB participation reports.

This is the State's third disparity study, it has yet to fully institute a robust race and gender conscious program that has an impact on the awarding of contracts if the goal is not met.

It is important to note that the North Carolina Governor, Roy Cooper, recently executed Executive Order 143 through which the HUB Office has been charged with creating a Small Business Enterprise (SBE) program to enhance opportunities for small historically underutilized businesses.

The impact of the policies discussed in this chapter are evaluated further in the qualitative and anecdotal material in subsequent chapters in this report. Detailed recommendations about State procurement and HUB policy are found in the Recommendations chapter.. Those recommendations are based on the combination of the findings in this chapter with the findings in the statistical and anecdotal chapters in this report.

## V. QUANTITATIVE ANALYSIS

## A. Introduction

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

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

## Research Question: Statistical Analysis

Is there a disparity that is statistically significant between the percentage of available, qualified, and willing MWBE firms, in the Relevant Geographic and Product Markets, and the percentage of dollars spent with MWBE firms in those same markets during the Study Period? (the amount to be expected). Further, the disparity is tested to see if it is statistically significant. Legal precedents have clearly established that the presence of such significant statistical disparities create an inference of discrimination adversely affecting the participation of the underutilized firms. Finally, the regression analysis contained in the Chapter VI Private Sector Analysis tests for 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 MWBEs that is likely caused by race/ethnicity/gender, then GSPC will determine as part of its findings whether there is a basis for an inference of discrimination and consideration by North Carolina for the use of narrowly tailored race- and gender-conscious remedies.

## B. Data Assessment and Requests

GSPC conducted several meetings with representatives who were familiar with North Carolina's data. The objective of the meetings was for GSPC to get a better understanding of how North Carolina's data is kept and how best to request the data needed for the Study. Following the data assessment meetings, GSPC presented written requests for the data, detailing the type and fields of data needed to complete the quantitative analysis. The Data Assessment Report is included as Appendix G.

All the data requested was in electronic format from the North Carolina Comptroller's Office and the North Carolina Department of Transportation (NCDOT, for NCDOT goods procurement above $\$ 25,000$ ) and there was no data that had to be collected manually in hard-copies or PDF. The data was uploaded to GSPC where they were catalogued and stored in GSPC's cloud repository. The data collected was used to develop data files containing purchasing history for each major Industry Category, that is, Construction, Architecture and Engineering, Professional Services, Other Services, and Goods. North Carolina provided limited subcontract data which could be linked to actual contract with contract numbers.

In addition, GSPC worked on verification of gender and ethnicity of vendors and completed necessary information about vendor address, Industry Category, and other related areas. Gender and ethnicity verification were based on official certification listings. GSPC uses vendor zip codes to identify the County where the business is located to determine whether a vendor will be included in the Relevant Market Area analysis. Vendor addresses are also used for conducting vendor surveys. Some files submitted by North Carolina did not contain the necessary information, including vendor physical addresses, which were compensated for by obtaining them from Dun and Bradstreet Hoover's databases or simply searching the business name on the internet.

## C. Data Assignment, Cleanup and Verification

After the completion of data collection, the data were electronically and manually "cleaned" to find duplicates and removing all unrelated payments such as payment to personnel, nonprofit organizations, and governmental agencies. The data cleanup also included the following five (5) tasks:

- Assigning and verifying ethnicity, race \& gender of each firm;
- Assigning each firm to one or more NAICS codes 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 Industry Category; and
- Filling in any additional necessary data on firms.

File cleanup was first done electronically by linking information provided by North Carolina to certain indicators, like purchase order number or cross-referencing information with other files to fill in missing fields. This cleansing and re-tabulating process produced a lower total amount than the designated budget for each category since many vendors/purchases were excluded from the study, as payments went to local governments, utility companies, not-for profits, and universities/colleges.

## 1. Assignment of Race/Gender/Ethnicity

To identify all minority owned firms, GSPC utilized only those which were certified through the following certification process:

Carolinas-Virginia Minority Supplier Development Council
DBE Certified Vendors
HUB Certified Vendors
Indian American Businesses (tribal certification)

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 were categorized as Caucasian Nonminority Female. Firms with no race/ethnicity/gender indicated, Nonminority male owned firms, and publicly owned corporations are categorized as Non-MWBE firms.

## 2. Assignment of Business Categories

To place firms in the proper business categories, GSPC used the internal North Carolina business classification but verified the results after assigning NAICS codes to all vendors in Construction, Architecture and Engineering, Professional Services, Other Services and Goods. The results showed close to $98 \%$ accuracy in vendor classification by North Carolina. In assigning vendors to categories, GSPC categorized vendors based on vendor classification in NAICS. Vendor NAICS codes were obtained from review of vendors in Dun and Bradstreet or search of vendor on the internet. Hoover produces the largest publicly available database of business establishments in the U.S. Hoover's establishment data includes the business name, address, phone number, NAICS code, business type, and other descriptive information, which is continuously updated and verified. Any remaining firms without NAICS codes were researched using the internet to ascertain the correct code.

## 3. Master Vendor

North Carolina provided data files reflecting all aspects of purchasing activities during the Study Period. Based on the submitted files, GSPC created two master files. One showing utilization data while another produced initial information about available list of vendors. The utilization master files contained all information for disparity analysis while the availability master file included the listing of all firms. The purpose of the Master Vendor File was to collect, in one data file, a listing of all firms that are ready, willing, and able to do business with North Carolina. It includes internal lists from North Carolina as well as outside governmental lists. The availability files 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, e.g. making sure there were no inconsistent ethnicities. This is important to make sure that GSPC is comparing like-data to like-data. The Master Vendor File contains the lists of firms from the following data sources:

## 4. Availability (Master Vendor File)

- Carolinas-Virginia Minority Supplier Development Council
- DBE Certified Vendors
- DHHS Prime Procurement Data
- NC-State Subcontract Data
- DOA Prime Procurement Data
- HUB Certified Vendors
- Indian American Businesses (tribal certification)
- NCDOT-Vendors
- SBE Certified Vendors

Availability is determined by using all the unique firms in the Master Vendor File.

## D. 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. ${ }^{67}$ 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. ${ }^{68}$ 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 City contracting dollars awarded to minority firms.

The Relevant Market has been determined for each of the major Industry Categories:

- Construction
- Architecture and Engineering
- Professional Services
- Other Services
- Goods

For each Industry Category GSPC measured the "Relevant Market" by the area where at least 75\% of North Carolina's dollars were paid during the Study Period. In analyzing the Relevant Market data, GSPC tabulated the percentage of dollars paid. Postal Zip Codes were used to identify the County location of each vendor. Counties were used in calculating the Relevant Market Area starting with the State of North Carolina and then radiating out to reach the required minimum $75 \%$ area.

Table 12 shows the percentage of dollars paid in each level of the Geographic Relevant Market using payments. In Construction, $93.32 \%$ of all the dollars paid were paid within the North Carolina market area. The North Carolina market area covered $91.54 \%$ of Architecture \& Engineering, 79.11\% of Professional

[^31]Services, $78.12 \%$ of Other Services and $78.78 \%$ of Goods. All the Industry Categories have the North Carolina area as the Relevant Market and GSPC determined that it is appropriate to have one consistent Relevant Market across all Industry Categories.

Table 12: Relevant Market Area - Prime Construction, Architecture and Engineering, Professional
Services, Other Services and Goods
(Using Payment Dollars, FY 2014-2018)
North Carolina Disparity Study

| Procurment Area | Percent of Dollars in <br> North Carolina |
| :--- | :---: |
| Construction | $93.32 \%$ |
| Architecture and Engineering | $91.54 \%$ |
| Professional Services | $79.11 \%$ |
| Other Services | $78.12 \%$ |
| Goods | $78.78 \%$ |

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## E. 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

Availability is the determination of the percentage of MWBEs that are "ready, willing, and able" to provide goods or services to North Carolina. benchmark to examine whether there are any disparities between the utilization of MWBEs and their availability in the marketplace.

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 Study incorporate all the criteria of availability required by Croson:
> The firm does business within an industry group from which North Carolina makes certain purchases.
> The firm's owner has taken steps (such as registering, bidding, certification, prequalification, etc.) to demonstrate interest in doing business with government.
> The firm is located within a relevant geographical area such that it can do business with North Carolina.

MWBE availability is a percentage and is computed by dividing the number of firms in each MWBE group by the total number of businesses in the pool of firms for that Industry Category. Once these Availability Estimates were calculated, GSPC compared them to the percentage of firms utilized in the respective business categories 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 the relevant market and in the relevant Industry Categories. In determining those firms to be included in the availability pool, GSPC included the entire "Master Vendor File," which consisted of the following:

> Carolinas-Virginia Minority Supplier Development Council<br>> DBE Certified Vendors<br>> DHHS Prime Procurement Data<br>> NC-State Subcontract Data<br>> DOA Prime Procurement Data<br>$>$ HUB Certified Vendors<br>> Indian American Businesses (tribal certification)<br>$>$ NCDOT-Vendors<br>> SBE Certified Vendors

## 3. Capacity

The ability or capacity to perform the work is tested in the Regression Analysis conducted in Chapter VI chapter - Private Sector Analysis below. The regression analysis shows whether race/ethnicity/gender factors are impediments overall to the success of MWBEs in obtaining awards in the 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 five (5) major business categories: Construction, Architecture and Engineering, Professional Services, Other Services and Goods. Figures 1-5 show the number of firms by race/gender/ethnicity as compared with the total number of firms. All availability (not broken down by Industry Category) and counts of availability are contained in Appendix B.

The availability analyzed from the Master Vendor File includes all unique vendors in each Industry Category. ${ }^{69}$ The North Carolina Relevant Market availability in Figure 1 below shows that, in Construction, Black American owned firms make up $\mathbf{1 3 . 7 1 \%}$ of all construction firms, Nonminority Female owned firms make up $12.55 \%$. Asian American owned firms are 1.03\%, while Hispanic American and American Indian owned firms have availability of $4.20 \%$ and $2.09 \%$, respectively, in Construction within the Relevant Market. In total, MWBEs account for $33.57 \%$ of all available firms in Construction.

Figure 1: Availability Estimates - Construction
In the Relevant Market
North Carolina Disparity Study


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[^32]As set out in the availability Figure 2, Black American owned firms make up $9.17 \%$ of Architecture and Engineering firms and Nonminority Female owned firms make up 13.83\%. Non-MWBE owned firms account for about $68.50 \%$, while Asian American owned firms have $3.17 \%$. Hispanic American owned firms have $3.50 \%$ and American Indian owned firms have $1.83 \%$ availability in this category. MWBEs are $31.50 \%$ of all available firms in Architecture and Engineering.

Figure 2: Availability Estimates- Architecture and Engineering
In the Relevant Market
North Carolina Disparity Study


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As set out in the availability Figure 3, Black American owned firms make up 15.68\% of Professional Services firms and Nonminority Female owned firms make up 8.12\%. Hispanic American owned firms have 1.70\% and American Indian owned firms have $1.24 \%$ availability in this category. MWBEs are $29.02 \%$ of all available firms in Professional Services.

Figure 3: Availability Estimates-Professional Services
In the Relevant Market
North Carolina Disparity Study


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Other Services availabilities are reflected in Figure 4 so that businesses owned by Black Americans make up $6.85 \%$ and Nonminority Female owned $3.85 \%$ of the firms. Non-MWBEs account for $87.71 \%$ of all availability, while Asian American $0.59 \%$. Hispanic American owned firms have $0.71 \%$ and American Indian owned firms have $0.30 \%$ availability in this category. MWBEs total $12.29 \%$ of all available firms in Other Services.

Figure 4: Availability Estimates-Other Services
In the Relevant Market North Carolina Disparity Study


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Goods availabilities are reflected in Figure 5 so that businesses owned by Hispanic Americans make up $0.68 \%$ and Nonminority Female owned $3.58 \%$ of the firms. Non-MWBEs account for $92.07 \%$ of all availability, while Asian American owned firms have $0.43 \%$. Black American owned firms have $2.99 \%$ and American Indian owned firms have $0.26 \%$ availability in this category. MWBEs total $7.93 \%$ of all available firms in Goods.

Figure 5: Availability Estimates -Goods
In the Relevant Market
North Carolina Disparity Study


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GSPC also presented Availability of firms by County in Appendix K.

## F. Utilization Analysis

## 1. Prime Utilization

> PRIME UTILIZATION is the percentage of actual payments made directly by North Carolina during the Study Period to MWBEs in comparison to all actual payments made directly to all vendors by North Carolina during the Study Period.

The relevant payment history for North Carolina has been recorded based upon the paid amounts provided by North Carolina. In the Prime Utilization tables below, the dollars and percentage of dollars paid in each of the five (5) 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 MWBE category will, when added to the Non-MWBE Category, equal the Total Column.

As indicated in Tables 13 and 14, a total of fifty-one (51) MBEs received $\$ 9.6$ million during the Study Period, while eighty-one (81) Nonminority Female owned firms were paid $\$ 29.0$ million. Two-thousand two-hundred and fifty-six $(2,256)$ non-MWBE firms were paid over $\$ 644.6$ million, with an average to each firm of $\$ 285,763$ over the Study Period. MWBEs received $5.65 \%$ of the total prime Construction paid dollars and averaged \$292,383 over the Study Period.

> Table 13: Prime Utilization - Construction by Number of Firms
> In the Relevant Market Number of Businesses by Business Ownership and Fiscal Year

> FY 2014-2018
> North Carolina Disparity Study

|  | African American |  | Asian American |  | Hispanic <br> American |  | Native American |  | Total MBE |  | Nonminority Female |  | Total M/WBE |  | Non-M/WBE |  | TOTAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| 2014 | 8 | 0.96\% | 0 | 0.00\% | 1 | 0.12\% | 0 | 0.00\% | 9 | 1.08\% | 40 | 4.81\% | 49 | 5.89\% | 783 | 94.11\% | 832 | 16.98\% |
| 2015 | 6 | 0.56\% | 1 | 0.09\% | 1 | 0.09\% | 3 | 0.28\% | 11 | 1.03\% | 43 | 4.01\% | 54 | 5.04\% | 1018 | 94.96\% | 1072 | 21.87\% |
| 2016 | 12 | 1.19\% | 1 | 0.10\% | 2 | 0.20\% | 3 | 0.30\% | 18 | 1.78\% | 36 | 3.56\% | 54 | 5.34\% | 957 | 94.66\% | 1011 | 20.63\% |
| 2017 | 10 | 0.99\% | 0 | 0.00\% | 5 | 0.49\% | 5 | 0.49\% | 20 | 1.97\% | 38 | 3.75\% | 58 | 5.72\% | 956 | 94.28\% | 1014 | 20.69\% |
| 2018 | 12 | 1.23\% | 2 | 0.21\% | 4 | 0.41\% | 5 | 0.51\% | 23 | 2.37\% | 34 | 3.50\% | 57 | 5.86\% | 915 | 94.14\% | 972 | 19.83\% |
| Total 2014-2018 | 48 | 0.98\% | 4 | 0.08\% | 13 | 0.27\% | 16 | 0.33\% | 81 | 1.65\% | 191 | 3.90\% | 272 | 5.55\% | 4629 | 94.45\% | 4901 | 100.00\% |
| Total Unique <br> Number of Businesses | 32 | 1.34\% | 4 | 0.17\% | 6 | 0.25\% | 9 | 0.38\% | 51 | 2.14\% | 81 | 3.39\% | 132 | 5.53\% | 2256 | 94.47\% | 2388 | 100.00\% |

[^33]Table 14: Prime Utilization - Construction by Dollars
In the Relevant Market
Distribution of Dollars by Business Ownership and Fiscal Year
(Using Payment Dollars, FY 2014-2018)
North Carolina Disparity Study

| Business Ownership Classification | 2014 | 2015 | 2016 | 2017 | 2018 | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (\$) | (\$) | (\$) | (\$) | (\$) | (\$) |
| Black American | \$ 288,378 | \$ 911,560 | 637,751 | \$ 514,355 | \$ 1,593,880 | \$ 3,945,923 |
| Asian American | \$ | \$ 20,100 | 17,710 | \$ - | \$ 14,383 | \$ 52,193 |
| Hispanic American | \$ 288,300 | \$ 230,789 | 963,245 | \$ 1,025,105 | \$ 1,759,443 | \$ 4,266,882 |
| Native American | \$ | \$ 52,192 | \$ 50,796 | \$ 965,297 | \$ 243,378 | \$ 1,311,663 |
| TOTAL MINORITY | \$ 576,677 | \$ 1,214,640 | \$ 1,669,502 | \$ 2,504,758 | \$ 3,611,084 | \$ 9,576,661 |
| Nonminority Female | \$ 7,578,189 | \$ 5,904,106 | \$ 3,134,645 | \$ 3,378,308 | \$ 9,028,618 | \$ 29,023,866 |
| TOTAL M/WBE | \$ 8,154,866 | \$ 7,118,746 | \$ 4,804,147 | \$ 5,883,065 | \$ 12,639,701 | \$ 38,600,526 |
| NON-M/WBE | \$124,057,446 | \$111,693,621 | \$130,325,156 | \$153,389,735 | \$ 125,215,932 | \$ 644,681,891 |
| TOTAL FIRMS | \$ 132,212,312 | \$ 118,812,367 | \$ 135,129,304 | \$ 159,272,800 | \$ 137,855,634 | \$ 683,282,418 |
| Business Ownership Classification | 2014 | 2015 | 2016 | 2017 | 2018 | TOTAL |
|  | (\%) | (\%) | (\%) | (\%) | (\%) | (\%) |
| Black American | 0.22\% | 0.77\% | 0.47\% | 0.32\% | 1.16\% | 0.58\% |
| Asian American | 0.00\% | 0.02\% | 0.01\% | 0.00\% | 0.01\% | 0.01\% |
| Hispanic American | 0.22\% | 0.19\% | 0.71\% | 0.64\% | 1.28\% | 0.62\% |
| Native American | 0.00\% | 0.04\% | 0.04\% | 0.61\% | 0.18\% | 0.19\% |
| TOTAL MINORITY | 0.44\% | 1.02\% | 1.24\% | 1.57\% | 2.62\% | 1.40\% |
| Nonminority Female | 5.73\% | 4.97\% | 2.32\% | 2.12\% | 6.55\% | 4.25\% |
| TOTAL M/WBE | 6.17\% | 5.99\% | 3.56\% | 3.69\% | 9.17\% | 5.65\% |
| NON-M/WBE | 93.83\% | 94.01\% | 96.44\% | 96.31\% | 90.83\% | 94.35\% |
| TOTAL FIRMS | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% |
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As shown in Tables 15 and 16, in A\&E there were nine (9) MBEs that shared a total amount of $\$ 2.8$ million which was $1.30 \%$ of the total A\&E paid dollars. Nineteen (19) Nonminority Female owned firms were paid 7.02 \% or $\$ 15.5$ million of the total A\&E dollars. The average paid to MWBE firms was $\$ \$ 657,248$ as compared to $\$ 547,772$ to Non-MWBE firms over the Study Period.

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Table 15: Prime Utilization - Architecture \& Engineering by Number of Firms
In the Relevant Market
Number of Businesses by Business Ownership and Fiscal Year
FY 2014-2018
North Carolina Disparity Study

|  | African American |  | Asian American |  | Hispanic <br> American |  | Native American |  | Total MBE |  | Nonminority Female |  | Total M/WBE |  | Non-M/WBE |  | TOTAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| 2014 | 0 | 0.00\% | 1 | 0.55\% | 1 | 0.55\% | 2 | 1.10\% | 4 | 2.20\% | 13 | 7.14\% | 17 | 9.34\% | 165 | 90.66\% | 182 | 18.37\% |
| 2015 | 2 | 0.91\% | 1 | 0.45\% | 1 | 0.45\% | 2 | 0.91\% | 6 | 2.73\% | 15 | 6.82\% | 21 | 9.55\% | 199 | 90.45\% | 220 | 22.20\% |
| 2016 | 0 | 0.00\% | 0 | 0.00\% | 1 | 0.49\% | 1 | 0.49\% | 2 | 0.98\% | 13 | 6.37\% | 15 | 7.35\% | 189 | 92.65\% | 204 | 20.59\% |
| 2017 | 0 | 0.00\% | 0 | 0.00\% | 2 | 1.02\% | 1 | 0.51\% | 3 | 1.53\% | 15 | 7.65\% | 18 | 9.18\% | 178 | 90.82\% | 196 | 19.78\% |
| 2018 | 1 | 0.53\% | 0 | 0.00\% | 2 | 1.06\% | 1 | 0.53\% | 4 | 2.12\% | 14 | 7.41\% | 18 | 9.52\% | 171 | 90.48\% | 189 | 19.07\% |
| Total 2014-2018 | 3 | 0.30\% | 2 | 0.20\% | 7 | 0.71\% | 7 | 0.71\% | 19 | 1.92\% | 70 | 7.06\% | 89 | 8.98\% | 902 | 91.02\% | 991 | 100.00\% |
| Total Unique <br> Number of Businesses | 3 | 0.75\% | 1 | 0.25\% | 3 | 0.75\% | 2 | 0.50\% | 9 | 2.26\% | 19 | 4.77\% | 28 | 7.04\% | 370 | 92.96\% | 398 | 100.00\% |

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Table 16: Prime Utilization - Architecture \& Engineering by Dollars
In the Relevant Market
Distribution of Dollars by Business Ownership and Fiscal Year
(Using Payment Dollars, FY 2014-2018)
North Carolina Disparity Study

| Business Ownership Classification | 2014 |  | 2015 |  | 2016 |  | 2017 |  | 2018 |  | TOTAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (\$) |  | (\$) |  | (\$) |  | (\$) |  | (\$) |  | (\$) |  |
| Black American | \$ | - | \$ | 516,260 | \$ | - | \$ | - | \$ | 8,137 | \$ | 524,397 |
| Asian American | \$ | 2,154 | \$ | 20,894 | \$ |  | \$ |  | \$ |  | \$ | 23,048 |
| Hispanic American | \$ | 128,909 | \$ | 93,415 | \$ | 130,629 | \$ | 109,015 | \$ | 154,130 | \$ | 616,098 |
| Native American | \$ | 97,801 | \$ | 19,196 | \$ | 8,144 | \$ | 125,379 | \$ | 1,458,487 | \$ | 1,709,007 |
| TOTAL MINORITY | \$ | 228,864 | \$ | 649,765 | \$ | 138,773 | \$ | 234,394 | \$ | 1,620,754 | \$ | 2,872,550 |
| Nonminority Female | \$ | 2,561,080 | \$ | 2,517,056 | \$ | 1,229,951 | \$ | 3,375,999 | \$ | 5,846,299 | \$ | 15,530,385 |
| TOTAL M/WBE | \$ | 2,789,944 | \$ | 3,166,822 | \$ | 1,368,724 | \$ | 3,610,393 | \$ | 7,467,053 | \$ | 18,402,935 |
| NON-M/WBE | \$ | 57,015,466 | \$ | 36,571,170 | \$ | 28,597,970 | \$ | 37,917,251 | \$ | 42,573,697 | \$ | 202,675,554 |
| TOTAL FIRMS | \$ | 59,805,410 | \$ | 39,737,992 | \$ | 29,966,694 | \$ | 41,527,644 | \$ | 50,040,750 | \$ | 221,078,489 |
| Business Ownership Classification | 2014 |  | 2015 |  | 2016 |  | 2017 |  | 2018 |  | TOTAL |  |
|  |  | (\%) | (\%) |  | (\%) |  | (\%) |  | (\%) |  | (\%) |  |
| Black American |  | 0.00\% | 1.30\% |  | 0.00\% |  | 0.00\% |  | 0.02\% |  | 0.24\% |  |
| Asian American |  | 0.00\% | 0.05\% |  | 0.00\% |  | 0.00\% |  | 0.00\% |  | 0.01\% |  |
| Hispanic American |  | 0.22\% | 0.24\% |  | 0.44\% |  | 0.26\% |  | 0.31\% |  | 0.28\% |  |
| Native American |  | 0.16\% | 0.05\% |  | 0.03\% |  | 0.30\% |  | 2.91\% |  | 0.77\% |  |
| TOTAL MINORITY |  | 0.38\% | 1.64\% |  | 0.46\% |  | 0.56\% |  | 3.24\% |  | 1.30\% |  |
| Nonminority Female |  | 4.28\% | 6.33\% |  | 4.10\% |  | 8.13\% |  | 11.68\% |  | 7.02\% |  |
| TOTAL M/WBE |  | 4.67\% | 7.97\% |  | 4.57\% |  | 8.69\% |  | 14.92\% |  | 8.32\% |  |
| NON-M/WBE |  | 95.33\% | 92.03\% |  | 95.43\% |  | 91.31\% |  | 85.08\% |  | 91.68\% |  |
| TOTAL FIRMS |  | 100.00\% | 100.00\% |  | 100.00\% |  | 100.00\% |  | 100.00\% |  | 100.00\% |  |

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As shown in Tables 17 and 18, in Professional Services there were twelve (12) MBEs that shared a total amount of $\$ 1.5$ million which was $0.22 \%$ of the total Professional Services paid dollars. Fifteen (15)

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Nonminority Female owned firms were paid $1.59 \%$ or $\$ 10.9$ million of the total Professional Services dollars. The average paid to MWBE firms was $\$ 463,167$, a little less than the $\$ 484,514$ paid to Non-MWBE firms over the Study Period.

Table 17: Prime Utilization - Professional Services by Number of Firms
In the Relevant Market
Number of Businesses by Business Ownership and Fiscal Year
FY 2014-2018
North Carolina Disparity Study

|  | African American |  | Asian American |  | Hispanic <br> American |  | Native American |  | Total MBE |  | Nonminority Female |  | Total M/WBE |  | Non-M/WBE |  | TOTAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| 2014 | 4 | 0.68\% | 1 | 0.17\% | 1 | 0.17\% | 1 | 0.17\% | 7 | 1.19\% | 7 | 1.19\% | 14 | 2.88\% | 574 | 97.62\% | 588 | 19.65\% |
| 2015 | 4 | 0.62\% | 1 | 0.15\% | 1 | 0.15\% | 1 | 0.15\% | 7 | 1.08\% | 9 | 1.39\% | 16 | 2.47\% | 633 | 97.53\% | 649 | 21.69\% |
| 2016 | 2 | 0.33\% | 0 | 0.00\% | 0 | 0.00\% | 1 | 0.17\% | 3 | 0.50\% | 10 | 1.65\% | 13 | 2.15\% | 593 | 97.85\% | 606 | 20.25\% |
| 2017 | 1 | 0.17\% | 1 | 0.17\% | 1 | 0.17\% | 0 | 0.00\% | 3 | 0.51\% | 8 | 1.37\% | 11 | 1.89\% | 572 | 98.11\% | 583 | 19.49\% |
| 2018 | 3 | 0.53\% | 2 | 0.35\% | 1 | 0.18\% | 0 | 0.00\% | 6 | 1.06\% | 9 | 1.59\% | 15 | 2.65\% | 551 | 97.35\% | 566 | 18.92\% |
| Total 2014-2018 | 14 | 0.47\% | 5 | 0.17\% | 4 | 0.13\% | 3 | 0.10\% | 26 | 0.87\% | 43 | 1.44\% | 69 | 2.31\% | 2923 | 97.69\% | 2992 | 100.00\% |
| Total Unique <br> Number of <br> Businesses | 7 | 0.49\% | 2 | 0.14\% | 2 | 0.14\% | 1 | 0.07\% | 12 | 0.84\% | 15 | 1.05\% | 27 | 1.89\% | 1399 | 98.11\% | 1426 | 100.00\% |

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

Table 18: Prime Utilization - Professional Services by Dollars

## In the Relevant Market

FY 2014-2018
North Carolina Disparity Study

| Business Ownership Classification | 2014 |  | 2015 |  | 2016 |  | 2017 |  | 2018 |  | TOTAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (\$) |  | (\$) |  | (\$) |  | (\$) |  | (\$) |  | (\$) |  |
| Black American | \$ | 126,939 | \$ | 723,358 | \$ | 9,840 | \$ | 8,933 | \$ | 16,006 | \$ | 885,077 |
| Asian American | \$ | 35,750 | \$ | 52,504 | \$ | - | \$ | 22,790 | \$ | 84,127 | \$ | 195,171 |
| Hispanic American | \$ | 43,276 | \$ | 3,900 | \$ | - | \$ | - | \$ | 185,342 | \$ | 232,518 |
| Native American | \$ | 83,970 | \$ | 90,000 | \$ | 4,320 | \$ | 61,153 | \$ | - | \$ | 239,443 |
| TOTAL MINORITY | \$ | 289,934 | \$ | 869,762 | \$ | 14,161 | \$ | 92,875 | \$ | 285,475 | \$ | 1,552,208 |
| Nonminority Female | \$ | 3,505,907 | \$ | 2,490,451 | \$ | 2,392,581 | \$ | 812,475 | \$ | 1,751,900 | \$ | 10,953,313 |
| TOTAL M/WBE | \$ | 3,795,841 | \$ | 3,360,213 | \$ | 2,406,741 | \$ | 905,351 | \$ | 2,037,376 | \$ | 12,505,521 |
| NON-M/WBE | \$ | 122,726,207 | \$ | 138,286,122 | \$ | 153,215,697 | \$ | 128,378,962 | \$ | 135,228,263 | \$ | 677,835,251 |
| TOTAL FIRMS | \$ | 126,522,048 | \$ | 141,646,335 | \$ | 155,622,438 | \$ | 129,284,312 | \$ | 137,265,639 | \$ | 690,340,773 |
| Business Ownership Classification | 2014 |  | 2015 |  | 2016 |  | 2017 |  | 2018 |  | TOTAL |  |
|  | (\%) |  | (\%) |  | (\%) |  | (\%) |  | (\%) |  | (\%) |  |
| Black American | 0.10\% |  | 0.51\% |  | 0.01\% |  | 0.01\% |  | 0.01\% |  | 0.13\% |  |
| Asian American | 0.03\% |  | 0.04\% |  | 0.00\% |  | 0.02\% |  | 0.06\% |  | 0.03\% |  |
| Hispanic American | 0.03\% |  | 0.00\% |  | 0.00\% |  | 0.00\% |  | 0.14\% |  | 0.03\% |  |
| Native American | 0.07\% |  | 0.06\% |  | 0.00\% |  | 0.05\% |  | 0.00\% |  | 0.03\% |  |
| TOTAL MINORITY | 0.23\% |  | 0.61\% |  | 0.01\% |  | 0.07\% |  | 0.21\% |  | 0.22\% |  |
| Nonminority Female | 2.77\% |  | 1.76\% |  | 1.54\% |  | 0.63\% |  | 1.28\% |  | 1.59\% |  |
| TOTAL M/WBE | 3.00\% |  | 2.37\% |  | 1.55\% |  | 0.70\% |  | 1.48\% |  | 1.81\% |  |
| NON-M/WBE | 97.00\% |  | 97.63\% |  | 98.45\% |  | 99.30\% |  | 98.52\% |  | 98.19\% |  |
| TOTAL FIRMS | 100.00\% |  | 100.00\% |  | 100.00\% |  | 100.00\% |  | 100.00\% |  | 100.00\% |  |

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As indicated in Tables 19 and 20, one-hundred and seventy-one (171) MWBEs represented $1.66 \%$ of all firms to be paid dollars in Other Services, averaging $\$ 538,421$ per firm. In comparison, 10,131 non-MWBE firms represented $98.34 \%$ of all firms in Other Services, averaging $\$ 615,505$ per firm.

Table 19: Prime Utilization - Other Services by Number of Firms
In the Relevant Market Number of Businesses by Business Ownership and Fiscal Year

FY 2014-2018
North Carolina Disparity Study

| Fiscal Year | African American |  | Asian American |  | Hispanic <br> American |  | Native American |  | Total MBE |  | Nonminority <br> 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 | 19 | 0.39\% | 5 | 0.10\% | 3 | 0.06\% | 1 | 0.02\% | 28 | 0.57\% | 36 | 0.73\% | 64 | 1.30\% | 4867 | 98.70\% | 4931 | 23.11\% |
| 2015 | 33 | 0.67\% | 8 | 0.16\% | 3 | 0.06\% | 2 | 0.04\% | 46 | 0.94\% | 41 | 0.84\% | 87 | 1.78\% | 4806 | 98.22\% | 4893 | 22.93\% |
| 2016 | 26 | 0.61\% | 0 | 0.00\% | 4 | 0.09\% | 1 | 0.02\% | 31 | 0.72\% | 38 | 0.89\% | 69 | 1.61\% | 4216 | 98.39\% | 4285 | 20.08\% |
| 2017 | 31 | 0.81\% | 7 | 0.18\% | 4 | 0.10\% | 3 | 0.08\% | 45 | 1.17\% | 45 | 1.17\% | 90 | 2.35\% | 3741 | 97.65\% | 3831 | 17.96\% |
| 2018 | 35 | 1.03\% | 8 | 0.24\% | 2 | 0.06\% | 5 | 0.15\% | 50 | 1.47\% | 49 | 1.44\% | 99 | 2.92\% | 3297 | 97.08\% | 3396 | 15.92\% |
| Total 2014-2018 | 144 | 0.67\% | 28 | 0.13\% | 16 | 0.07\% | 12 | 0.06\% | 200 | 0.94\% | 209 | 0.98\% | 409 | 1.92\% | 20927 | 98.08\% | 21336 | 100.00\% |
| Total Unique <br> Number of <br> Businesses | 56 | 0.54\% | 14 | 0.14\% | 9 | 0.09\% | 7 | 0.07\% | 86 | 0.83\% | 85 | 0.83\% | 171 | 1.66\% | 10131 | 98.34\% | 10302 | 100.00\% |

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Table 20: Prime Utilization - Other Services by Dollars
In the Relevant Market
FY 2014-2018
North Carolina Disparity Study

| Business Ownership Classification | 2014 |  | 2015 |  | 2016 |  | 2017 |  | 2018 |  | TOTAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (\$) |  | (\$) |  | (\$) |  | (\$) |  | (\$) |  | (\$) |  |
| Black American | \$ | 1,260,148 | \$ | 2,704,219 | \$ | 4,225,254 | \$ | 2,757,353 | \$ | 2,712,795 | \$ | 13,659,769 |
| Asian American | \$ | 2,275,300 | \$ | 2,670,228 | \$ | 4,351,406 | \$ | 19,290,709 | \$ | 17,598,149 | \$ | 46,185,792 |
| Hispanic American | \$ | 33,132 | \$ | 10,994 | \$ | 50,752 | \$ | 67,619 | \$ | 3,741 | \$ | 166,237 |
| Native American | \$ | 6,418 | \$ | 6,068 | \$ | 1,866 | \$ | 484,979 | \$ | 140,126 | \$ | 639,457 |
| TOTAL MINORITY | \$ | 3,574,997 | \$ | 5,391,508 | \$ | 8,629,278 | \$ | 22,600,660 | \$ | 20,454,811 | \$ | 60,651,255 |
| Nonminority Female | \$ | 4,979,449 | \$ | 7,115,161 | \$ | 6,022,394 | \$ | 8,369,177 | \$ | 4,932,606 | \$ | 31,418,787 |
| TOTAL M/WBE | \$ | 8,554,446 | \$ | 12,506,669 | \$ | 14,651,672 | \$ | 30,969,837 | \$ | 25,387,418 | \$ | 92,070,041 |
| NON-M/WBE | \$ | 586,134,217 | \$ | 757,865,521 | \$ | 889,039,114 | \$ | 1,134,631,731 | \$ | 1,185,837,806 | \$ | 4,553,508,389 |
| TOTAL FIRMS | \$ | 594,688,664 | \$ | 770,372,190 | \$ | 903,690,785 | \$ | 1,165,601,567 | \$ | 1,211,225,224 | \$ | 4,645,578,431 |
| Business Ownership Classification | 2014 |  | 2015 |  | 2016 |  | 2017 |  | 2018 |  | TOTAL |  |
|  | (\%) |  | (\%) |  | (\%) |  | (\%) |  | (\%) |  | (\%) |  |
| Black American |  | 0.21\% |  | 0.35\% |  | 0.47\% |  | 0.24\% |  | 0.22\% |  | 0.29\% |
| Asian American |  | 0.38\% |  | 0.35\% |  | 0.48\% |  | 1.66\% |  | 1.45\% |  | 0.99\% |
| Hispanic American |  | 0.01\% |  | 0.00\% |  | 0.01\% |  | 0.01\% |  | 0.00\% |  | 0.00\% |
| Native American |  | 0.00\% |  | 0.00\% |  | 0.00\% |  | 0.04\% |  | 0.01\% |  | 0.01\% |
| TOTAL MINORITY |  | 0.60\% |  | 0.70\% |  | 0.95\% |  | 1.94\% |  | 1.69\% |  | 1.31\% |
| Nonminority Female |  | 0.84\% |  | 0.92\% |  | 0.67\% |  | 0.72\% |  | 0.41\% |  | 0.68\% |
| TOTAL M/WBE |  | 1.44\% |  | 1.62\% |  | 1.62\% |  | 2.66\% |  | 2.10\% |  | 1.98\% |
| NON-M/WBE |  | 98.56\% |  | 98.38\% |  | 98.38\% |  | 97.34\% |  | 97.90\% |  | 98.02\% |
| TOTAL FIRMS |  | 100.00\% |  | 100.00\% |  | 100.00\% |  | 100.00\% |  | 100.00\% |  | 100.00\% |

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As indicated in Tables 21 and 22, one-hundred and fifty-seven (157) MWBEs represented $1.94 \%$ of all firms to be paid dollars in Goods, averaging $\$ 238,008$ per firm. In comparison, 7,930 non-MWBE firms represented $98.06 \%$ of all firms in Goods, averaging $\$ 462,841$ per firm.

Table 21: Prime Utilization - Goods by Number of Firms
In the Relevant Market
Number of Businesses by Business Ownership and Fiscal Year
FY 2014-2018
North Carolina Disparity Study

|  | African American |  | Asian American |  | Hispanic <br> American |  | Native American |  | Total MBE |  | Nonminority Female |  | Total M/WBE |  | Non-M/WBE |  | TOTAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| 2014 | 11 | 0.29\% | 2 | 0.05\% | 5 | 0.13\% | 1 | 0.03\% | 19 | 0.50\% | 51 | 1.34\% | 70 | 1.83\% | 3747 | 98.17\% | 3817 | 19.36\% |
| 2015 | 10 | 0.21\% | 4 | 0.09\% | 3 | 0.06\% | 3 | 0.06\% | 20 | 0.43\% | 58 | 1.24\% | 78 | 1.67\% | 4594 | 98.33\% | 4672 | 23.70\% |
| 2016 | 12 | 0.27\% | 5 | 0.11\% | 4 | 0.09\% | 4 | 0.09\% | 25 | 0.55\% | 69 | 1.53\% | 94 | 2.08\% | 4424 | 97.92\% | 4518 | 22.92\% |
| 2017 | 11 | 0.31\% | 6 | 0.17\% | 6 | 0.17\% | 2 | 0.06\% | 25 | 0.70\% | 65 | 1.83\% | 90 | 2.53\% | 3470 | 97.47\% | 3560 | 18.06\% |
| 2018 | 12 | 0.38\% | 7 | 0.22\% | 4 | 0.13\% | 2 | 0.06\% | 25 | 0.79\% | 68 | 2.16\% | 93 | 2.95\% | 3056 | 97.05\% | 3149 | 15.97\% |
| Total 2014-2018 | 56 | 0.28\% | 24 | 0.12\% | 22 | 0.11\% | 12 | 0.06\% | 114 | 0.58\% | 311 | 1.58\% | 425 | 2.16\% | 19291 | 97.84\% | 19716 | 100.00\% |
| Total Unique <br> Number of <br> Businesses | 26 | 0.32\% | 8 | 0.10\% | 11 | 0.14\% | 4 | 0.05\% | 49 | 0.61\% | 108 | 1.34\% | 157 | 1.94\% | 7930 | 98.06\% | 8087 | 100.00\% |

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

Table 22: Prime Utilization -Goods by Dollars
In the Relevant Market
FY 2014-2018
North Carolina Disparity Study

| Business Ownership Classification | 2014 |  | 2015 |  | 2016 |  | 2017 |  | 2018 |  | TOTAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (\$) |  | (\$) |  | (\$) |  | (\$) |  | (\$) |  | (\$) |  |
| Black American | \$ | 592,065 | \$ | 400,334 | \$ | 700,379 | \$ | 444,942 | \$ | 408,603 | \$ | 2,546,324 |
| Asian American | \$ | 4,351,505 | \$ | 5,905,426 | \$ | 2,214,095 | \$ | 1,141,004 | \$ | 605,201 | \$ | 14,217,231 |
| Hispanic American | \$ | 14,766 | \$ | 54,992 | \$ | 94,412 | \$ | 242,644 | \$ | 377,888 | \$ | 784,703 |
| Native American | \$ | 8,000 | \$ | 35,103 | \$ | 36,193 | \$ | 34,546 | \$ | 49,852 | \$ | 163,694 |
| TOTAL MINORITY | \$ | 4,966,336 | \$ | 6,395,855 | \$ | 3,045,079 | \$ | 1,863,136 | \$ | 1,441,545 | \$ | 17,711,952 |
| Nonminority Female | \$ | 3,687,348 | \$ | 3,679,974 | \$ | 3,523,546 | \$ | 4,951,232 | \$ | 3,813,135 | \$ | 19,655,234 |
| TOTAL M/WBE | \$ | 8,653,684 | \$ | 10,075,829 | \$ | 6,568,625 | \$ | 6,814,369 | \$ | 5,254,679 | \$ | 37,367,186 |
| NON-M/WBE | \$ | 546,431,148 | \$ | 473,851,939 | \$ | 434,720,303 | \$ | 850,677,859 | \$ | 1,364,645,023 | \$ | 3,670,326,273 |
| TOTAL FIRMS | \$ | 555,084,832 | \$ | 483,927,769 | \$ | 441,288,928 | \$ | 857,492,228 | \$ | 1,369,899,703 | \$ | 3,707,693,459 |
| Business Ownership Classification | 2014 |  | 2015 |  | 2016 |  | 2017 |  | 2018 |  | TOTAL |  |
|  | (\%) |  | (\%) |  | (\%) |  | (\%) |  | (\%) |  | (\%) |  |
| Black American | 0.11\% |  | 0.08\% |  | 0.16\% |  | 0.05\% |  | 0.03\% |  | 0.07\% |  |
| Asian American | 0.78\% |  | 1.22\% |  | 0.50\% |  | 0.13\% |  | 0.04\% |  | 0.38\% |  |
| Hispanic American | 0.00\% |  | 0.01\% |  | 0.02\% |  | 0.03\% |  | 0.03\% |  | 0.02\% |  |
| Native American | 0.00\% |  | 0.01\% |  | 0.01\% |  | 0.00\% |  | 0.00\% |  | 0.00\% |  |
| TOTAL MINORITY | 0.89\% |  | 1.32\% |  | 0.69\% |  | 0.22\% |  | 0.11\% |  | 0.48\% |  |
| Nonminority Female | 0.66\% |  | 0.76\% |  | 0.80\% |  | 0.58\% |  | 0.28\% |  | 0.53\% |  |
| TOTAL M/WBE | 1.56\% |  | 2.08\% |  | 1.49\% |  | 0.79\% |  | 0.38\% |  | 1.01\% |  |
| NON-M/WBE | 98.44\% |  | 97.92\% |  | 98.51\% |  | 99.21\% |  | 99.62\% |  | 98.99\% |  |
| TOTAL FIRMS | 100.00\% |  | 100.00\% |  | 100.00\% |  | 100.00\% |  | 100.00\% |  | 100.00\% |  |

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

North Carolina tracks subcontracting dollars allocated to MWBEs but does not completely track Non-MWBE subcontractors. 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. 70 This analysis was only conducted for construction and architecture \& engineering contracts which had 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 $\$ 12,595,854$ during the Study Period, $1.84 \%$ of the total Construction paid dollars, while Nonminority Female owned firms were paid a total of $\$ 36,856,059,5.39 \%$ of the total Construction paid dollars. MWBEs received $7.24 \%$ of the total Construction paid dollars (Table 23).

Table 23: Total Utilization - Construction by Dollars (Prime \& Subcontractor Combined) In the Relevant Market

North Carolina Disparity Study

| Business Ownership Classification | 2014 | 2015 | 2016 | 2017 | 2018 | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (\$) | (\$) | (\$) | (\$) | (\$) | (\$) |
| Black American | \$ 1,308,694 | \$ 1,105,185 | \$ 639,720 | \$ 514,355 | \$ 2,113,880 | \$ 5,681,835 |
| Asian American | \$ | \$ 20,100 | \$ 17,710 | \$ | \$ 14,383 | \$ 52,193 |
| Hispanic American | \$ 482,787 | \$ 862,872 | \$ 969,812 | \$ 1,065,182 | \$ 1,901,080 | \$ 5,281,734 |
| Native American | \$ 310,873 | \$ 52,192 | \$ 50,796 | \$ 965,297 | \$ 200,934 | \$ 1,580,092 |
| TOTAL MINORITY | \$ 2,102,355 | \$ 2,040,349 | \$ 1,678,038 | \$ 2,544,835 | \$ 4,230,278 | \$ 12,595,854 |
| Nonminority Female | \$ 8,141,879 | \$ 8,983,129 | \$ 3,200,663 | \$ 6,117,131 | \$ 10,413,257 | \$ 36,856,059 |
| TOTAL M/WBE | \$ 10,244,234 | \$ 11,023,478 | \$ 4,878,701 | \$ 8,661,966 | \$ 14,643,534 | \$ 49,451,913 |
| NON-M/WBE | \$121,968,079 | \$107,788,889 | \$130,250,602 | \$150,610,835 | \$ 123,212,100 | \$ 633,830,505 |
| TOTAL FIRMS | \$ 132,212,312 | \$ 118,812,367 | \$ 135,129,304 | \$ 159,272,800 | \$ 137,855,634 | \$ 683,282,418 |
| Business Ownership Classification | 2014 | 2015 | 2016 | 2017 | 2018 | TOTAL |
|  | (\%) | (\%) | (\%) | (\%) | (\%) | (\%) |
| Black American | 0.99\% | 0.93\% | 0.47\% | 0.32\% | 1.53\% | 0.83\% |
| Asian American | 0.00\% | 0.02\% | 0.01\% | 0.00\% | 0.01\% | 0.01\% |
| Hispanic American | 0.37\% | 0.73\% | 0.72\% | 0.67\% | 1.38\% | 0.77\% |
| Native American | 0.24\% | 0.04\% | 0.04\% | 0.61\% | 0.15\% | 0.23\% |
| TOTAL MINORITY | 1.59\% | 1.72\% | 1.24\% | 1.60\% | 3.07\% | 1.84\% |
| Nonminority Female | 6.16\% | 7.56\% | 2.37\% | 3.84\% | 7.55\% | 5.39\% |
| TOTAL M/WBE | 7.75\% | 9.28\% | 3.61\% | 5.44\% | 10.62\% | 7.24\% |
| NON-M/WBE | 92.25\% | 90.72\% | 96.39\% | 94.56\% | 89.38\% | 92.76\% |
| TOTAL FIRMS | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% |

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In reference to A\&E Services, as shown in the table below, MBEs received $\$ 4,461,299$ during the Study Period, $2.02 \%$ of the total A\&E Services paid dollars, while Nonminority Female owned firms were paid a total of $\$ 16,502,020,7.46 \%$ of the total A\&E Services paid dollars. MWBEs received $9.48 \%$ of the total A\&E paid dollars (Table 24).

Table 24: Total Utilization - A\&E by Dollars (Prime \& Subcontractor Combined) In the Relevant Market In the Relevant Market

North Carolina Disparity Study

| Business Ownership Classification | $\frac{2014}{(\$)}$ |  |  | 2015 | 2016 |  | 2017 |  | 2018 |  | TOTAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | (\$) |  | (\$) |  | (\$) |  | (\$) |  | (\$) |
| Black American | \$ | - | \$ | 516,260 | \$ | 2,640 | \$ | 1,146,194 | \$ | 134,177 | \$ | 1,799,271 |
| Asian American |  | 2,154 | \$ | 20,894 | \$ | 21,000 | \$ | - | \$ |  | \$ | 44,048 |
| Hispanic American | \$ | 128,909 | \$ | 93,415 | \$ | 130,629 | \$ | 109,015 | \$ | 283,947 | \$ | 745,915 |
| Native American | \$ | 97,801 | \$ | 19,196 | \$ | 8,994 | \$ | 145,235 | \$ | 1,600,838 | \$ | 1,872,065 |
| TOTAL MINORITY | \$ | 228,864 | \$ | 649,765 | \$ | 163,263 | \$ | 1,400,445 | \$ | 2,018,962 | \$ | 4,461,299 |
| Nonminority Female | \$ | 2,585,293 | \$ | 2,564,817 | \$ | 1,624,963 | \$ | 3,487,192 | \$ | 6,239,755 | \$ | 16,502,020 |
| TOTAL M/WBE | \$ | 2,814,157 | \$ | 3,214,582 | \$ | 1,788,226 | \$ | 4,887,637 | \$ | 8,258,717 | \$ | 20,963,318 |
| NON-M/WBE | \$ | 56,991,253 | \$ | 36,523,410 | \$ | 28,178,468 | \$ | 36,640,007 | \$ | 41,782,033 | \$ | 200,115,171 |
| TOTAL FIRMS | \$ | 59,805,410 | \$ | 39,737,992 | \$ | 29,966,694 | \$ | 41,527,644 | \$ | 50,040,750 | \$ | 221,078,489 |
| Business Ownership Classification | 2014 |  | 2015 |  | 2016 |  |  | 2017 | 2018 |  | TOTAL |  |
|  | (\%) |  | (\%) |  | (\%) |  |  | (\%) | (\%) |  | (\%) |  |
| Black American | 0.00\% |  | 1.30\% |  | 0.01\% |  | 2.76\% |  | 0.27\% |  | 0.81\% |  |
| Asian American | 0.00\% |  | 0.05\% |  | 0.07\% |  |  | 0.00\% | 0.00\% |  | 0.02\% |  |
| Hispanic American | 0.22\% |  | 0.24\% |  | 0.44\% |  |  | 0.26\% | 0.57\% |  | 0.34\% |  |
| Native American | 0.16\% |  | 0.05\% |  | 0.03\% |  | 0.35\% |  | 3.20\% |  | 0.85\% |  |
| TOTAL MINORITY | 0.38\% |  | 1.64\% |  | 0.54\% |  | 3.37\% |  | 4.03\% |  | 2.02\% |  |
| Nonminority Female | 4.32\% |  | 6.45\% |  | 5.42\% |  | 8.40\% |  | 12.47\% |  | 7.46\% |  |
| TOTAL M/WBE | 4.71\% |  | 8.09\% |  | 5.97\% |  | 11.77\% |  | 16.50\% |  | 9.48\% |  |
| NON-M/WBE | 95.29\% |  | 91.91\% |  | 94.03\% |  | 88.23\% |  | 83.50\% |  | 90.52\% |  |
| TOTAL FIRMS | 100.00\% |  | 100.00\% |  | 100.00\% |  | 100.00\% |  | 100.00\% |  | 100.00\% |  |

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There is additional utilization analysis, by State of North Carolina Department, Agencies, and Divisions (Appendix E) and a breakdown of Utilization by County (Appendix H).

## G. 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 MWBEs as measured against their availability in the North Carolina marketplace.

> DISPARITY INDICES calculate the difference between the percentage of North Carolina's UTILIZATION of MWBEs during the Study Period and the AVAILABILITY percentage of MWBEs.

## 1. Methodology

The statistical approach to answer this question is to assess the existence and extent of disparity by comparing the MWBE utilization percentages (by dollars) to the percentage of the total pool of MWBE 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 MWBE firms utilized (U) divided by the percentage of such firms available in the marketplace, (A):

$$
\begin{array}{lll}
\text { Let: } & \mathrm{U} & \text { =Utilization percentage for the MWBE group } \\
& \text { A } & \text { =Availability percentage for the MWBE group } \\
\text { DI } & \text { =Disparity Index for the MWBE group } \\
\text { DI } & =\text { U/A }
\end{array}
$$

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 hundred (100.00) 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 Industry Category and for each race/gender/ethnicity group.

## 2. 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 1.00 is considered to be overutilized. The disparity indices impact as designated in the tables below 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 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 MWBE group, and in each Industry 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 establish an inference that ongoing effects of discrimination are adversely affecting market outcomes for underutilized groups. Accordingly, such findings will impact the recommendations provided in this Study. GSPC will, in such a case, make recommendations for consideration of appropriate and narrowly tailored race/ethnicity/gender-neutral remedies for this discrimination to give all firms equal access to public contracting within North Carolina. GSPC will also, if appropriate, recommend narrowly tailored race/ethnicity/gender-conscious remedies to remedy identified barriers and forms of discrimination likely affected by such discrimination. 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 upon 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 purchasing processes of North Carolina.

## 3. Prime Disparity Indices

Tables 25 provide prime disparity ratios over the Study Period in the relevant market. Detailed disparity tables by year and over the Study Period corresponding to Tables 25 are in Appendix C. In Table 25, there was statistically significant underutilization in prime contracts for all MWBEs groups, except Asian American owned firms in Other Services and Goods. Non-MWBEs were overutilized.

Table 25: Disparity Indices - Prime
Business Ownership Classification by Fiscal Year
North Carolina Disparity Study

| Business Ownership <br> Classification | Construction | Architecture <br> \& Engineering | Professional <br> Services | Other <br> Service | Goods |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Black American | $4.21^{*}$ | $2.59^{*}$ | $0.82^{*}$ | $4.29^{*}$ | $2.30^{*}$ |
| Asian American | $0.74^{*}$ | $0.33^{*}$ | $1.23^{*}$ | $168.75^{*}$ | $89.54^{* *}$ |
| Hispanic American | $14.87^{*}$ | $7.9^{*}$ | $1.99^{*}$ | $0.51^{*}$ | $3.13^{*}$ |
| American Indian | $9.20^{*}$ | $42.17^{*}$ | $2.80^{*}$ | $4.61^{*}$ | $1.70^{*}$ |
| TOTAL MBE | $\mathbf{6 . 6 7 ^ { * }}$ | $\mathbf{7 . 3 5 ^ { * }}$ | $1.08^{*}$ | $15.47^{*}$ | $\mathbf{1 0 . 9 8 ^ { * }}$ |
| Nonminority Female | $33.86^{*}$ | $50.78^{*}$ | $19.55^{*}$ | $17.58^{*}$ | $14.79^{*}$ |
| TOTAL M/WBE | $\mathbf{1 6 . 8 3 ^ { * }}$ | $\mathbf{2 6 . 4 3 ^ { * }}$ | $6.24^{*}$ | $16.13^{*}$ | $\mathbf{1 2 . 7 0 ^ { * }}$ |
| NON-M/WBE | $142.03^{*}$ | $133.83^{*}$ | $138.34^{*}$ | $111.75^{*}$ | $107.52^{*}$ |

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## Legend:

* Statistically significant disparity (Confidence interval of 95\% and probability of error of less than 5\%).
**Very small number to produce statistical significance

$$
\begin{aligned}
& \text { Significant Disparity (Disparity percentage below 80\%). } \\
& \text { Disparity (Disparity percentage 80\% to 99.9\%). } \\
& \text { Overutilized (Disparity percentage over 100\%). } \\
& \text { No color is parity }
\end{aligned}
$$

## 4. Total (Prime and Subcontractor) Utilization Disparity Indices

Table 26 provides total utilization (prime plus subcontractor) disparity ratios over the Study Period in the relevant market for Construction and Professional Services. There was no total utilization analysis for Professional Services and Goods because there was little to no subcontracting in those areas. Detailed prime disparity tables by year and over the Study Period corresponding to Table 25 are in Appendix C.

In Table 26, there was underutilization in total utilization of all MWBE groups in all categories. NonMWBEs were overutilized.

Table 26: Disparity Indices - Construction and Professional Services (Prime plus Subcontractor)
Business Ownership Classification by Fiscal Year
North Carolina Disparity Study

| Business Ownership <br> Classification | Construction |  <br> Engineering |
| :--- | :---: | :---: |
| Black American | $6.07^{*}$ | $8.88^{*}$ |
| Asian American | $0.74^{*}$ | $0.63^{*}$ |
| Hispanic American | $18.41^{*}$ | $9.64^{*}$ |
| American Indian | $11.08^{*}$ | $46.19^{*}$ |
| TOTAL MBE | $\mathbf{8 . 7 7 ^ { * }}$ | $\mathbf{1 1 . 4 2 ^ { * }}$ |
| Nonminority Female | $42.99^{*}$ | $53.96^{*}$ |
| TOTAL M/WBE | $\mathbf{2 1 . 5 6 *}$ | $\mathbf{3 0 . 1 0 ^ { * }}$ |
| NON-M/WBE | $139.64^{*}$ | $132.1^{*}$ |

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## Legend:

* Statistically significant disparity (Confidence interval of $95 \%$ and probability of error of less than $5 \%$ ).
**Very small number to produce statistical significance


## Significant Disparity (Disparity percentage below 80\%).

Disparity (Disparity percentage $80 \%$ to $99.9 \%$ ).
Overutilized (Disparity percentage over 100\%).
No color is parity

## H. Conclusion

With few exceptions, every MWBE group was significantly underutilized in each category throughout the Study Period as prime contractors (except Asian Americans in Other Services and Goods), and in every ethnic and gender group in Prime plus Subcontractor.

## VI. ANALYSIS OF PUBLIC CONTRACTING DISPARITIES IN THE STATE OF NORTH CAROLINA (PRIVATE SECTOR ANALYSIS)

## A. Introduction

In this section GSPC considers the market entry, private sector, public contracting and subcontracting outcomes and other relevant market experiences of minority owned relative to non-minority owned firms in the State of North Carolina (NC) Market Area. Our analysis utilizes data from business firms that are either willing, able, or have actually contracted/subcontracted with the State, with the aim of determining if the likelihood of successful contracting/subcontracting opportunities-actual and perceived-with the State 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 indexes, 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 indexes 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/failure could be biased.

Our analysis posits that there are possible confounders of success and failure in the entry of new firms in the marke and public sector contracting/subcontracting that are sources of heterogeneity among business firms that lead to differences in success and failure. Failure to condition on the sources of heterogeneity in success/failure in new firm formation and public sector contracting/subcontracting outcomes can leave simple disparity indexes devoid of substantive policy implications as they ignore the exent to which firm owner race/ethnicity 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 pubic 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 immutable 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 State. In general, the success and failure of minority 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 posit a scenario in which private suppliers of financing systematically exclude or charge higher prices to minority businesses, which potentially increases the cost of which minority owned businesses can provide services required under public contracts relative to non-minority owned
businesses. ${ }^{71}$ This private discrimination means that as minority owned firms may only have recourse to higher cost financing due to facing discrimination in private sector capital markets, which compromises the competitiveness of their bids. Such a perspective on discrimination suggests that barriers faced by minority 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 27 reports on firm ownership type and revenue for the State from the US Census Bureau's 2012 Survey of Business Owners (SBO). ${ }^{72}$ The SBO Data are collected every 5 years since 1972 , for years ending in " 2 " and " 7 " as part of the economic census. ${ }^{73}$ The program began as a special project for minority owned businesses in 3369 and was incorporated into the economic census in 1972 along with the Survey of Women-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 State, Table 27 reveals that relative to Non-MWBE owned firms, the revenue shares of each minority owned firm never exceeds 4.2 percent (Women). ${ }^{74}$ With the exception of firms owned by African Americans, the revenue shares of other Minority and Female owned Business Enterprises (MWBEs) never exceeds 7 tenths of one percent. In every instance MWBEs have revenue shares far smaller than their firm representation shares. Relative to firms owned by Non-MWBEs in the NC Market Area, exclusive of Female owned firms-some of whom are non-MWBE-the MWBE revenue shares are an order of magnitude below their firm representation shares. This consistent with and suggestive of-but not necessarily causal evidence for-MWBEs facing discriminatory barriers in the private sector of the NC Market Area. ${ }^{75}$

[^35]
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Table 27: Firm Ownership Type and Revenue Characteristics

## For NC Market Area: <br> 2012 Survey Of Business Owners

| Ownership Structure | Number of Firms | Percentage of all Firms (approximate) | Market Area Total Revenue $(\$ 1,000)$ | Percentage of Market Area Total Revenue (approximate) | Ratio of Firm Share to Revenue Share (approximate) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All | 805,595 | 100 | 847,349,408 | 100 | 1.0 |
| Women | 287,058 | . 3563 | 36,745,575 | . 0425 | 8.38 |
| Non-MWBE | 630,091 | .7821 | 286,239,203 | . 3377 | 2.32 |
| African-American | 112,892 | . 1401 | 6,059,369 | . 0072 | 19.45 |
| American Indian \& Alaskan Native | 11,669 | . 0145 | 1,116,144 | . 0012 | 12.08 |
| Asian | 27,112 | . 0335 | 8,729,685 | . 0103 | 3.25 |
| Asian Indian | 6,477 | .0081 | 3,460,918 | .0041 | 1.97 |
| Chinese | 5,307 | . 0065 | 2,916,454 | . 0034 | 1.91 |
| Filipino | 1,184 | . 0015 | 172,166 | . 0002 | $7 \cdot 5$ |
| Japanese | 684 | . 0008 | 169,563 | . 0002 | 4.0 |
| Korean | 3,424 | . 0042 | 791,960 | . 0009 | 4.67 |
| Vietnamese | 7,430 | . 0092 | 593,179 | . 0007 | 13.14 |
| Other Asian | 3,019 | . 0037 | 611,579 | . 0007 | 5.28 |
| Native Hawaiian \& Other Pacific Islander | 724 | . 0009 | 42,301 | . 0001 | 9.0 |
| Hispanic | 34,894 | . 0432 | 4,782,767 | . 0057 | 7.58 |
| Some Other Race | 16,135 | . 0199 | 1,463.457 | . 0017 | 11.71 |
| Publicly Held and not classifiable by race, gender, ethnicity | 14,749 | . 0182 | 543,654,079 | . 6416 | . 028 |

Source: US Census Bureau 2012 Survey of Business Owners. ${ }^{\text {a }}$ Value suppressed to preserve confidentiality as a result of very few firms or there are one or two large firms that dominate the statistic.

Given that publicly held firms are not usually classifiable by Minority and Women Business Enterprise (MWBE) status, and account for a disproportionate share of revenues, a simple comparison of MWBE firm and revenue share may not inform the existence of any private sector disparities with precision. In this context, the ratio of a MWBE market share to revenue share may be more informative of disparities. ${ }^{76}$ For example, in the case of firms owned by African Americans, this ratio is (.1401)/(.0072) or approximately 19.46, suggesting that the revenue share of firms owned by African Americans would have to increase by a factor of approximately 19 to achieve firm share parity in the NC Market Area. For firms owned by NonMWBEs this ratio is approximately $(.7821) /(.3377)=2.32$. Thus, relative to Non-MWBE owned firms, those owned by African Americans are revenue underrepresented in the NC market area by a factor of approximately $19.46 / 2.31=8.42$, which is the highest underrepresentation for all MWBEs in the NC market area.

Table 28 replicates Table 27, to the extent the SBO data enable, for the NC Market Area construction sector-a sector which is a significant venue for public sector contracting. ${ }^{77}$ As in the case of the private sector overall in Table 27, in general, all minority owned construction firms have revenue shares below 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 NC Market Area. For four of the classifiable MWBE construction firms in the NC Market Area, the revenues were suppressed due to confidentiality issues. The firm revenue 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 (.0630)/(.0137) or approximately 4.59 , suggesting that the revenue share of construction firms owned by African-Americans would have to increase by a least a factor of approximately 4 to achieve firm share parity in the NC Market Area. For construction firms owned by Non-MWBEs this ratio is approximately $(.8574) /(.7807)=1.09$. Thus, relative to Non-MWBE owned construction firms, those owned by African Americans are revenue underrepresented in the NC market area by a factor of approximately 4.59/1.09 = 4.21. For construction firms owned by Asian-Indians, the underrepresentation is the highest.

[^36]Table 28: Firm Ownership Type and Revenue Characteristics
For NC Market Area Construction Sector:
2012 Survey Of Business Owners

| Ownership Structure | Number of Firms | Percentage of all Firms (approximate) | Market Area Total Revenue (\$1,000) | Percentage of Market Area Total Revenue (approximate) | Ratio of Firm Share to <br> Revenue <br> Share <br> (approximate) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All | 100,710 | 100 | 41,487,760 | 100 | 1.0 |
| Women | 9,529 | . 0943 | 2,910,297 | . 0701 | 1.34 |
| Non-MWBE | 86,658 | . 8574 | 32,410,412 | .7807 | 1.09 |
| African-American | 6,286 | . 0630 | 568,572 | . 0137 | 4.59 |
| American Indian \& Alaskan Native | 2,814 | . 0277 | 240,657 | .0058 | 4.77 |
| Asian | 653 | . 0065 | 133,725 | .0032 | 2.03 |
| Asian Indian | 88 | . 0087 | 40,236 | . 0009 | 9.67 |
| Chinese | 175 | . 0017 | Suppressed ${ }^{\text {a }}$ | Suppressed ${ }^{\text {a }}$ | Suppressed ${ }^{\text {a }}$ |
| Filipino | 15 | . 00015 | 28,032 | . 0006 | . 250 |
| Japanese | 16 | . 00015 | 1,670 | . 00004 | 3.75 |
| Korean | 207 | . 0020 | 34,006 | . 0008 | 2.50 |
| Vietnamese | 83 | .00082 | Suppressed ${ }^{\text {a }}$ | Suppressed ${ }^{\text {a }}$ | Suppressed ${ }^{\text {a }}$ |
| Other Asian | 103 | . 0010 | Suppressed ${ }^{\text {a }}$ | Suppressed ${ }^{\text {a }}$ | Suppressed ${ }^{\text {a }}$ |
| Native Hawaiian \& Other Pacific Islander | 91 | .00091 | Suppressed ${ }^{\text {a }}$ | Suppressed ${ }^{\text {a }}$ | Suppressed ${ }^{\text {a }}$ |
| Hispanic | 8,844 | .0878 | 1,084,541 | . 0261 | $3 \cdot 36$ |
| Some Other Race | 4,485 | . 0445 | 460,371 | . 0111 | 4.0 |
| Publicly Held and not classifiable by race, gender, ethnicity | 526 | . 0052 | 7,689,589 | . 1853 | . 028 |

Source: US Census Bureau 2013 Survey of Business Owners. ${ }^{a}$ 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 $27-28$ suggest that in the NC 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 MWBE in the NC Market Area private sector is associated with lower firm revenue, absolutely and relative to their firm share in the market, this lends some support to the "but-for" justification for affirmative action in public procurement. Lower revenues for MWBEs in the NC Market Area is suggestive, but does not necessarily prove, the existence ofprivate discimination that undermines their capacity to compete with non-minority owned firms for public contracting opportunities. This could motivate a private discrimination justification for Affirmative Action in the NC procurement policies, otherwise NC 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 NC Market Area, GSPC estimated the parameters of a Logit regression model using 2018 American Community Survey (ACS) data from the Integrated Public Use Microdata Series (IPUMS) housed at the University of Minnesota. ${ }^{78}$ 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 2018 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 customary in the literature that are utilized to explain self-employment, so as to estimate the effects of MWBE status on self-employment while minimizing and/or eliminating confounding factors. ${ }^{79}$ 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 -value $\leq .10$, which we highlight in bold for all parameter estimates

In the GSPC Logit regression 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 MWBE status indicators (e.g. African American, Female), the excluded category is Non-MWBE Males, and a positive (negative) odds ratio indicates that relative to Non-MWBE Males, having that MWBE characteristic increases (decreases) the likelihood of being self-employed in the NC Market Area. The MWBE status indicator are of primary interest, as they inform the extent to which MWBE status is a driver of diparaties in outcomes. The other covariates serve as controls for firm capacity.

[^37]Table 29 reports parameter estimates across all business sectors in the NC Market Area. The estimated odds ratios with statistical significance suggest that relative to Non-MWBE Males, Females, African Americans, Hispanic Americans, American Indians, and Other Race Americans, are less likely to be self-employed in the NC Market Area. This is suggestive of firms owned by Females, African Americans, Hispanic Americans, American Indians, and Other Race Americans facing barriers to self-employment in the NC Market Area. The lower likelihood of MWBEs being new firms in the NC Market Area could reflect disparities in public contracting as Chatterji, Chay, and Fairlie (2014) find that the self-emploment rate of Black Americans is increasing with respect to the provisioning and establishment of MWBE set-aside public procurement programs. ${ }^{80}$

Table 30 reports parameter estimates for the construction sector in the NC Market Area-a important sector in the market for public procurement. The estimated odds ratios with statistical significance suggest that relative to Non-MWBE Males, firms owned by Females, African Americans, and Asian Americans are less likely to be self-employed in the NC Market Area. This is suggestive of firms owned by Females, African Americans, Asian Americans facing barriers to self-employment in the NC Market Area construction sector. The lower likelihood of MWBEs being new construction firms in the NC Market Area could reflect disparities in public contracting, as Marion (2009) finds that the self-emploment rate of Black Americans in construction is increasing with respect to the provisioning and establishment of MWBE set-aside public construction procurement programs. ${ }^{81}$

[^38]
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Table 29: Self-Employment/Business Ownership Model:
Logit Parameter Odds Ratio Estimates From The 2018 American Community Survey

|  | Coefficient | Standard Error | P-value |
| :---: | :---: | :---: | :---: |
| Regressand: Self Employment in The State of North Carolina (Binary) |  |  |  |
| Regressors: |  |  |  |
| Constant | . 0532 | . 0017 | . 0000 |
| Age | 1.14 | . 0432 | . 0045 |
| Age-Squared | . 8358 | . 0018 | . 0000 |
| Married | 1.17 | . 0284 | . 0371 |
| Female | . 8132 | . 0527 | . 0632 |
| African American | . 7382 | . 0274 | . 0163 |
| Hispanic American | . 9359 | . 0734 | . 0853 |
| American Indian | . 8135 | . 1748 | . 0468 |
| Pacific Islander American | . 9134 | . 1327 | . 1437 |
| Asian American | . 8638 | . 1718 | . 2149 |
| Other Race American | . 9271 | .5814 | . 0174 |
| College Degree | 1.25 | . 0482 | . 0381 |
| Speaks English Only | . 9163 | . 1628 | . 0635 |
| Disabled | . 7342 | . 0742 | . 2143 |
| Value of Home (\$) | 1.63 | . 0364 | . 0485 |
| Interest, Dividend, and Rental Income (\$) | 1.36 | . 0174 | . 0217 |
| Mortgage Payment (\$) | 1.19 | . 0148 | . 0163 |
| Number of Observations | 18,427 |  |  |
| Pseudo-R ${ }^{2}$ | . 093 |  |  |

Bold P-value indicates statistical significance level of .10 or lower.
Source of Data: American Community Survey 2018, IPUMs USA

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Table 30: Construction Sector Self-Employment/Business Ownership Model:
Logit Parameter Odds Ratio Estimates From The 2018 American Community Survey

|  | Cocfficient | Standard Error | \|P- <br> value |
| :---: | :---: | :---: | :---: |
| Regressand: Self Employment in The State of North Carolina (Binary) |  |  |  |
| Regressors: |  |  |  |
| Constant | . 0412 | . 0017 | . 0371 |
| Age | 1.12 | . 0372 | . 0000 |
| Age-Squared | . 9148 | . 0016 | . 1735 |
| Married | 1.21 | . 0538 | . 0248 |
| Female | . 4364 | . 0417 | . 0314 |
| African American | . 1273 | . 0278 | . 0426 |
| Hispanic American | . 8314 | . 1732 | . 1684 |
| American Indian | 1.38 | . 9137 | . 2685 |
| Pacific Islander American | . 1746 | .5126 | .3153 |
| Asian American | . 6314 | . 1135 | .0617 |
| Other Race American | 1.12 | . 3274 | . 1374 |
| College Degree | . 9427 | . 1362 | .0538 |
| Speaks English Only | . 9817 | . 4132 | . 1641 |
| Disabled | . 6832 | . 4738 | . 1261 |
| Value of Home (\$) | 1.18 | . 0681 | . 0261 |
| Interest, Dividend, and Rental Income (\$) | 1.23 | . 0973 | . 0683 |
| Mortgage Payment (\$) | 1.13 | . 0413 | . 1734 |
| Number of Observations | 18,427 |  |  |
| Pseudo-R ${ }^{2}$ | . 074 |  |  |

Bold P-value indicates statistical significance level of .10 or lower.
Source of Data: American Community Survey 2018, IPUMs USA

## B. GSPC Data

Our State disparity analysis is based on survey data compiled by GSPC, and constitutes a sample of firms that responded to a widely distributed survey. The GSPC survey was a questionnaire that captured data on firm and individual owner characteristics. The GSPC research interest is in the extent to which a firm's status as SMWDBE conditions success/failure in contracting with the State 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 SMWDBE status is a possible cause of public contracting disparities based on race/gender/ethnicity at the State. Table 31 reports, for the 265 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 covariates in our econometric specifications.

Table 31: Covariate Summary

| Covariate | Description | Mean | Standard Deviation | Number of Observations |
| :---: | :---: | :---: | :---: | :---: |
| Firm entered market within past five years | Binary Variable 1 = yes | . 381 | . 487 | 265 |
| Number of times denied a commercial bank loan | $\begin{aligned} & \text { Ordinal Variable: } \\ & 1=0 \\ & 2=1-10 \\ & 3=11-25 \\ & 4=26-50 \\ & 5=51-100 \\ & 6=\text { Over } 100 \end{aligned}$ | . 865 | . 637 | 265 |
| Number of prime bids submitted on NC projects | $\begin{aligned} & \text { Ordinal Variable: } \\ & 1=0 \\ & 2=1-10 \\ & 3=11-25 \\ & 4=26-50 \\ & 5=51-100 \\ & 6=\text { Over } 100 \end{aligned}$ | 1.30 | . 834 | 265 |
| Number of NC contracts awarded between 1/1/146/30/17 | Ordinal Variable: $\begin{aligned} & 1=0 \\ & 2=1-10 \\ & 3=11-25 \\ & 4=26-50 \\ & 5=51-100 \\ & 6=\text { Over } 100 \end{aligned}$ | 1.09 | . 617 | 265 |
| Number of NC subcontracts awarded between 1/1/14 - 6/30/17 | $\begin{aligned} & \text { Ordinal Variable: } \\ & 1=0 \\ & 2=1-10 \\ & 3=11-25 \\ & 4=26-50 \\ & 5=51-100 \\ & 6=\text { Over } 100 \end{aligned}$ | 1.14 | . 696 | 265 |
| Did not serve as a contractor or subcontractor on NC projects between $1 / 1 / 14-6 / 30 / 17$ | Binary Variable 1 = Yes | . 260 | . 439 | 265 |

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| Largest single contract awarded since 1/1/14 | $\begin{aligned} & \text { Ordinal Variable: } \\ & 1=\$ 100,00 \text { or less } \\ & 2=\$ 100,001-\$ 250,000 \\ & 3=\$ 250,001-\$ 500,000 \\ & 4=\$ 500.001-\$ 750,000 \\ & 5=\$ 750,001- \\ & \$ 1,000,000 \\ & 6=\$ 1,000,001- \\ & 1,320,000 \\ & 7=1,320,001- \\ & \$ 1.500,000 \\ & 8=\$ 1,500,001- \\ & \$ 5,000,000 \\ & 9=\$ 5,000,001- \\ & \$ 10,000,000 \\ & 10=0 v e r ~ \$ 10,000,000 \end{aligned}$ | 2.57 | 2.96 | 265 |
| :---: | :---: | :---: | :---: | :---: |
| Firm has experienced private sector discrimination | Binary Variable 1 = Yes | . 177 | . 383 | 265 |
| Firm owner believes informal networks enables business with the State of North Carolina | Binary Variable 1 = Yes | . 517 | . 501 | 265 |
| Owner has more than 20 years of experience | Binary Variable 1 = Yes | . 585 | . 494 | 265 |
| Firm has more than 10 employees | Binary Variable 1 = Yes | . 272 | . 446 | 265 |
| Firm owner has a baccalaureate degree | Binary Variable $1=$ Yes | . 351 | . 478 | 265 |
| Firm gross revenue greater than \$1,500,000 | Binary Variable $1=$ Yes | . 083 | . 276 | 265 |
| Firm bonding limit greater than \$1,500,000 | Binary Variable 1 = Yes | . 049 | . 216 | 265 |
| Financing is a Barrier to Submitting Bids and Securing Contracts from State | Binary Variable 1= Yes | . 151 | . 359 | 265 |
| Firm is in the construction sector | Binary Variable 1 = Yes | . 098 | 298 | 265 |
| Firm is qualified to do business with NC | Binary Variable $1=$ Yes | . 924 | 264 | 265 |
| Firm is registered to do business with NC | Binary Variable 1 = Yes | . 898 | . 303 | 265 |
| Firm is willing and able to do business with NC as a prime contractor | Binary Variable 1 = Yes | . 872 | . 335 | 265 |
| Firm is willing and able to do business with NC as a subcontractor | Binary Variable 1 = Yes | . 939 | . 239 | 265 |
| Firm is a certified minority business enterprise | Binary Variable $1=$ Yes | 234 | . 424 | 265 |
| Firm is a certified Woman business enterprise | Binary Variable 1 = Yes | . 196 | . 398 | 265 |
| Firm is a certified small business enterprise | Binary Variable 1 = Yes | . 313 | . 465 | 265 |
| Firm is a certified disadvantaged business enterprise | Binary Variable $1=$ Yes | . 132 | . 339 | 265 |
| Firm is a historically underutilized business enterprise | Binary Variable 1 = Yes | . 306 | . 461 | 265 |
| Majority Firm Owner is African American | Binary Variable 1= Yes | . 309 | . 463 | 265 |
| Majority Firm Owner is Hispanic | Binary Variable 1= Yes | . 041 | . 199 | 265 |
| Majority Firm Owner is Subcontinent Asian | Binary Variable 1= Yes | 019 | . 136 | 265 |
| Majority Firm Owner is Asian Pacific Islander | Binary Variable 1= Yes | . 011 | . 106 | 265 |
| Majority Firm Owner is American Indian | Binary Variable 1=Yes | . 015 | . 122 | 265 |
| Majority Firm Owner is bi/multiracial | Binary Variable $1=$ Yes | . 004 | . 161 | 265 |
| Majority Firm Owner is Other race | Binary Variable $1=$ Yes | . 004 | . 061 | 265 |
| Majority Firm Owner is a Woman | Binary Variable 1 = Yes | . 411 | . 493 | 265 |

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## C. Statistical and Econometric Framework

Methodologically, the GSPC statistical and econometric analysis of possible SMWDBE public contracting disparities with the NC utilizes a Categorical Regression Model (CRM) framework. ${ }^{82}$ As the covariates measuring public contracting activity/outcomes and and other respondent characteristics in Table 32 are categorical responses to questionaire 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). ${ }^{83}$

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. ${ }^{84}$ 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 nonnminority 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 -value $\leq .10$, which we highlight in bold for all parameter estimates.

[^39]We report/discuss in all instances, the effects of the firm minority status indicators on the outcome of interest. The other regressor covariates, while included in the parameter estimates, are not discussed. Their inclusion in the specification are simply to control for unobserved variables that may determine a firm's capacity, that if omitted, would cause bias in the estimates of the effect of a firm's minority status. The analytical exposition of the results also focuses on the instances in which the parameter estimates suggest that Small, Minority, Women, Historically Underutilized, and Disadvantaged Business Enterprises (SMWDBEs) fare worse relative to non-SMWDBEs for the outcomes under consideration.

As nonresponse probabilities are 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. ${ }^{85}$ 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. ${ }^{86}$ 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. ${ }^{87}$

## D. The Relative New Firm Entry Propensities of Minority Firm Owners in NC Market Area

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

To determine if SMWDBE status is a barrier to the formation of new businesses in the NC Market Area, Tables 32-33 report, for each of the distinct SMWDBEs and owner self-reported race/ethnicity in the GSPC sample, the estimated parameters of a Logit BRM with a binary variable for a firm establishing itself

[^40]between the years 2013 - 2018 as the dependent variable. As standard control covariates we include measures of, or proxies 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. As a goodness-of-fit measure, Pseudo- $\mathrm{R}^{2}$ is reported. ${ }^{88}$

The parameter estimates in Tables 32-33 suggest that certified minority business enterprises (MBEs) and firms owned by Black americans, and Asian/Pacific Islanders are more likely to be new firms, as the estimated odds ratio is greater than unity and statistcially significant in those instances. As the excluded group is non-SMWDBEs, to the extent that market experience is an important determinant of and correlated with success in bidding and securing public contracts, that most SMWDBEs in the NC Market Area are no different than non-SMWDBEs in being recent entrants to the market suggests that, with the exception of new firms owned by Black americans, and Asian/Pacific Islanders, the market experience of minority and nonminority owned firms is similar. To the extent this also implies similar knowledge/experience about bidding and securing public contracts, any disparities in public contracting outcomes between SMWDBEs and non-SMWDBEs-with the exception of firms owned by Black americans, and Asian/Pacific Islanders -can't be explained by differential market experience.

[^41]
## State of North Carolina Department of Administration 2020 Disparity Study

Table 32: Logit Parameter Estimates (Odds Ratio):
SMWDBE Status and Firm Entry in NC Market Area

|  | Coefficient | P-value |
| :---: | :---: | :---: |
| Regressand: Firm entered market within past 5 years: (Binary) |  |  |
| Firm owner has more than 20 years' experience | 0.2285 | 0.0000 |
| Firm has more than 10 employees | 0.4631 | 0.0624 |
| Firm owner has a baccalaureate degree | 0.6161 | 0.1338 |
| Firm gross revenue greater than 1.5 million | 0.0000 | 0.0000 |
| Firm Bonding limit greater than 1.5 million | 0.9604 | 0.9648 |
| Financing is a barrier for securing State of North Carolina projects: | 2.5789 | 0.0278 |
| Firm is in the construction sector: Binary | 0.1410 | 0.0019 |
| Firm is qualified to do business with State of North Carolina | 0.6167 | 0.5311 |
| Firm is registered to do business with State of North Carolina | 3.8457 | 0.0338 |
| Firm is a certified minority business enterprise | 3.0612 | 0.0123 |
| Firm is a certified Woman enterprise | 1.0916 | 0.8393 |
| Firm is a certified disadvantaged business enterprise | 0.8092 | 0.6758 |
| Firm is a certified small business enterprise | 0.4717 | 0.0569 |
| Firm is a historically underutilized business enterprise | 0.8627 | 0.7008 |
| Number of Observations | 265 |  |
| Pseudo $\mathrm{R}^{2}$ | 0.2410 |  |

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## State of North Carolina Department of Administration 2020 Disparity Study

## Table 33: Logit Parameter Estimates (Odds Ratio):

Owner Racial/Ethnic Status and Firm Entry in NC Market Area

|  | Coefficient | P-value |
| :---: | :---: | :---: |
| Regressand: Firm entered market within past 5 years: (Binary) |  |  |
| Firm owner has more than 20 years' experience | 0.2493 | 0.0000 |
| Firm has more than 10 employees | 0.5660 | 0.1903 |
| Firm owner has a baccalaureate degree | 0.6215 | 0.1542 |
| Firm gross revenue greater than 1.5 million | 0.0000 | 0.0000 |
| Firm Bonding limit greater than 1.5 million | 1.2361 | 0.7945 |
| Financing is a barrier for securing State of North Carolina projects | 3.2739 | 0.0234 |
| Firm is in the construction sector | 0.1238 | 0.0040 |
| Firm is qualified to do business with State of North Carolina | 0.5637 | 0.5054 |
| Firm is registered to do business with State of North Carolina | 3.1828 | 0.1190 |
| Firm is Black owned: | 3.1400 | 0.0009 |
| Firm is Hispanic owned | 0.9602 | 0.9655 |
| Firm is Subcontinent Asian owned | 0.1491 | 0.1076 |
| Firm is Asian/Pacific Islander owned | 8.0035 | 0.0830 |
| Firm is American Indian owned | 0.0001 | 0.0000 |
| Firm is bi/multiracial owned | 0.0001 | . 00132 |
| Firm is other race owned | 0.0001 | . 00218 |
| Firm is Woman owned | 0.7714 | 0.4063 |
| Number of Observations | 265 |  |
| Pseudo R ${ }^{2}$ | 0.2831 |  |

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## E. SMWDBEs and Bank Loan Denials in The NC Market Area

To the extent that SMWDBEs are credit-constrained as a result of facing discrimination in private lending markets, their capacity to compete for and execute public project could be compromised. In this context, a political jurisdiction that awards public contracts is potentially a passive participant in discrimination as SMWDBEs 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 SMWDBEs in the private sector can rationalize targeted public contracting programs by political jurisdictions, and the capacity and growth of SMWDBEs could be enhanced with access to public contracting opportunites (Bates, 2009). ${ }^{89}$

To determine if SMWDBEs face barriers in the private credit market, Tables 34-35 report, for each of the distinct SMWDBEs and owner self-reported race/ethnicity 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 commercial bank loan firm between the years 2013-2018. Relative to the regressions reported in Tables 34-35, we add additional binary controls to account for differences across firms in their willingness/ability to do business with NC as a prime contractor and subcontractor.

The estimated odds ratios in Table 34 reveal that for the five distinct SMWDBEs in the GSPC sample, relative to non-SMWDBEs-the excluded group in the CRM specification-certified minority business enterprises have more commerical bank loan denials. When disaggregated by the race/ethnicity of owners, the results in Table 35 suggest that firms owned by American Indians have more commercial bank loan denials relative to non-SMWDBEs. This suggests that among SMWDBEs in the NC Market Area, firm owners who are certified small business enterprises and owned by American Indians are most likely to have their capacity to compete in the market for public procurement constrained as a result of private sector credit market discrimination.

[^42]
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Table 34: Ordinal Logit Parameter Estimates (Odds Ratio):
Owner Racial/Ethnic Status and Commercial Bank Loan Denials

|  | Cocfficient | P-value |
| :---: | :---: | :---: |
| Regressand: Number of times denied commercial bank loan (Ordinal) |  |  |
| Firm owner has more than 20 years' experience | 0.6935 | 0.1806 |
| Firm has more than 10 employees | 1.3124 | 0.3699 |
| Firm owner has a baccalaureate degree | 1.0876 | 0.7564 |
| Firm gross revenue greater than 1.5 million | 0.8593 | 0.0681 |
| Firm Bonding limit greater than 1.5 million | 0.7522 | 0.5881 |
| Financing is a barrier for securing State of North Carolina projects | 1.4903 | 0.0416 |
| Firm is in the construction sector | 1.1844 | 0.7474 |
| Firm is qualified to do business with State of North Carolina | 0.7672 | 0.0455 |
| Firm is registered to do business with State of North Carolina | 1.0064 | 0.9859 |
| Firm is willing/able prime contractor for State of North Carolina | 1.1147 | 0.8108 |
| Firm is willing/able subcontractor for State of North Carolina | 1.4835 | 0.4482 |
| Firm is a certified minority business enterprise | 0.6805 | 0.4162 |
| Firm is a certified Woman enterprise | 0.5822 | 0.1676 |
| Firm is a certified disadvantaged business enterprise | 0.8585 | 0.7602 |
| Firm is a certified small business enterprise | 1.6311 | 0.0934 |
| Firm is a historically underutilized business enterprise | 1.8317 | 0.1718 |
| Number of Observations | 265 |  |
| Pseudo R ${ }^{2}$ | 0.0241 |  |

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Table 35: Ordinal Logit Parameter Estimates (Odds Ratio):
SMWDBE Status and Commercial Bank Loan Denials
In NC Market Area

|  | Coefficient | P-Value |
| :---: | :---: | :---: |
| Regressand: Number of times denied commercial bank loan (Ordinal) |  |  |
| Firm owner has more than 20 years' experience | 0.6401 | 0.0914 |
| Firm has more than 10 employees: Binary | 1.2701 | 0.4446 |
| Firm owner has a baccalaureate degree | 0.9027 | 0.7186 |
| Firm gross revenue greater than 1.5 million | 0.5719 | 0.1670 |
| Firm Bonding limit greater than 1.5 million | 0.5764 | 0.0709 |
| Financing is a barrier for securing State of North Carolina projects | 1.6820 | 0.0389 |
| Firm is in the construction sector | 1.1583 | 0.7824 |
| Firm is qualified to do business with State of North Carolina | 1.1094 | 0.7747 |
| Firm is registered to do business with State of North Carolina | 0.9437 | 0.8799 |
| Firm is willing/able prime contractor for State of North Carolina | 1.1787 | 0.7190 |
| Firm is willing/able subcontractor for State of North Carolina | 1.4807 | 0.4628 |
| Firm is Black owned | 0.5644 | 0.0987 |
| Firm is Hispanic owned | 0.6914 | 0.6430 |
| Firm is Subcontinent Asian owned | 0.4391 | 0.5233 |
| Firm is Asian/Pacific Islander owned | 0.1351 | 0.0476 |
| Firm is American Indian owned | 15.8685 | 0.0002 |
| Firm is bi/multiracial owned | 0.0012 | 0.0000 |
| Firm is other race owned | 0.0014 | 0.0000 |
| Firm is Woman owned | 0.8323 | 0.5087 |
| Number of Observations | 265 |  |
| Pseudo R ${ }^{2}$ | 0.0508 |  |

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## F. Are Minority-Owned Firms Less Likely To Compete for Contracts in NC Market Area?

One reason disparities in public contracting outcomes between SMWDBEs and non-SMWDBEs could exist is that relative to non-SMWDBEs, SMWDBEs may be less interested in, and/or less likely to submit bids for public contracts. To determine if this is the case in the NC Market Area, Tables 36-37-11 report Ordinal Logit parameter estimates of a CRM with the number of prime contracting bids submitted by a firm to the NC between 2013-2018 as the dependent variable, for each of the distinct SMWDBEs in the GSPC sample.

The results in Table 36 reveal that SMWDBE status does not have statistically significant effect on the number of prime bid submissions. This suggests that relative to non-SMWDBEs, any differential success in public contracting outcomes cannot be explained by differences in bid submissions. When disaggregating by race/ethnicity, the results in Table 37 reveal that being a bi/multiracial and other race owned has a statistically significant and negative effect on prime bid submission to the State. This raises the possibility that disparities in public contraction outcomes between these type of SMWDBEs and non-SMWDBEs can be explained by differences in prime bid submissions to the State.

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Table 36: Ordinal Logit Parameter Estimates (Odds Ratio):
SMWDBE Status and Number of Prime Bid Submissions to NC
In NC Market Area

|  | Coefficient | P-value |
| :---: | :---: | :---: |
| Regressand: Number of prime bids on State of North Carolina projects (Ordinal) |  |  |
| Firm owner has more than 20 years' experience | 0.7576 | 0.2685 |
| Firm has more than 10 employees | 1.4614 | 0.0397 |
| Firm owner has a baccalaureate degree | 1.1215 | 0.0517 |
| Firm gross revenue greater than 1.5 million | 1.1584 | 0.7703 |
| Firm Bonding limit greater than 1.5 million | 0.8318 | 0.0331 |
| Financing is a barrier for securing State of North Carolina projects | 1.1993 | 0.5671 |
| Firm is in the construction sector | 1.5413 | 0.0147 |
| Firm is qualified to do business with State of North Carolina | 1.2239 | 0.6457 |
| Firm is registered to do business with State of North Carolina | 1.6444 | 0.1301 |
| Firm is willing/able prime contractor for State of North Carolina | 1.2027 | 0.0890 |
| Firm is willing/able subcontractor for State of North Carolina | 1.2724 | 0.0311 |
| Firm is a certified minority business enterprise | 0.8332 | 0.6727 |
| Firm is a certified Woman enterprise | 1.1672 | 0.6366 |
| Firm is a certified disadvantaged business enterprise | 1.1479 | 0.7486 |
| Firm is a certified small business enterprise | 1.3145 | 0.3403 |
| Firm is a historically underutilized business enterprise | 1.4223 | 0.3374 |
| Number of Observations | 265 |  |
| Pseudo $R^{2}$ | 0.0216 |  |

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Table 37: Ordinal Logit Parameter Estimates (Odds Ratio):
SMWDBE Status and Number of Prime Bid Submissions to NC
In NC Market Area

|  | Coefficient | P-value |
| :---: | :---: | :---: |
| Regressand: Number of prime bids on State of North Carolina projects (Ordinal) |  |  |
| Firm owner has more than 20 years' experience: Binary | 0.8377 | 0.4999 |
| Firm has more than 10 employees | 1.5702 | 0.1944 |
| Firm owner has a baccalaureate degree | 1.0407 | 0.8723 |
| Firm gross revenue greater than 1.5 million | 1.1061 | 0.8531 |
| Firm Bonding limit greater than 1.5 million | 0.8602 | 0.7844 |
| Financing is a barrier for securing State of North Carolina projects | 1.1881 | 0.0845 |
| Firm is in the construction sector | 1.4525 | 0.3850 |
| Firm is qualified to do business with State of North Carolina | 1.4973 | 0.0363 |
| Firm is registered to do business with State of North Carolina | 1.3545 | 0.4155 |
| Firm is willing/able prime contractor for State of North Carolina | 1.1290 | 0.7780 |
| Firm is willing/able subcontractor for State of North Carolina | 1.1360 | 0.0565 |
| Firm is Black owned | 1.1829 | 0.5463 |
| Firm is Hispanic owned | 0.6864 | 0.4141 |
| Firm is Subcontinent Asian owned | 0.8725 | 0.8800 |
| Firm is Asian/Pacific Islander owned | 0.1346 | 0.2910 |
| Firm is American Indian owned | 0.8916 | 0.8485 |
| Firm is bi/multiracial owned | 0.9832 | 0.0000 |
| Firm is other race owned | 0.9216 | 0.0000 |
| Firm is Woman owned | 1.3621 | 0.2358 |
| Number of Observations | 265 |  |
| Pseudo R ${ }^{2}$ | 0.0333 |  |

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## G. SMWDBEs And Prime Contracting in NC Market Area

To the extent that frequency of public contract bids reflects past experience as a prime contractor, SMWDBEs can potentially become frequent prime contract bidders by actually gaining experience as successful prime contractors. As such, the frequency of prime bids by SMWDBEs firms need not be a concern if they are actually gaining valuable experience as prime contractors that will translate into frequent contract bids and success later. To explore if this is the case in the NC Market Area, Tables 38-39 report Ordinal Logit BRM parameter estimates where the dependent variable is the number of NC prime contracts awarded to the firm between 2015-2019.

The results in Table 38 suggest that relative to non-SMWDBEs, certified minority and Woman enterprises are less likely to have been awarded prime contracts with the State the odds ratio is less than unity and statistically significant. When disaggregating by the race/ethnicity of firm owners in Table 39, relative to non-SMWDBEs, firms owned by Black Americans, Asian/Pacific Islanders, bi/multiracials, other race were less likely to have prime contracts with the State, as the estimated odds ratio is less than unity and statistically significant in these instances. To the extent that success in public contracting is proportional to having prior prime awards, , the parameter estimates in Tables 38-39 suggest that for firms owned by Black Americans, Asian/Pacific Islanders, bi/multiracials, and other race, any contracting disparities between SMDBEs and non-SMWDBEs can be explained by any differences in having secured prior prime contracts from the State.

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Table 38: Ordinal Logit Parameter Estimates (Odds Ratio):
SMWDBE Status and Number of NC Prime Contracts Awarded In NC Market Area

|  | Coefficient | P-value |
| :--- | :---: | :---: |
| Regressand: \# of State of North Carolina prime contracts <br> awarded 6/1/13-5/30/18 (Ordinal) |  |  |
| Firm owner has more than 20 years' experience | 0.7908 | 0.3688 |
| Firm has more than 10 employees | 1.1536 | $\mathbf{0 . 0 6 5 9}$ |
| Firm owner has a baccalaureate degree | 1.3054 | 0.3349 |
| Firm gross revenue greater than 1.5 million | 1.6967 | 0.4081 |
| Firm Bonding limit greater than 1.5 million | 1.2855 | 0.6964 |
| Financing is a barrier for securing State of North Carolina <br> projects | $\mathbf{0 . 6 5 4 1}$ | $\mathbf{0 . 0 1 0 8}$ |
| Firm is in the construction sector | 1.9757 | 0.8628 |
| Firm is qualified to do business with State of North <br> Carolina | 0.7110 | 0.4189 |
| Firm is registered to do business with State of North <br> Carolina | 1.7558 | 0.2625 |
| Firm is willing/able prime contractor for State of North <br> Carolina | 0.8057 | $\mathbf{0 . 0 6 4 9}$ |
| Firm is a certified minority business enterprise | 0.6714 | $\mathbf{0 . 0 1 7 9}$ |
| Firm is a certified Woman enterprise | 1.1320 | 0.7150 |
| Firm is a certified disadvantaged business enterprise | 1.3854 | 0.2301 |
| Firm is a certified small business enterprise | 265 | 0.4858 |
| Firm is a historically underutilized business enterprise |  |  |
| Number of Observations |  |  |
| Pseudo $R^{2}$ |  |  |

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Table 39: Ordinal Logit Parameter Estimates (Odds Ratio):
SMWDBE Status and Number of NC Prime Contracts Awarded In NC Market Area

|  | Coefficient | P-value |
| :--- | :---: | :---: |
| Regressand:\# of State of North Carolina prime contracts <br> awarded 6/1/13-5/30/18 (Ordinal) |  |  |
| Firm owner has more than 20 years' experience | 0.8616 | $\mathbf{0 . 0 5 9 2}$ |
| Firm has more than 10 employees | 1.1323 | 0.7401 |
| Firm owner has a baccalaureate degree | 1.1389 | 0.6308 |
| Firm gross revenue greater than 1.5 million | 1.6356 | $\mathbf{0 . 0 4 1 4}$ |
| Firm Bonding limit greater than 1.5 million | 0.3195 | 0.6527 |
| Financing is a barrier for securing State of North Carolina <br> projects | 1.8387 | 0.4174 |
| Firm is in the construction sector | 2.2149 | 0.2147 |
| Firm is qualified to do business with State of North Carolina | $\mathbf{0 . 0 1 3 6}$ |  |
| Firm is registered to do business with State of North Carolina | 0.6327 | 0.3088 |
| Firm is willing/able prime contractor for State of North <br> Carolina | 2.0014 | 0.1594 |
| Firm is Black owned | 0.7549 | $\mathbf{0 . 0 2 0 3}$ |
| Firm is Hispanic owned | 1.0765 | 0.8931 |
| Firm is Subcontinent Asian owned | 0.3940 | 0.1767 |
| Firm is Asian/Pacific Islander owned | 0.4240 | $\mathbf{0 . 0 7 9 5}$ |
| Firm is American Indian owned | 0.5755 | 0.1526 |
| Firm is bi/multiracial owned | 0.9143 | $\mathbf{0 . 0 0 1 5}$ |
| Firm is other race owned | 0.8942 | 0.4022 |
| Firm is Woman owned | 0.04317 |  |
| Number of Observations |  |  |
| Pseudo R 2 |  |  |

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## H. SMWDBEs And SubContracting in the NC 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 NC contracts, SMWDBEs 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 SMWDBEs 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 NC Market Area, Tables 40-41 report Ordinal Logit BRM parameter estimates where the dependent variable is the number of NC subcontracts awarded to the firm between 2014-2019.

The results in Table 40 reveal that relative to non-SMWDBEs, certified minority business enterprises, certified Woman enterprises, and historically underutilized business enterprises are subcontractors at lower frequency, as the estimated odds ratio is less than unity and statistically significant in these instances. Disaggregating by race/ethnicity, the results in Table 41 reveal that firms that are owned by Black Americans, Asian/Pacific Islanders, bi/multiracials, and other race are subcontractors at lower frequency, as the estimated odds ration is less than unity and statistically significant in these instances. To the extent that success in public contracting is proportional to having prior subcontracts, the parameter estimates in Tables 40-41 suggest that any contracting disparities between SMWDBEs and non-SMWDBEs can be explained by their relative disadvantage in having secured prior state of NC subcontracts.

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Table 40: Ordinal Logit Parameter Estimates (Odds Ratio):
SMWDBE Status and Number of NC Subcontracts Awarded
In NC Market Area

|  | Coefficient | P-value |
| :--- | :---: | :---: |
| Regressand: \# of State of North Carolina subcontracts <br> awarded 6/1/13-5/30/18 (Ordinal) |  |  |
| Firm owner has more than 20 years' experience | 0.8358 | 0.5250 |
| Firm has more than 10 employees | 0.4260 | $\mathbf{0 . 0 6 8 1}$ |
| Firm owner has a baccalaureate degree | 0.9734 | 0.9332 |
| Firm gross revenue greater than 1.5 million | 2.4728 | 0.6298 |
| Firm Bonding limit greater than 1.5 million | 0.9431 | 0.2992 |
| Financing is a barrier for securing State of North Carolina <br> projects | 2.5162 | 0.8730 |
| Firm is in the construction sector | 0.6622 | 0.3981 |
| Firm is qualified to do business with State of North <br> Carolina | 1.1479 | 0.7602 |
| Firm is registered to do business with State of North <br> Carolina | 3.6362 | $\mathbf{0 . 0 1 7 0}$ |
| Firm is willing/able subcontractor for State of North <br> Carolina | 0.9830 | $\mathbf{0 . 0 9 2 2}$ |
| Firm is a certified minority business enterprise | 0.7829 | $\mathbf{0 . 0 5 7 9}$ |
| Firm is a certified Woman enterprise | 1.5436 | 0.3830 |
| Firm is a certified disadvantaged business enterprise | 1.0828 | 0.8221 |
| Firm is a certified small business enterprise | 0.6916 |  |
| Firm is a historically underutilized business enterprise | 265 |  |
| Number of Observations |  |  |
| Pseudo $R^{2}$ |  | 0.0445 |

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Table 41: Ordinal Logit Parameter Estimates (Odds Ratio):
Owner Racial/Ethnic Status and Number of NC Subcontracts Awarded
In NC Market Area

|  | Coefficient | P-value |
| :---: | :---: | :---: |
| Regressand: \# of State of North Carolina subcontracts awarded 6/1/13-5/30/18 (Ordinal) |  |  |
| Firm owner has more than 20 years' experience | 0.8471 | 0.5670 |
| Firm has more than 10 employees | 0.4393 | 0.0899 |
| Firm owner has a baccalaureate degree | 0.9208 | 0.7962 |
| Firm gross revenue greater than 1.5 million | 0.6389 | 0.5282 |
| Firm Bonding limit greater than 1.5 million | 2.5009 | 0.0217 |
| Financing is a barrier for securing State of North Carolina projects | 0.9328 | 0.0806 |
| Firm is in the construction sector | 2.3715 | 0.2092 |
| Firm is qualified to do business with State of North Carolina | 0.8061 | 0.6649 |
| Firm is registered to do business with State of North Carolina | 0.8801 | 0.7675 |
| Firm is willing/able subcontractor for State of North Carolina | 3.2662 | 0.0354 |
| Firm is Black owned | 0.7937 | 0.0771 |
| Firm is Hispanic owned | 1.2697 | 0.7423 |
| Firm is Subcontinent Asian owned | 1.3528 | 0.7671 |
| Firm is Asian/Pacific Islander owned | 0.1380 | 0.0949 |
| Firm is American Indian owned | 0.5913 | 0.3434 |
| Firm is bi/multiracial owned | 0.8917 | 0.0032 |
| Firm is other race owned | 0.9482 | 0.0041 |
| Firm is Woman owned | 1.0772 | 0.7983 |
| Number of Observations | 265 |  |
| Pseudo $R^{2}$ | 0.0625 |  |

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Given the apparent heterogeneity across minority firm status in the number of prime contracts and subcontracts awarded in Tables 40-41, Tables 42-43 report Logit parameter estimates where the dependent variable is whether the firm "never" served since $6 / 1 / 13$ as a prime contractor or subcontractor for the State. The results in Table 42 suggest that relative to non-SMWDBEs, historically underutilized business enterprises are more likely to have never received a NC prime contract or subcontract, as the estimated odds ratio is greater than unity, and statistically significant in these instances. Disaggregating by race/ethnicity, the results in Table 43 suggest that Black-owed and Hispanic owned firms are more likely to have "never" been a prime contractor of subcontractor, as the estimated odds ratio is greater than unity and statistically significant in these instances. To the extent that success in public contracting is proportional to having prior prime contracts or subcontracts, the parameter estimates in Tables 42-43 suggest that for historically underutilized business enterprises, and firms owned by Black Americansand Hispanics, any contracting disparities between SMDBEs and non-SMWDBEs can be explained by their relative disadvantage in having secured prior prime contracts or subcontracts from the State of NC.

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## Table 42: Logit Parameter Estimates (Odds Ratio):

SMWDBE Status and Never Serving as Contractor/Subcontractor for NC
In NC Market Area

|  | Coefficient | P-value |
| :---: | :---: | :---: |
| Regressand: Served as neither contractor/subcontractor since 6/1/13 (Binary) |  |  |
| Firm owner has more than 20 years' experience | 0.5170 | 0.0392 |
| Firm has more than 10 employees | 0.4791 | 0.1053 |
| Firm owner has a baccalaureate degree | 1.3065 | 0.4029 |
| Firm gross revenue greater than 1.5 million | 0.8931 | 0.8790 |
| Firm Bonding limit greater than 1.5 million | 0.2760 | 0.1069 |
| Financing is a barrier for securing State of North Carolina projects | 2.1981 | 0.0845 |
| Firm is in the construction sector | 0.9814 | 0.0034 |
| Firm is qualified to do business with State of North Carolina | 1.3813 | 0.6697 |
| Firm is registered to do business with State of North Carolina | 1.4714 | 0.5046 |
| Firm is willing/able prime contractor for State of North Carolina | 1.0435 | 0.9323 |
| Firm is willing/able subcontractor for State of North Carolina | 0.0956 | 0.0002 |
| Firm is a certified minority business enterprise | 0.7041 | 0.5113 |
| Firm is a certified Woman enterprise | 0.8285 | 0.6929 |
| Firm is a certified disadvantaged business enterprise | 0.5804 | 0.3387 |
| Firm is a certified small business enterprise | 1.0081 | 0.9831 |
| Firm is a historically underutilized business enterprise | 1.2988 | 0.0528 |
| Number of Observations | 265 |  |
| Pseudo $R^{2}$ | 0.1531 |  |

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## State of North Carolina Department of Administration 2020 Disparity Study

## Table 43: Logit Parameter Estimates (Odds Ratio):

SMWDBE Status and Never Serving as Contractor/Subcontractor for NC
In NC Market Area

|  | Coefficient | P-value |
| :---: | :---: | :---: |
| Regressand: Served as neither contractor/subcontractor on contract since $6 / 1 / 13$ (Binary) |  |  |
| Firm owner has more than 20 years' experience | 0.5401 | 0.0555 |
| Firm has more than 10 employees | 0.5177 | 0.1403 |
| Firm owner has a baccalaureate degree | 1.2676 | 0.4812 |
| Firm gross revenue greater than 1.5 million | 0.8138 | 0.7946 |
| Firm Bonding limit greater than 1.5 million | 0.1694 | 0.0182 |
| Financing is a barrier for securing State of North Carolina projects | 2.5397 | 0.0488 |
| Firm is in the construction sector | 0.9629 | 0.0037 |
| Firm is qualified to do business with State of North Carolina | 1.4974 | 0.6114 |
| Firm is registered to do business with State of North Carolina | 1.3479 | 0.6360 |
| Firm is willing/able prime contractor for State of North Carolina | 1.3145 | 0.5902 |
| Firm is willing/able subcontractor for State of North Carolina | 0.0757 | 0.0001 |
| Firm is Black owned | 1.0281 | 0.0902 |
| Firm is Hispanic owned | 1.6654 | 0.0408 |
| Firm is Subcontinent Asian owned | 0.3771 | 0.3925 |
| Firm is Asian/Pacific Islander owned | 0.8931 | 0.0014 |
| Firm is American Indian owned | 0.9348 | 0.0027 |
| Firm is bi/multiracial owned | 0.8846 | 0.0073 |
| Firm is other race owned | 0.9742 | 0.0017 |
| Firm is Woman owned | 0.6590 | 0.2035 |
| Number of Observations | 265 |  |
| Pseudo $R^{2}$ | 0.1734 |  |

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I. SMWDBEs, Private Sector Contracting, and Perceived Discrimination in the NC Market Area

The low success of SMWDBEs relative to non-SMWDBEs in securing NC prime contracts and subcontracts could results from them facing discrimination both in securing private contracts that are important for building capacity to compete for state of NC public contracts/subcontracts. Tables 44-47 explore if SMWDBEs face discrimination in the private sector with respect to contract size, and if firms perceive they have been discriminated against in the private sector. Tables 44-45 report Ordinal Logit parameter estimates where the dependent variable is the size of the contract awarded from the private sector. Tables 46-47 report Logit parameter estimates where the binary dependent variable is whether the firm percieves it experienced discrimination in the private sector.

The parameter estimates in Table 44 suggest that relative to non-SMWDBEs, certified minority business enterprises and historically underutilized business enterprises receive lower-valued contracts in the private sector as the estimated odds ratio is less than unity and statistically significant in these instances. Disaggregating by race/ethnicity, the results in Table 45 suggest that relatvie to non-SMWDBEs, Black owned firms receive lower-valued contracts in the private sector as the estimated odds ratio is less than unity, and statistically significant in this instance. To the extent that success in securing large private sector contracts outside of the State builds capacity for success in securing state of NC public sector contracts, the parameter estimates in Tables 44-45 suggest that for historically underutilized business enterprises and Black owned firms, disparities between non-SMWDBEs and SMWDBEs can possibly be explained by disparities in receiving large private sector contracts outside of of the State.

To the extent that perceptions of discrimination correlate positively with actual discrimination in the private sector, the Logit parameter estimates in Table 46 suggest that relative to non-SMWDBEs, certified minority business enterprises, certified Woman enterprises, and certified Disadvantaged Business Enterprises experience discrimination in the private sector as the estimated odds ratio is less than unity and statistically significant in these instances.. When disaggregated by the race/ethnicity of firm owners, the parameter estimates in Table 47 suggest that relative to non-SMWDBEs, firms owned by Black Americans and American Indians experience discrimination, as the estimated odds ratio is less than unity and statistically significant in these instances. This suggests that, at least for certified minority business enterprises, certified Woman enterprises, certified Disadvantaged Business Enterprises, Black owned, and American Indian owned firms, if private sector contracting experience is positively correlated with public sector contracting success, State contracting disparities between them and non-SMWDBEs are at least in part explained by private sector discrimination that undermines their capacity to compete for public sector contracts.

## State of North Carolina Department of Administration 2020 Disparity Study

## Table 44: Ordinal Logit Parameter Estimates (Odds Ratio):

SMWDBE Status and Largest Contract Awarded
In NC Market Area

|  | Coefficient | P-value |
| :---: | :---: | :---: |
| Regressand: Largest single contract awarded since 6/1/13 (Ordinal) |  |  |
| Firm owner has more than 20 years' experience | 2.0092 | 0.0054 |
| Firm has more than 10 employees | 6.6258 | 0.0000 |
| Firm owner has a baccalaureate degree | 0.7738 | 0.2777 |
| Firm gross revenue greater than 1.5 million | 1.3639 | 0.5045 |
| Firm Bonding limit greater than 1.5 million | 3.2593 | 0.0002 |
| Financing is a barrier for securing State of North Carolina projects | 0.5653 | 0.0945 |
| Firm is in the construction sector | 2.0809 | 0.0059 |
| Firm is qualified to do business with State of North Carolina | 2.1771 | 0.1230 |
| Firm is registered to do business with State of North Carolina | 0.4152 | 0.0445 |
| Firm is willing/able prime contractor for State of North Carolina | 1.1957 | 0.5116 |
| Firm is willing/able subcontractor for State of North Carolina | 1.2025 | 0.7953 |
| Firm is a certified minority business enterprise | 0.5094 | 0.0190 |
| Firm is a certified Woman enterprise | 1.4603 | 0.2148 |
| Firm is a certified disadvantaged business enterprise | 1.5145 | 0.2397 |
| Firm is a certified small business enterprise | 1.1411 | 0.6389 |
| Firm is a historically underutilized business enterprise | 0.4931 | 0.0098 |
| Number of Observations | 265 |  |
| Pseudo $R^{2}$ | 0.1060 |  |

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## State of North Carolina Department of Administration 2020 Disparity Study

Table 45: Ordinal Logit Parameter Estimates (Odds Ratio):
SMWDBE Status and Largest Contract Awarded
In NC Market Area

|  | Coefficient | P-value |
| :---: | :---: | :---: |
| Regressand: Largest single contract awarded since 6/1/13 (Ordinal) |  |  |
| Firm owner has more than 20 years' experience | 1.7856 | 0.0229 |
| Firm has more than 10 employees | 6.3955 | 0.0000 |
| Firm owner has a baccalaureate degree | 0.8981 | 0.6510 |
| Firm gross revenue greater than 1.5 million | 1.4413 | 0.4555 |
| Firm Bonding limit greater than 1.5 million | 2.7649 | 0.0028 |
| Financing is a barrier for securing State of North Carolina projects | 0.5117 | 0.0594 |
| Firm is in the construction sector | 2.1059 | 0.0126 |
| Firm is qualified to do business with State of North Carolina | 1.5888 | 0.3387 |
| Firm is registered to do business with State of North Carolina | 0.5884 | 0.2026 |
| Firm is willing/able prime contractor for State of North Carolina | 1.1543 | 0.6272 |
| Firm is willing/able subcontractor for State of North Carolina | 1.1295 | 0.8758 |
| Firm is Black owned | 0.6358 | 0.0954 |
| Firm is Hispanic owned | 0.7357 | 0.5270 |
| Firm is Subcontinent Asian owned | 0.4810 | 0.7203 |
| Firm is Asian/Pacific Islander owned | 5.9160 | 0.0004 |
| Firm is American Indian owned | 0.8976 | 0.9019 |
| Firm is bi/multiracial owned | 1.2413 | 0.0000 |
| Firm is other race owned | 4.6016 | 0.0934 |
| Firm is Woman owned | 0.8145 | 0.4040 |
| Number of Observations | 265 |  |
| Pseudo $R^{2}$ | 0.1075 |  |

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## State of North Carolina Department of Administration 2020 Disparity Study

## Table 46: Logit Parameter Estimates (Odds Ratio):

SMWDBE Status and Private Sector Discrimination
In NC Market Area

|  | Coefficient | P-value |
| :---: | :---: | :---: |
| Regressand: Firm experienced private sector discrimination (Binary) |  |  |
| Firm owner has more than 20 years' experience | 0.5301 | 0.0689 |
| Firm has more than 10 employees | 0.7880 | 0.6006 |
| Firm owner has a baccalaureate degree | 1.0185 | 0.9590 |
| Firm gross revenue greater than 1.5 million | 0.3240 | 0.2885 |
| Firm Bonding limit greater than 1.5 million | 0.5985 | 0.6362 |
| Financing is a barrier for securing State of North Carolina projects | 2.1515 | 0.0735 |
| Firm is in the construction sector | 1.8899 | 0.2106 |
| Firm is qualified to do business with State of North Carolina | 1.0819 | 0.9270 |
| Firm is registered to do business with State of North Carolina | 0.9050 | 0.8929 |
| Firm is willing/able subcontractor for State of North Carolina | 1.9363 | 0.5497 |
| Firm is a certified minority business enterprise | 1.4529 | 0.0540 |
| Firm is a certified Woman enterprise | 1.0616 | 0.0936 |
| Firm is a certified disadvantaged business enterprise | 1.3210 | 0.0681 |
| Firm is a certified small business enterprise | 0.8439 | 0.7291 |
| Firm is a historically underutilized business enterprise | 0.9832 | 0.9690 |
| Number of Observations | 265 |  |
| Pseudo $R^{2}$ | 0.0825 |  |

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## State of North Carolina Department of Administration 2020 Disparity Study

Table 47: Logit Parameter Estimates (Odds Ratio):
SMWDBE Status and Private Sector Discrimination
In NC Market Area

|  | Coefficient | P-value |
| :---: | :---: | :---: |
| Regressand: Firm experienced private sector discrimination (Binary) |  |  |
| Firm owner has more than 20 years' experience | 0.6128 | 0.1712 |
| Firm has more than 10 employees | 0.8700 | 0.0736 |
| Firm owner has a baccalaureate degree | 1.0378 | 0.9185 |
| Firm gross revenue greater than 1.5 million | 0.3445 | 0.3522 |
| Firm Bonding limit greater than 1.5 million | 0.7014 | 0.7453 |
| Financing is a barrier for securing State of North Carolina projects | 1.9780 | 0.0244 |
| Firm is in the construction sector | 1.6264 | 0.3432 |
| Firm is qualified to do business with State of North Carolina | 0.9634 | 0.0658 |
| Firm is registered to do business with State of North Carolina | 0.9007 | 0.0858 |
| Firm is willing/able subcontractor for State of North Carolina | 1.5333 | 0.7002 |
| Firm is Black owned | 2.1752 | 0.0537 |
| Firm is Hispanic owned | 2.4232 | 0.1827 |
| Firm is Subcontinent Asian owned | 1.1870 | 0.8977 |
| Firm is Asian/Pacific Islander owned | 3.7466 | 0.2341 |
| Firm is American Indian owned | 3.0628 | 0.0879 |
| Firm is bi/multiracial owned | 0.9216 | 0.0000 |
| Firm is other race owned | 0.8637 | 0.0000 |
| Firm is Woman owned | 1.3779 | 0.3926 |
| Number of Observations | 265 |  |
| Pseudo $\mathrm{R}^{2}$ | 0.1036 |  |

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## J. SMWDBEs and Informal Public Contracting Networks in the NC Market Area

Similar to private sector discrimination, the existence of informal public contracting networks that have advantages in securing public contracts and subcontracts, and exclude SMWDBEs, could have an adverse effect on SMWDBEs ability to secure public contracts and subcontracts with the State. To explore the role of such informal networks, Tables 48-49 report Logit parameter estimates where the dependent variable is if the firm owner agrees that informal networks enable succes in public contracting with the State.

The Logit parameter estimates in Table 48 suggest that relative to non-SMWDBEs, historically underutilized business enterprises perceive that informal networks enabled contracting success with the State as the estimated odds ratio is greater than unity and statistically signifcant in this instance. When disaggregated by the race/ethnicity of firm owners, the parameter estimates in Table 49 suggest that relative to non-SMWDBEs, firms owned by Black Americans and Women perceive that informal networks enabled contracting success with the State as the estimated odds ratio is greater than unity and statistically signifcant in these instances. This suggests that, at least for historically underutilized business enterprises, and for firms owned by Black Americans and Women, State contracting disparities between them and nonSMWDBEs are potentially explained by their exclusion from State public contracting networks that reduces their ability to secure prime contracts and subcontracts.

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## Table 48: Logit Parameter Estimates (Odds Ratio): <br> SMWDBE Status and Informal Contracting Networks <br> In NC Market Area

|  | Coefficient | P-value |
| :--- | :---: | :---: |
| Regressand: There is an informal network that enables business <br> with State of North Carolina (Binary) |  |  |
| Firm owner has more than 20 years' experience | 0.5829 | $\mathbf{0 . 0 6 4 6}$ |
| Firm has more than 10 employees | 0.6815 | 0.2617 |
| Firm owner has a baccalaureate degree | 1.2822 | 0.4160 |
| Firm gross revenue greater than 1.5 million | 1.3834 | 0.5539 |
| Firm Bonding limit greater than 1.5 million | 5.3989 | $\mathbf{0 . 0 0 0 8}$ |
| Financing is a barrier for securing State of North Carolina <br> projects | 0.3967 | $\mathbf{0 . 0 9 9 3}$ |
| Firm is in the construction sector | 0.6559 | 0.5196 |
| Firm is qualified to do business with State of North Carolina | $\mathbf{0 . 0 8 3 8}$ |  |
| Firm is registered to do business with State of North Carolina | $\mathbf{4 . 5 8 1 5}$ | $\mathbf{0 . 0 6 6 6}$ |
| Firm is willing/able subcontractor for State of North Carolina | 3.0098 | $\mathbf{0 . 0 3 5 2}$ |
| Firm is a certified minority business enterprise | 1.0500 | 0.9098 |
| Firm is a certified Woman enterprise | 0.5661 | 0.2911 |
| Firm is a certified disadvantaged business enterprise | 0.7182 | 0.4064 |
| Firm is a certified small business enterprise | $\mathbf{0 . 0 8 1 8}$ |  |
| Firm is a historically underutilized business enterprise | 265 |  |
| Number of Observations | 0.1715 |  |
| Pseudo $R^{2}$ |  |  |

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## State of North Carolina Department of Administration 2020 Disparity Study

## Table 49: Logit Parameter Estimates (Odds Ratio):

SMWDBE Status and Informal Contracting Networks
In NC Market Area

|  | Coefficient | P-value |
| :---: | :---: | :---: |
| Regressand: There is an informal network that enables business with State of North Carolina |  |  |
| Firm owner has more than 20 years' experience | 0.7270 | 0.2691 |
| Firm has more than 10 employees | 0.7296 | 0.3397 |
| Firm owner has a baccalaureate degree | 1.0631 | 0.8416 |
| Firm gross revenue greater than 1.5 million | 1.3982 | 0.5416 |
| Firm Bonding limit greater than 1.5 million | 1.4955 | 0.4663 |
| Financing is a barrier for securing State of North Carolina projects | 5.4163 | 0.0012 |
| Firm is in the construction sector | 0.4097 | 0.0885 |
| Firm is qualified to do business with State of North Carolina | 0.8301 | 0.7806 |
| Firm is registered to do business with State of North Carolina | 2.0511 | 0.2495 |
| Firm is willing/able subcontractor for State of North Carolina | 5.4875 | 0.0321 |
| Firm is Black owned | 2.2923 | 0.0151 |
| Firm is Hispanic owned | 0.9769 | 0.9715 |
| Firm is Subcontinent Asian owned | 0.7711 | 0.7187 |
| Firm is Asian/Pacific Islander owned | 0.6671 | 0.7775 |
| Firm is American Indian owned | 2.3299 | 0.4274 |
| Firm is bi/multiracial owned | 0.9714 | 0.0000 |
| Firm is other race owned | 0.8637 | 0.0000 |
| Firm is Woman owned | 1.9761 | 0.0218 |
| Number of Observations | 265 |  |
| Pseudo $R^{2}$ | 0.1625 |  |

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## K. Conclusion

GSPC's analysis of disparities in public contracting and subcontracting outcomes in the State aimed to provide some policy relevant insight to observed unconditional disparity indexes. A descriptive private sector analysis of the NC Market Area private sector revealed that in general, being an SMWDBE in the NC 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 SMWDBEs in the NC Market Area are suggestive of private sector discimination that undermines their capacity to enter the market compete with non-SMWDBEs firms for public contracting and subcontracting opportunities. In this context, the regression results reported in Tables 48-49 provide specific detail on which particular SMWDBEs in the broad NC Market Area are potentially constrained by private sector discrimination that could translate into a diminished capacity to compete successfully for public contracts with the State. The parameters estimates from the GSPC sample suggest that certified minority business enterprises, certified Woman enterprises, certified Disadvantaged Business Enterprises, and firms owned by Black Americans and American Indians are particularly harmed by percieved private sector discrimination as the estimated odds ratio for the perception of being discrimated against in the private sector is statistically significant and greater than unity relative to firms owned by non-SMWDBEs.

Overall, the GSPC disparity analysis explicitly links a business firm's SMWDBE status to public contracting outcomes in the NC Market Area. Parameter estimates from categorical regression models suggest that with the exception of Black and asian/pacific islnder owned firms, SMWDBE status has no statistically significant effect on entering the NC Market Area as a new firm. Disaggregated race/ethnicity SMWDBE status does appear to have an adverse impact on securing public contracting and subcontracting opportunities with the State relative to non-SMWDBEs in general. We also find that in the NC Market Area , the credit capacity of certified small business enterprises, and firms owned by American Indians is constrained in private credit markets. This suggests that any State public contracting disparities between these type of SMWDBEs and non-SMWDBEs can potentially be explained by them facing credit market discrimination.

The results of the GSPC disparity analysis provide a framework to rationalize observed disparities in public contracting outcomes/success with the State NC between SMWDBEs and non-SMWDBEs in the NC Market Area. Our regression analysis suggests that any observed disparities in public contracting outcomes between SMWDBEs and non-SMWDBEs are not explained by differential capacities for public contracting success with NC. Our regression specifications control for firm public contracting capacity by including measures such as 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 NC, State registration status, and firm financial standing. This inclusion of these control covariates in our regression specifications permit an assessment of public contracting success/failure conditional on SMWDBE and non-SMWDBE public contracting capacity. The existence of public contracting success disparities between SMWDBEs and non-SMWDBEs-particularly when disaggregating by the racial/ethnic status of owners, even after controlling for capacity suggests that relative to non-SMWDBEs, SMWDBEs face barriers independent of their capacity-or their ability-in securing public contracts and subcontracts with the State.

## State of North Carolina Department of Administration 2020 Disparity Study

Perhaps most indicative of racial/ethnic disparities in public contracting outcomes in the State, our results reveal that the likelihood of SMWDBEs that are historically underutilized business enteprises, and owned by Black Americans and Hispanics never receiving a prime contract or subcontract was higher relative to non-SMWDBEs over the time period under consideration in our analysis. This suggests that SMWDBEs owned by Black Americans and Hispanics face barriers in securing prime contracts and subcontracts from the State. Coupled with our findings of perceived private sector discrimination and informal contracting network exclusion being higher for firm owners who are Black, our results are also consistent with disparities in securing prime contracts and subcontracts with the State being driven, at least in part, by private sector discrimination and public contracting network exclusion against SMWDBEs that undermines their ability to secure prime contracts and subcontracts.

## VII. ANECDOTAL EVIDENCE

## A. Introduction

The anecdotal evidence chapter of the Study presents the experiences and impressions from the North Carolina community in doing business or attempting to do business with and within the State of North Carolina. This chapter supports the overall findings of the Study through analysis of the viewpoints, experiences, perspectives, and beliefs of business owners and community organizations across North Carolina.

## B. Methodology

GSPC employed a wide range of qualitative collection methods to accomplish two goals. First, to provide any business owner or community member who desired to participate, a platform for engagement; and Second, by providing a multi-layered evidence gathering methodology to track frequently occurring views or responses. Ultimately, our research questions were to determine whether firms were currently doing business with the State and to gain insight to their experience or, if they were not doing business with the State, why not, and were there barriers that presented themselves to this engagement. This outreach began through five (5) statewide informational meetings to educate community members on the purpose and methods of the Study and how to be involved. The Study team also engaged stakeholders via four (4) public hearings, four (4) focus groups, meetings with over twenty local organizations, email commentary, and the Online Survey of Business Owners web survey. Because of the State-wide expanse of the potential audience, each engagement occurred in distinct geographic regions of the State of North Carolina. The informational meeting was also offered via webinar for interested attendees to access electronically from any location across the State. This webinar was stored and made available for streaming on the study website, northcarolinadisparitystudy.com.

For several pieces of the analysis, businesses were selected at random from across the State and invited to participate in hour interviews either in person or over the phone. Four separate groups of businesses were selected at random to participate in focus group discussions in Wilmington, NC; Lumberton, NC; Asheville, NC; and Raleigh, NC. These meetings were facilitated by members of the Study team. The four public hearings were held in Greenville, NC; Morrisville, NC; Greensboro, NC; and Morrisville, NC to engage area business, organizations, and community stakeholders on the record about their experiences. These hearings were widely advertised using social media, email blasts, press releases to statewide media, via the Study website and through coordination with local organizations. Email commentary was solicited throughout the duration of the study via the Study website and generated significant feedback. Also, the Study team contacted state vendors, bidders, firms via email to solicit their participation in a web survey seeking feedback on their experiences working with the State. The Survey was distributed to 8,0oo businesses and resulted in 208 respondents, providing both pertinent demographic metrics as well as a broad examination of central issues for business owners. Lastly, the Study team interviewed twenty-four (24) organizations from across the State to get the collective opinions of their respective constituents on doing business with
the State. The following sections detail the feedback GSPC received from these various methods of information-gathering, arranged by type of analysis and subject matter.

## C. Anecdotal Interviews

During the Study, the team conducted sixty (60) interviews with business owners from across the State of North Carolina sampling from databases of certified and registered vendors to compile a random sample. The collection of firms reflects varied demographics and work types, including nine Asian American owned firms, thirteen African American owned firms, six non-minority male owned firms, eleven non-minority women owned firms, ten Hispanic American owned firms, and ten American Indian owned firms. Business types represented industries from Health Care, Retail, Maintenance, Engineering, Construction, Design, Security, Information Technology and Communication, and several identified as small businesses. The interviews touched on various topics related to doing business with the State and within the broader North Carolina and regional marketplace, the following narrative outlines themes derived from recurring responses.

## 1. Certification Fraud and Prime Contractor Oversight

Several firms identified loopholes in the bid or compliance process that permitted firms owned by groups or individuals unqualified for the Historically Underutilized Business ("HUB") certification - often prime contractors - to either exploit the rules to win bids. This was accomplished through advantageous relationships or the use of sham-businesses to enabled certification intended only for disadvantaged businesses. In many cases, the business owner openly admitted to us in interviews of taking advantage of these loopholes.

AI-38 is of Cuban descent but says "I don't like to label myself." Still, after owning and operating his apparel business for nearly a dozen years, he acknowledged that in 2016, "I put the whole thing in my wife's name." The business is certified with the State as an MWBE, and has contracted with, among other private organizations, schools in the area. An African American flooring company owner, AI-48, complained that too many people are eligible for set-asides designed for minority and disadvantaged firms. "The word 'minority' is now used so broadly, it's now difficult to get contracting work" as a subcontractor, he said.

The African American woman who is majority owner of AI-54 said she was often sent to apply for certifications when she worked for other non-minority companies. She said this practice goes mostly overlooked by the State. "They don't do enough scrutinizing of who's running the companies that they're calling 'minorities,"' she said. "I've been presented many times as being a paper pusher for some of your biggest firms." Hispanic interior design firm owner AI-30 echoed the same need for more oversight. "Large businesses should be verified regarding their minority status," she said. "Many find loopholes in the system to win bids."

AI-49, a Caucasian woman who owns a software firm, said the practice of putting a business in a wife's name to qualify for Female owned Business certification is so common that women business organization officials were surprised to learn that she was legitimately a woman. "'Oh, you're a real woman owned business," she said she was told by the official, after visiting her offices. "Most people have the business in their wife's name, and the State doesn't do anything about it, and they take advantage of being a minority." In this study, three of the eleven Caucasian women owned businesses reflect a 51 percent Woman ownership. AI-38 gave his wife $100 \%$ ownership of his company.

Several subcontracting organizations also accused prime contractors of hiring the smaller businesses simply to meet bid requirements for work in HUB zones. AI-48 said he was part of a winning bid package in Durham. However, upon being awarded the bid, he said the prime contractor "never called me back."

Hispanic interior design firm owner AI-30 said prime contractors saddled her with unreasonable requirements after winning the bid to meet the provisions of the bid. "They take on women partners just to win the bid," she said. "Then they start asking for certain criteria ... large insurance policies or things that a small company like mine can't afford," to get her off the project. One business owner, Hispanic cleaning service business AI-29, even suggested that prime contractors sought out HUB or other disadvantaged certification holders who might be desperate for work so that they could save money overall on the project. "These companies that they search to meet that quota ... they are looking to pay less than they would for a company that is not certified," she said. "That was a little disappointing to find out."

## 2. Informal Networks

Several firms complained about being excluded from participation in the State's and other public sector bidding processes because of informal networks of business owners and government officials who act as gatekeepers to contract jobs and have influence over bidding decisions. AI-36 accused the "good ole boy" network (a common colloquial describing this informal network) of keeping her Architecture firm out of contracts in Raleigh. "With some developers, it's a good ole boy network in breaking into the area," she said. "Being a female, I'm left on the outside looking in."

AI-48, owner of a flooring company, said a materials sales representative explicitly told him that he would be excluded because he was "not in with the good ole boys." He said the representative then dictated a price that AI-48 was to bid - one that would cause him to lose money - in order to win the contract. He believes this perspective is pervasive in North Carolina and impacts everything from the bid process to business finance. "The Good Ole Boys are the banks and the Prime Contractors," he said. AI-47, an African American Woman trucking and shipping business owner, called North Carolina the "Good Ole Boy" State, and said State officials do not police bad behavior, "prime contractors can shut down small subcontractor companies by not paying but can still go back and win a bid after doing that," she said.

AI-53 is a health care provider offering mental health services to managed care organizations in the State. The African American owner said although he has a contract with MCO's, every time he calls about adding services, "they say, 'the network is closed,' and you're never invited in. But they keep creating pilot programs and other opportunities for other providers." American Indian construction subcontractor AI-9 said he believes the State "prefers to work with larger companies that they're familiar with, leaving no opportunities for smaller companies to even try." AI-58, an Asian owned trucking company, says his perception of this network discouraged from bidding on contracts with the State, "bidding with some companies is a waste of time because they already have their choices handpicked," he said.

While several diverse firms complained about their exclusion from this network. One American Indian construction firm acknowledged benefitting from an informal network. AI-2 reports having a relationship with someone working for an agency in the State and was able to get work because of that connection. "I knew someone who worked there, and as a result had an 'in' on contract work," he said. "Knowing someone personally seems to be the best way to get work with the State."

## 3. Benefits of HUB Certification

About half of the firms interviewed said they found substantial benefit from HUB and other certifications. While about half called the certification process "slow" or "tedious" there were others who expressed no problem with obtaining certifications.
"The certification process was straightforward," said American Indian chemical distributor AI-5. AI-39 represents an environmental monitoring business that qualified for MWBE certification before the Woman member of his ownership group left the company. Now the company must amend its certifications. Still, the representative said "the certification process was easy" for the now-Caucasian Male owned company.

The benefits for having certification were called into question by many in the Study.
"I (am not) jumping through those hoops," said AI-34, a Caucasian male whose business provides professional land management. "Not unless I see where it's going to give me a benefit. And I haven't seen that with the State." AI-5 noted that certification has yet to give his business "a leg up over the competition."

African American owned landscaper AI-19 also was not satisfied with the DBE certification for his company. "Certification has not been helpful," he said. "It's lots of work and can be intimidating." Professional services franchisees AI-57, an African American husband and wife team, also were displeased with their MWBE and HUB certifications, calling the process "Long, intense, and tedious, but not helpful."

Others, however, found that the process benefitted them.
"The certification was helpful, and the process was easy to navigate," said Asian IT provider AI-25, who has HUB, National Minority Supplier Development Council and Carolina Virginia Minority Supplier Development Council certifications. AI-9, AI-20, AI-49, AI-14, and AI-37 are also HUB certified businesses. "It has given me opportunities that would have been harder to make otherwise," said AI-9.

AI-14, an Asian woman engineering service provider, said she was identified and chosen by prime contractors because of her certification. Although AI- 15 has not directly benefited from HUB certification, the Asian Male IT provider is aware of other companies that have.

Still, there are some firms that either chose not to re-certify after initially gaining certification, skipped certification altogether, or were unsure whether their respective companies were certified at all. "We're uncertain if we're HUB certified," said Hispanic owned siding company AI-55.

## 4. Accounts of Discrimination

Discrimination was acknowledged in several forms by interviewees, and throughout the State across both the public and private sectors. However, the type of discrimination experienced seemed to differ based upon the background of the individual making the complaint. While African American, Asian, and Hispanic interviewees were most likely to identify racial discrimination, some American Indian interviewees noted bias against perceptions of their rural origins. Also, some individuals perceived discrimination based on not being native to the State or the region where their respective businesses were located, or because they worked for small firms.

AI-10, an American Indian business owner, said he was turned away by retailers he attempted to do business with because of the color of his skin. When his Non-MWBE lead salesman went to the same stores, however, "he was able to close deals where I couldn't." African American business owner AI-54 experienced similar circumstances because she was a minority woman. "I had to get someone to help because I was hitting brick walls," she said. She partnered with a Non-MWBE man, who said that "there were barriers to her getting with the right people until (I) started with the company." AI-54 identified other forms of discrimination. "I was told I wouldn't be in business for more than six months," she said. "I was denied a line of credit." Prime contractors wanted to use her as a minority to win bids but would not give her any work.

Some firms pointed to the bottom line when describing discrimination. AI-47 said discrimination is "everywhere." "The percentage offered to minorities is ridiculous when (prime) contractors and companies are getting 85 to 90 percent," AI-47 said. AI-45 is an African American businessman in publishing. He said
prime contractors do not solicit minority participation in good faith. "Minority contractors waste their time submitting bids, and the prime contractor does not intend to award them a bid whether they have a competitive price or not," he said.

African American HVAC technician, AI-52, said that as a Black man, he has a difficult time searching work and for workers. "I find myself having to explain myself to people letting them know that I am qualified to do the job," he said. "If I'm out in the field, some people accept me better if I'm out there working with the guys rather than as the owner."

Rural communities and metro area suburbs seemed to be subject to more racial discrimination, some interviewees pointed out. "There is a lot of discrimination in Cary (a suburb of Raleigh)," janitorial service owner AI-51, an African American, said. "We put in a bid with NCCU and waited a year and a half. But no response and no contract." Several interview subjects pointed to Wilmington as a hotbed of racial discrimination. "Wilmington has historically been hostile to Black Americans," AI-45 said. "Some of those attitudes still persist."

Several Study subjects said they felt excluded from participation in the contracting environment because they were from outside of North Carolina's urban markets. AI-4 and AI-6, both American Indian owned companies, believe this impacted their business. "I get shot down every time I try to do business with the State," AI-6 said. He said there is discrimination because of his base of origin and operation in rural Robeson County, and "the perception of being 'country." "Companies from Raleigh who do the exact same thing as us or have the same quality of work were chosen to do local work." AI-4, an electrical contracting company, said that because she has been stereotyped as "country," state decisionmakers sometimes "believe we cannot do the work."

AI-30, AI-9, and AI-51 all feel that small firms are systematically excluded from the process. "Work doesn't seem to be intended for small businesses," said AI-51. AI-30 feels the "NCDOA only focuses on working with larger firms. They go to larger firms, and the larger firms decide who gets to do the work." Previously, AI-9 was recorded stating that the State prefers larger companies. He said he did not believe there are "enough opportunities for smaller businesses to build upon in order to gain greater capacity."

AI-36 states she believes there is a bias toward local or home-grown businesses. "Some places in the State are prone to wanting to hire local talent," the Woman owned architectural firm owner said.

There are, however, some outliers to the concerns about discrimination. AI-15, an Asian owned IT services provider sees lots of opportunity for small businesses in North Carolina and believes that "the government seems to encourage small businesses in the State." State officials at the Capital in Raleigh seem to have an agenda to help disadvantaged businesses, AI-47 said, despite her strong stance that North Carolina breeds discrimination among its hiring class. "Raleigh wants to give (jobs) to minorities," she said.

## 5. Barriers to Small Businesses

The barriers to doing business with NCDOA aligned primarily with process and economic factors. Process refers to both the steps required for bidding and for certification. Economic factors include timely pay, materials and supply costs and business capital. But the gateway to participation revolve around one of the chief criteria the State purports to use to identify and award contracts: price.
"There is a 'low bid prevails' mentality that is pervasive in government, said Woman business owner AI-37. AI- 5 also stated that price was key to winning work. "The State primarily desires lowest bidder for services ... which prices me out of the market," he said. Like many smaller businesses, AI-5 and AI-37 cannot afford to bid too low, lest they lose money. And price can be used as a blunt object by cash-flush prime or general contractors - particularly those with a mean streak or discriminatory tendencies - to push a small or disadvantaged firm out of the bidding. Pricing was the first step AI-19 said was used to exclude him from competing for a contract. "I made two bids with the State that I knew were the lowest, and was certified and prequalified," the African American landscaper said. "But I still got overlooked. I received no reason from the State why I was overlooked and the Stated ceased communication."

Since these companies are in business to make money, AI-46 recommends a change to the requirements the States use to select bids. "You don't want to lose all your money just to get the contract," he said. Or as AI-38 admonishes, you do not want to be working a contract "just to pay overhead" because prices are so low.

Other recommendations made to combat the lowest bid problem include bundling subcontractors together on jobs to maximize each one's potential for maximizing dollars, or following AI-37's suggestion: "NCDOA should prequalify contractors rather than seek the lowest bid, because the lowest price isn't always the best service."

Several companies complained about the pace of receiving pay from State contracts. "Prime contractors are the barriers to doing business, not the NCDOA," AI-47 said. "Primes are not paying contractors, and when they do, it's late." AI-8 voiced a similar concern about receiving pay: "It takes forever."

Materials costs can be prohibitively expensive, as well, as AI-48 states. "Sales reps dictate the price of the materials, which means you have lost the bid before you even bid."

Numerous interviewees described both the bidding and certification processes as difficult, lengthy and outdated. AI-2, an American Indian construction and renovation contractor said the bidding process should be digitized. "There are technicalities that can make you lose out on an opportunity when it comes to bidding paperwork," he said.

AI-22 and AI-30 said they received communications from NCDOA on a regular basis with contract opportunities. However, both described the opportunities made available as "irrelevant" to their respective lines of business.

## 6. Outreach

Several interviewees offered positive reflections on things NCDOA did to keep the lines of communication open before and during the bidding processes. There were very few complaints about the way procurement information was distributed to prospective and/or returning bidders. AI-11 and AI-46 both complimented State officials on responding to questions and concerns. "They can communicate for all your needs," AI-46 said. "If you have a question and they don't have the answer at the time, they will get back to you."

## D. Public Hearings

GSPC held four public hearings in Greensboro, Raleigh-Durham (Morrisville), Charlotte, and Greenville, North Carolina communities. These events were open to the public, and using email blasts, press releases and coordinated outreach through the HUB office and other stakeholders, GSPC confirmed 211 prospective attendees. On September 30, 2019, 17 people attended the public hearing in Greensboro. There were 24 participants at the public hearing in Morrisville on October 1, 2019. The third public hearing on October 2, 2019, in Charlotte was attended by 14. The Greenville, North Carolina public hearing on (date) had 1 attendee who declined to provide input. At all four hearings, a representative of GSPC introduced the Study and outlined the purpose of the meeting before opening the floor for attendees to participate. Because a transcript was produced, each participant who spoke was asked to state his or her name for the record. At each meeting, the Study team listed to a collection of business advocacy organizations and businesses who offered specific opinions and ideas about NCDOA's programming and barriers to participation, and ways to improve both.

In Greensboro, PH-20, a truck driver, told attendees that coding for solicitations may be skewed because North Carolina industrial codes do not conform to the national coding system that every other state is using. "One of the things that limits our ability to compete is the way our cities and state enter their industrial codes," he said. "The State of North Carolina made up their own." PH-20 said the codes align with categories for lines of business, like his solicitations align to dump trucks and hauling. "The problem is when contracts get sent out, and I call them and say, 'I don't do that.' In the bidding system, that is counted as 'no contact' because the numbers do not match up." That means that general contractors tasked with reaching out to disadvantaged firms to satisfy bid requirements can say that they tried to find qualified small, women owned, or minority owned businesses, but were unsuccessful. This, he says, needs to be fixed.

PH-4, a mental health care provider in Charlotte, said he tried unsuccessfully to bid for government contracts when he was working in a different industry. "I'm running into the same issues as far as contracting with government agencies," he said, suggesting that he is not being treated fairly. "We have to live down those past stereotypes about minority businesses. I don't even think businesses like mine are even
given a fair chance when doing business with the State because all the business is going to the larger company."

Like PH-20, PH-6 offered his experience from working with the bidding process to those in attendance and said that some bidding issues that work against disadvantaged businesses may not directly be the result of malfeasance. "I just looked (at) an RFP for one of the largest cities in the Triangle, and the way it was designed was going to work against minority owned businesses," the insurance professional said. "I don't think it was their intention to do that because the person that was in charge of assigning the contract was a minority, himself."

PH-12 has asked that the State and area business organizations sponsor informational forums and conferences. The automotive business owner surmised - and eventually learned - that there were tips that he was overlooking that kept him from winning bids. "Going to these conferences and just talking to people, you learn the ins and outs of how to do business ... the things that aren't on the Web site," he said. He cited one example of how pre-qualification requires you to have had three contract jobs in the past five years. "If you're new, you don't have that. But I learned that I can hire an experienced person if I am a business owner who doesn't have the required experience."

PH-5 recently became a U.S. citizen, and also obtained her general contracting license. The Mexican native runs a construction business with her husband and complained that despite having her license, she still is not getting any work. "What was the purpose of getting my general contractor license when I can't get any contracts?" she asked. "The people who are getting the jobs don't even live here. Ninety percent of the people in the field of construction getting the jobs are Hispanic, and only 10 percent may be legal. I do everything the legal way and it's not helping me one bit."

PH-9 works with small businesses for a municipality and encouraged more people to show up to events like the public hearings and informational forums. "Keep coming to events like this," she said. She spoke about a contractor who had recently come to her for help, "like many, he had not gotten paid," she said. "I used the opportunity to teach him what he should have done. First of all, he did a 'gentleman's contract' - a handshake. Don't do that. Get everything on paper."

A construction and construction logistics professional raised questions about unsuccessful bid attempts during a hearing. "I've looked at bids in the aftermath and saw that there was disparity and a low number of minority participants actually involved with the bid," PH-16 said. "How do you, if you've never done this before, bridge the gap between not having done it and having done it?"

PH-18 described having to spend several days in Raleigh after records of her HUB certification went missing. "It's been really challenging getting the certifications to show up in different places," she said. "I
took off in January and I had to come down here numerous times where I filed different forms and it wasn't on file with the State. And I had to pay again and had to get it done. I still had to work full-time and I'm taking off to get this done to reposition my business."

## E. Focus Groups

GSPC held four focus groups on October 1st through October 3rd, 2019 in Wilmington, Lumberton, Asheville and Charlotte with selected potential participants from a random group of vendors across the State of North Carolina. The purpose of the focus groups was to allow a semi-anonymous dialogue between business owners of varying backgrounds. GSPC facilitated small these small group meetings.

African American construction business owner FG-5 believes African Americans have a larger problem submitting documentation for bidding, but the State tends to focus on "benefitting the numbers" by certifying the firms but not using them. He recommended an oversight committee because African American firms are not getting contracts with the school systems.

FG-2, an American Indian, has done significant business with NCDOT, the Office of Civil Rights and the HUB office and often runs into state personnel with what he calls "lackadaisical" attitudes. The staffing professional noted that working with DOT and OCR moves at a "snail's pace." He has recently done work with the State colleges and universities and said bid submission and processing has gotten "more intense." There is a large American Indian population in the Lumberton area, however the tribal communities are sorely underrepresented by both DOT and OCR. "they need to look at their hiring practices, because Native people don't even work there," he said. He said he spent a year working on a training program for DOT, however he said, "they are entrenched in the way they do business." Also, he said construction has come a long way although there are still some monopolies among the larger firms. He said some of the bid processes are not electronic.

FG-7 believes the State's eProcurement system helps businesses like his target their market. The African American general contractor said it is helpful to have personal relationships and another general contractor who introduced him to the right people to land a major Wilmington project. It is only natural for general contracting firms to work together, he said. Although his connection could not help him land another major project, having that first one on his resume, showing his versatility, can help him win another one. "You have to sell your own project," FG-7 said. "You have to offer several services to get in the door." Unfortunately, he believes local agencies like UNCW are not willing to "take the risk" on new firms. They prefer to keep working with known commodities. FG-7 said relationships can benefit you if you can demonstrate their economic value, or demonstrate "what do you bring to the table?" He says he has never been turned down when he can show how he is adding value. FG-7 recommends that the State offer workshops on bidding and certification.

Hispanic security business owner FG-11 said she does not need work from governments and has chosen to not engage in public procurement. "I don't need the State's work," the 22-year business owner said. She attributed her selective attitude to a lesson she learned bidding unsuccessfully on government work some years ago. "When we have made a bid, it's usually to a contractor," she said. "So, you're a (subcontractor) to a company that would be based out of state and that's tricky." On one occasion, she said she attended the bid award announcement and a gentleman told her, "don't do it anymore, because if you're not giving a kickback, forget it." She then pointed to the recent arrest of an out-of-state businessman charged with bribing area officials for contract work. "I don't like to use the word 'kickback,' but it's reality," she said. "We still are selective in our jobs. We have enough jobs." She has done work rewiring many of the buildings in Asheville to accommodate security systems. "We built a reputation where I get phone calls from all over the area."

An aspiring bakery owner, FG-4 said her business has not been able to formally do business with government because of policies requiring her to have a professional kitchen. She started her business after health issues sidelined her from her previous profession. She noticed, however, that while she was unable to open shop, bake companies from out of state were able to sell the same products without meeting the same requirements. She was told that those companies likely were "grandfathered" into the marketplace. She is also a single mother of two autistic children and says her circumstances made it difficult to raise start-up capital. The SBA encouraged her to partner with another company who could distribute and market her product as their own but she was hesitant to make this arrangement. To date she has been unable to complete her HUB certification and she has not been able to attend training classes for her business because of time she needed to devote to her children.

FG-10 worked with the State through several ventures she and her husband have led together. The NonMWBE co-owner of the building glass service company admitted that while she is named as one of the owners, her spouse operates the business, admitting openly that she has no prior business experience. This has been the arrangement in past businesses, she said and this current company was purchased two years ago, allowing them name recognition and access to some of the prior business relationships, such as the Port of Wilmington, NCDOT and the University system. UNC-Wilmington is currently one of their biggest clients. The company always had a good reputation, she said. But they have added their certification through the State, which has increased their ability to get work. As a result, the company now does a lot more work through general contractors, and have been able to grow their staff from five employees to 25. FG-10 attributes their growth to word of mouth and said they have not experienced any discrimination.

FG-1 has done business with the State and says that larger companies and general contractors have an unfair advantage in winning jobs. Owner of an American Indian owned investment firm, he believes that large contractors can just walk into contracts without necessarily being the best option, and "the State turns a blind eye to it." Originally from New Jersey, FG-1 notes that there is a clear difference in the culture in New Jersey versus that in North Carolina. In New Jersey, state officials "constantly remind agencies that they must do business with diverse companies. "But here, they don't do that." He complains that large companies based out of state take opportunities from local businesses and was told to just subcontract with those businesses. "If you ask me that, you're telling me you know that they can't service the bid, but they're going

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to win it anyway," he said. He said the State does not track companies unable to complete or successfully perform on previous contracts and offers no enforcement when that company comes back up for another bid. "It's like a bad kid. If you never discipline the kid, how can you be shocked if he has bad behavior?" He said he wins more contracts bidding across state lines in South Carolina than he does in North Carolina.

As overall takeaways, the Wilmington focus group attendees spoke at length about their difficulty identifying contract opportunities. Local agencies and universities are supposed to upload contract solicitations though the State's online platform, but attendees spoke at length about how agencies avoid soliciting through this system, reducing the transparency of the bid process.

In both Lumberton and Wilmington, there was also discussion concerning transitioning HUB coordinators at state institutions. In Lumberton, they reported having a local HUB coordinator, but upon him leaving, the role, to the best of their knowledge, was never re-filled. Similar stories were reported in Wilmington, where several participants recommended a local business owner as the best conduit to identifying HUB opportunities in lieu of being unsure who their HUB coordinator was.

## F. Organizational Meetings

GSPC contacted community and business organizations to conduct interviews with several that represent small and diverse businesses. Representatives from each organization were interviewed with the goal of attaining insight on the overall perspectives the business community has about working with the State, and in general, in the North Carolina marketplace. Reported experiences with the State and other state agencies varied among the 21 organizations with differing levels of success as the result. The list of organizations interviewed is attached as Appendix I.

ORG-10 stated that, overall, North Carolina was successful at promoting itself as a good place to do business. However, minority owned businesses did not do so well. "Business is booming, but not for minorities and people of color. There are so many issues before us and it seems the majority is trying to hold us back." A chapter president of the same organization from a different city, identified as ORG-5, highlighted results from a previous disparity study to indicate the deficit in successful Black owned business in his part of the State. "Black people represent forty (40) percent of the population here, but only two (2) percent of the City contracts," he said. The head of the Black Chamber of Commerce in another North Carolina city pointed to a slightly smaller gap between population and contract participation ... but a gap, nonetheless. "Fifteen (15) percent of the minorities are winning bids," she said. "The minority population here is thirty-six (36) percent," ORG-9 said. One city reversed this trend with a successful example of local government going above the call to combat disparity. The executive director of an industry organization ORG-12 said a baseball stadium project required thirty-five (35) percent of the participating firms to be small and/or diverse, but "the project exceeded the goal by having an extra eighteen (18) percent of the business go to minority companies."

As the organizations reflected upon just how much of a priority the State government places on diversity and inclusion, a picture came into view from where, within government, the attention was coming. "It's a priority for the governor," says ORG-16, executive director of a local nonprofit development fund. Community organization leader, ORG-2, echoed that sentiment, also pinpointing where more work was needed. "The governor has been open to diversity and inclusion," she said, "but (we) need more work in the legislature."

A plethora of concerns were voiced echoing the feedback each of the organization leaders heard from their constituents. Chief among those concerns was the need for start-up or expansion capital, as identified by ORG-8, ORG-12, ORG-1, ORG-13, and ORG-9. "Having access to capital affects small and minority businesses being able to expand," ORG-13 said. Five of the organizations interviewed provide services to address this issue. Statewide business organization ORG-1 aids with "the ability to raise capital - both debt and equity - and with putting together money to go after a big contract." Another identified barrier to growth is bonding and bonding requirements, as recognized by ORG-3, ORG-8, and ORG-13. "Bonding is harder for minorities to acquire," ORG-3 said without providing a specific reason.

The existence of racism as a pervasive barrier to gaining work from state contracts stands out among comments from the various organizations. Organization heads identified loopholes being shared between non-minority firms and state agencies to sidestep regulations for bidding on contracts. ORG-9 said unfair treatment of Black owned businesses bidding on a project takes advantage of the common "lowest bid" requirement. According to ORG-9, if a business come in with a good rate, "the ones that are awarded are non-minority ... they come in so low that everyone knows they can't cover expenses for doing the job. What we've found from public records is that company, once in, gets to re-do the contract with the State." ORG11 points to another workaround for standard bidding practices. "When there is a $\$ 300,000-$ plus contract, it has to go out for (formal) bid," he said. "They get around that by giving out a $\$ 299,000$ contract, so we are still cut off."

More than sounding boards, these organizations offer help to businesses and business stakeholders (communities, groups, or individuals). Because they often address the issues of their respective constituents, these organizations - and, in particular, their leaders - they are in position to provide guidance and recommendations. One of the popular recommendations that organization leaders are making to State officials is teaming companies; that is, grouping companies with similar or complementary lines of business onto one contract. "Larger contracts are too much for small firms to go after," ORG-13 said. On the contrary, ORG-9 believes breaking apart large contracts would provide more opportunity. "Take a $\$ 1$ million contract and make ten contracts worth \$100,000 each." (ORG-9)

Several organizations recommended that North Carolina mimic the practices of federal agencies, other states and many cities in the State by actually codifying and enforcing a minimum percentage of dollars per state project to be spent on disadvantaged businesses. "I give the State a 'D' in this area," said ORG-14. "There is no commitment to meet a target." ORG-6 said laws need to change. "Coming out of this Disparity Study they need to have small and minority business goals for all contracts." Another suggestion being offered by organizations is that state officials make way for the demographic change that is quickly coming
to North Carolina. "Black and brown people are the fastest growing populations in our state," business organization executive director ORG-16 said. "Make it an economic opportunity. Put more money on the table for Black and brown people."

## G. Email Comments

For the duration of the Study, business people active in or who desired to be active in the marketplace were encouraged to engage and provide comments via the email address NCStudy@gspclaw.com, which is monitored by the Study team. While much of the commentary received by GSPC addresses NCDOA programs and doing business with the State, some of the responses referred to the Study itself.

Ironically, and most pertinently, GSPC received a series of email comments from a local contractor who he believed was being actively discriminated against by the City of Winston Salem. The American Indian insurance broker stated that he contacted the State HUB office regarding the issue, but they did not directly intervene and instead referred him to the Study team. He demonstrated through the series of email how he was actively being prevented from pursuing a solicitation with the City of Winston Salem. He first complained that the bid was unfairly, providing clear preference to the incumbent contractor. Subsequently, despite having HUB participation goals in the solicitation, he says the contractor notified him that they did not have to consider his bid as a subcontractor and "could get their HUB participation by hiring a janitor" instead. After raising this concern of discrimination and alerting the Study team and other state personnel who intervened, GSPC received notice that the solicitation in question was cancelled by the City.

Regarding the Study, EC-22 expressed eagerness to see the results despite her disappointment with failed attempts to contract with the State. "I have lost faith in the system," she said. "Your input would be welcome in the coming days."

Speaking to an earlier finding regarding loopholes in Hub certification, EC-2 pointed to a rule that prevented his firm from being HUB certified. "I wanted to point out that my wife and I own our firm but cannot be certified as HUB firm (woman owned)," EC-2 said. North Carolina Board of Architecture rules require that the majority Owner be licensed to practice architecture, and my Partner/Wife is not licensed. This even though we maintain, operate, and work together full time."

EC-17 was excited to learn about the Study and offered to help any way she could. She has been engaged at the local level by "diving into procurement policies in Durham through volunteer advocacy work at the People's Alliance." Referring to the City and County of Durham (NC) most recent disparity study, she notes that "Durham's last disparity study confirmed a need for 'race and gender conscious remedies' and while progress seems to have been made, there is little transparency, accountability and shared knowledge about what best supports businesses owned by People of Color in the city."

Late pay for contract work spurred EC-7's email. As she sought information about a working capital grant, she pointed out that she often gets paid months after services are completed. "At this time, we are owed about $\$ 7,000$ from a project that was completed in August," she said. "As you may know, it takes working capital to keep us insured, to pay staff, and to cover daily expenses of the company until payment is received."

EC-16 questioned who was benefitting from this Study in her criticism of HUB. "My experience has led me to ask, 'Who are you helping?' Lots of money and time going into HUB, but still '(Good) Ole Boys' and their families are getting the money."

EC-4 challenges the women owned label held by that some companies now contracting with the State while she struggles to land contracts. "We have to fight to get the work, fight to participate on the jobs, then fight to get paid.," she said. "We also have the women's names on the businesses who have nothing to do with the business while their husbands run the show and have all the assets."

EC-14 wrote to express her concern about the vagueness of the definition for the phrase "Good Faith Effort" (GFE). She states her opinion that "unless and until the term is defined and used consistently, the results that GFE will be widely defined and will result in widely different results," she said. Continuing, she states:
"If and when minority goals are agreed upon and issued, GFE outcomes, as a result of the various definitions of GFE, agencies and others can 'check the boxes', yet oftentimes gain little for the emerging contractor. As I define it, the 'spirit' of GFE is to 'level' the field. increase capacity and capabilities; and strengthen prime contractors and owner's abilities to have access to talented subcontractors and afford opportunities to emerging contractors."

The Study's omission of Disabled owned Business Enterprise and distinct categories for Minority Women is the source of the email from EC-18. "Needless to say, I am beyond disappointed that 1. Minority Women, by Ethnicity, will not be counted separately from the Men and 2. Disabled-Owned Business Enterprises will once again not be counted (but, they have their own Business Certification Classification). These are two segments of the population who are underserved and yet we're not being counted. How are we to fix the real disparities that exist, if the government isn't interested in counting us?"

EC-19 raises more questions about Disabled owned businesses. "How do disabled persons qualify for DBE? What needs to be changed, and how to should I proceed to influence change? The DBE presumption of disadvantage is based off the Civil Rights Act (CRA) of 1964 based on race and gender. Subsequently the American Disabilities Act (ADA) was established in 1990 as a mirror of the '64 CRA addressing discrimination based on disability. The proof of discrimination for disabled persons is excessive, to the point that it is almost unattainable and shouldn't be a requirement."

## H. Conclusion

Study participants from across a variety of forums referred to unfair advantages provided to larger general contractors in the bidding process. It was noted how these issues undermine diversity initiatives by using administrative loopholes and a lack of oversight to limit the benefits programs designed to encourage inclusion. Overall, participants are concerned about a lack of accountability in the procurement process, despite a belief that Governor Roy Cooper earnestly wants to champion diversity and inclusion.

Small business owners complained often about an environment of haves and have-nots that relegated companies lacking political connections, substantial capital or a certain heritage to the periphery of public contracting or accept nothing at all. Criteria for bid selection is seen as an inconsistent standard, and firms who can afford to underbid and later renegotiate contract terms have exploited the lowest bid requirements. Firms complain that this selection process diminishes opportunity for smaller businesses already struggling with limited resources and capital. Based upon assertions from the field of participants, there appear to be no checks and balances over the systems governing contract bidding and contracting with the State.

Discrimination was reportedly both implicitly and explicitly in sentiment against business owners of color. Several businesses than complained of losing a bid to a company with no discernable difference in qualification other than the color of the winning business owner's skin. Testimony was also given regarding everything from price rigging to certification fraud.

While small and diverse companies praised agencies like the State HUB Office and the NCDOT Office of Civil Rights, these resources cannot be optimally effective without the necessary administrative oversight. More action must be taken to apply transparency to the bidding process to ensure that everyone has a fair opportunity to do business with the State of North Carolina.

## State of North Carolina Department of Administration 2020 Disparity Study

## VIII. CLOSING STATEMENT

This disparity study report provides a strong basis in evidence for the State to take active measures to ensure nondiscrimination against women and racial and ethnic minorities. To bridge the gap between the disparities found in the Study and the fair, open and inclusive procurement process that the State seeks to have, it will be necessary to address the deep disparities found. If the recommendations of the Study are implemented, the State should achieve a high degree of remedial success in its procurement processes and enhance its overall economic environment.

Griffin \& Strong, P.C.
November, 2020

## APPENDIX A EXPANDED LEGAL ANALYSIS

## APPENDIX A - EXPANDED LEGAL ANALYSIS

Having provided an overview of the de facto genesis of disparity studies, the following underscores the legal benefit to such studies should an M/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 an M/WBE program is initiated, and each is addressed in turn.

## 1. 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. $\underline{\text { S. J. Groves \& Sons Company v. Fulton County et al, } 920 \text { F.2d }}$ 752, 767 (11th Cir. 1991).

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-based, the program or ordinance will be reviewed under the less-stringent "intermediate scrutiny standard."
"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). ${ }^{1}$ 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). These concepts are covered in greater depth below.

Though still unsettled in some federal Circuits, it appears in the Fourth Circuit that programs with genderbased classifications are evaluated for constitutionality under a more relaxed level of scrutiny than racebased ones, i.e., intermediate scrutiny:

Precedent dictates, and the parties agree, that courts apply "intermediate scrutiny" to statutes that classify on the basis of gender. Adkins v. Rumsfeld, 464 F.3d 456, 468 (4th Cir.2006); see also Miss. Univ. for Women v. Hogan, 458 U.S. 718, 724, 102 S.Ct. 3331, 73 L.Ed.2d 1090 (1982). A defender of such a statute meets this burden "by showing at least

[^43]that the classification serves important governmental objectives and that the discriminatory means employed are substantially related to the achievement of those objectives." Hogan, 458 U.S. at 724, 102 S.Ct. 3331 (internal quotation marks omitted). Of course, intermediate scrutiny requires less of a showing than does "the most exacting" strict scrutiny standard of review. See Clark v. Jeter, 486 U.S. 456, 461, 108 S.Ct. 1910, 100 L.Ed.2d 465 (1988). [H.B. Rowe Co., Inc. v. Tippett, 615 F.3d at 242]

In light of the above, the gender-based classification component in the North Carolina program will be analyzed under level of scrutiny which is more favorable to the than that which will be applied to the racebased component, if challenged.

## 2. Government as Active or Passive Participant 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. ${ }^{2}$ Rather, there must be some showing of prior discrimination by the governmental actor involved, either as an "active" or "passive" participant. 3 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. 4

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. 3 d 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.

## 3. Burdens of Production/Proof

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. ${ }^{5}$ 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

[^44]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." ${ }^{6}$

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. 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. 7

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 M/WBEs, the number of $\mathrm{M} / \mathrm{WBE}$ contractors actually awarded a contract by the governmental entity, or M/WBEs 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 M/WBE program it purports to advance. ${ }^{8}$ If the governmental body is able to do this, then the burden shifts to the challenging party to rebut the showing. 9

Once the governmental entity has shown acceptable proof of a compelling interest in remedying past discrimination and 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."). ${ }^{10}$

## 4. "Compelling Public Interest" Considerations

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. $2 d 207$ (1996).

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

[^45]II ) (quoting W.H. Scott Constr. Co. v. City of Jackson, 199 F.3d 206, 218 n. 11 (5th Cir.1999)). [H.B. Rowe, 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.

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) ("Combatting racial discrimination is a compelling government interest."). ${ }^{11}$

## 5. Statistical Data and Anecdotal Evidence Combine to Establish Compelling Interest

The types of evidence routinely presented to show the existence of a compelling interest include statistical and anecdotal evidence. ${ }^{12}$ 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. See infra.

For example, the Croson majority implicitly endorsed the value of personal accounts of discrimination, but Croson and subsequent decisions also make clear that selective anecdotal evidence about M/WBE experiences alone would not provide an ample basis in evidence to demonstrate public or private discrimination in a municipality's construction industry. ${ }^{13}$

Thus, 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]

[^46]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. ${ }^{14}$

## a) Statistical Data Generally

In Croson, the court 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 $\ldots$ and the number of such contractors actually engaged by the locality or the locality's prime contractors." ${ }^{15}$ A predicate to governmental action is a demonstration that gross statistical disparities exist between the proportion of M/WBEs awarded government contracts and the proportion of M/WBEs 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 determine, based upon these qualifications, the relevant statistical pool with which to make the appropriate statistical comparisons. ${ }^{16}$

## b) Availability

The attempted methods of calculating M/WBE (or DBE) 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 nonM/WBEs, which itself was based on census data.

In Associated General Contractors v. City of Columbus, ${ }^{17}$ the City's consultants collected data on the number of M/WBE firms in the Columbus MSA in order to calculate the percentage of available M/WBE firms. Three sources were considered to determine the number of M/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 M/WBEs who were qualified and willing to bid as a prime contractor on City construction projects because neither the City Auditor Vendor Payment History file, Subcontractor Participation Reports, or 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

[^47]in the evidence for an inference that qualified M/WBE firms exist in the same proportions as they do in relation to all construction firms in the market." 18

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." ${ }^{19}$

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[.]" ${ }^{20}$

A common question in collecting and applying availability data is whether prime contractor and subcontractor data needs to be evaluated separately; the trend is to accept combined data.

> 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. $\S 26.45($ 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, Inc. v. Illinois DOT, 473 F.3d $715,723\left(7^{\text {th }}\right.$ Cir. 2007)] ${ }^{21}$

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 womenowned. Wainwright supplemented this survey with IDOT's list of DBEs in Illinois."). ${ }^{22}$ In Kossman, for example, 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." ${ }^{23}$

[^48]
## c) Utilization

Utilization is a natural corollary to 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. ${ }^{24}$ 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. ${ }^{25}$ 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. . . . 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]

## d) Disparity Indices

To demonstrate the under-utilization of M/WBEs (or DBEs) 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. ${ }^{26}$ The resulting calculations "demonstrated marked underutilization of [] African American and Native American subcontractors," according to the court. ${ }^{27}$

[^49]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. ${ }^{28}$ Specifically, courts have used these 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. ${ }^{29}$ Based on a disparity index of o.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. ${ }^{30}$ Similarly, the Third Circuit held that a disparity of 0.04 was "probative of discrimination in City contracting in the Philadelphia construction industry." ${ }^{11}$

## e) 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.

As noted above, standard deviations were applied by the State of North Carolina in the statistical analysis utilized to defend its M/WBE program in H.B. Rowe. ${ }^{32}$ 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. 3 d 1545, 1556 (11th Cir. 1994) (quoting Castaneda v. Partida, 430 U.S. 482, 497 n.17, 97 S.Ct. 1272, 1281 n.17, (1977)).

## f) 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. 33

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

[^50]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 fulltime 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]

In Kossman v. City of Houston, the key feature of the supporting study was a regression analysis addressing availability and utilization. ${ }^{34}$ Using both statistical and anecdotal evidence, the study ultimately concluded that "business discrimination against M/WBEs existed in the geographic and industry markets for [the City's] awarding of construction contracts":
[W]e conclude that there is strong evidence of large, adverse, and frequently statistically significant disparities between minority and female participation in business enterprise activity in [Defendant's] relevant market area and the actual current availability of those businesses. We further conclude that these disparities cannot be explained solely, or even primarily, by difference between M/WBE and non-M/WBE business populations in factors untainted by discrimination, and that these differences therefore give rise to a strong inference of the continued presence of discrimination in [Defendant's] market area. There is also strong anecdotal evidence of continuing barriers to the full and fair participation of M/WBEs on [Defendant] contracts and subcontracts, despite the implementation of the M/W/SBE Program, and in the wider Houston construction economy. Remedial efforts remain necessary to ensure that Houston does not function as a passive participant in discrimination. [Kossman, at p. 11]

## g) Use of Post-Enactment Evidence to Support Program

When analyzing the types of statistical and anecdotal evidence a governmental entity may utilize in order to meet its initial burden to show a "strong basis in evidence" that its race- and gender-conscious contract program is aimed at remedying identified past or present discrimination, it is important to note that state and federal courts governing North Carolina appear to hold that the evidence offered need not pre-date the enactment of the program or legislation under challenge.

By way of background, in Croson the Court stated that a state or local government "must identify that discrimination . . . with some specificity before they may use race-conscious relief." ${ }^{35}$ However, the Court declined to require that all relevant evidence of such discrimination be gathered prior to the enactment of the program. This is important, as it allows a governmental entity to utilize a variety of evidentiary sources, but also to supplement such pre-enactment evidence with disparity evidence gathered after the program has been initiated. ${ }^{36}$ Post-enactment evidence can often be devalued by courts when a constitutional

[^51]challenge is made, though most applying Croson's evidentiary requirement nonetheless allow reliance on post-enactment evidence. ${ }^{37}$

In Ensley Branch N.A.A.C.P. v. Seibels, 31 F.3d 1548, 1565 (11th Cir. 1994), the Eleventh Circuit explicitly held that post-enactment evidence is properly introduced in the record and relied upon by district courts in determining the constitutionality of government race/gender-conscious programs. This holding was more recently reaffirmed in Engineering Contractors Ass'n v. Metropolitan Dade, 122 F. 3 d 895:

> With respect to the BBE program, most of the statistical evidence presented by the County is "post-enactment" evidence, i.e. evidence based on data related to years following the County's initial enactment of the BBE program in 1982. As we and a number of other circuits have held, the use of that kind of evidence is permissible: Although Croson requires that a public employer show strong evidence of discrimination when defending an affirmative action plan, the Supreme Court has never required that, before implementing affirmative action, the employer must have already proved that it has discriminated. On the contrary, formal findings of discrimination need neither precede nor accompany the adoption of affirmative action. Ensley Branch, 31 F.3d at $1565[$.$] [Id. at 911$.

There has been little analysis or discussion in Fourth Circuit M/WBE cases regarding the proper role of post-enactment evidence, perhaps because the Circuit considers it settled, and thus, unremarkable. Such a view can be supported by reference to the decision of the North Carolina Court of Appeals in Dickerson Carolina, Inc. v. Harrelson, 443 S.E.2d at 131-32 ("The law is plain that the constitutional sufficiency of a state's proffered reasons necessitating an affirmative action plan should be assessed on whatever evidence is presented, whether prior to or subsequent to the program's enactment.") (citations omitted).

## 6. Requirement for a Narrowly-Tailored Remedy

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." Virdi v. DeKalb County School District, 135 Fed. Appx. 262 (2005). ${ }^{38}$

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)] ${ }^{39}$

Similar 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;

[^52]- Remedies are limited to redressing the discrimination within the boundaries of the enacting jurisdiction;
- The goals of the programs should be flexible and provide waiver provisions;
- Race and/or gender neutral measures should be considered; and
- The program should include provisions or mechanisms for periodic review and sunset. 40

Inherent in the above discussion is the notion that $\mathrm{M} / \mathrm{WBE}$ 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 M/WBE program to guarantee that remedies do not out-live their intended remedial purpose. As an example, the Fourth Circuit had little problem rejecting a challenged college scholarship program because it had no "sunset" provision. ${ }^{41}$ In contrast, in H.B. Rowe, the court specifically noted with approval the mandatory review and sunset provisions included in the relevant North Carolina statute (§ 136-28.4).42

## CONCLUSION

The Croson decision, handed down thirty years ago, continues to cast a long shadow over M/WBE (and DBE) programs and legislation. Significant refinement by the Supreme Court and the federal Circuit Courts of Appeal transpired in its wake, though, addressing the acceptable and proper methodologies for achieving the legal standards established by Croson.

In fact, the Court in Kossman recently included in its opinion a lengthy legal overview of what it dubbed "Croson's Continuing Significance." In this section of its decision, the court opined about why a statistical analysis like that presented by the City of Houston was necessary and proper under the Equal Protection scheme established by Croson and refined by its (continuing) progeny. ${ }^{43}$ In many respects, this opinion provides a roadmap for success in implementing and defending an M/WBE program - such as the North Carolina HUB program -- under the current state of the law - with appropriate attribution and reference to Croson.

[^53]
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## APPENDIX B DETAILED AVAILABILITY ANALYSIS

## APPENDIX B: DETAILED AVAILABILITY

The tables in Appendix B (Tables B-1 through B-5) presents numbers on MWBE availability corresponding to the availability percentages in Figures 1-5 in the Quantitative Analysis chapter. The availability methodology for creating the Master Vendor table for these availability tables is contained in the Quantitative Analysis chapter.

Table B-1
Availability of Firms by Business Ownership in Market Area
Construction
North Carolina Disparity Study

| Business Ownership Classification | Number of Firms | Percent of Firms |
| :--- | :---: | :---: |
| Black American | 519 | $13.71 \%$ |
| Asian American | 39 | $1.03 \%$ |
| Hispanic American | 159 | $4.20 \%$ |
| Native American | 79 | $2.09 \%$ |
| TOTAL MBE | 796 | $\mathbf{2 1 . 0 2 \%}$ |
| Nonminority Female | 475 | $12.55 \%$ |
| TOTAL M/WBE | 1,271 | $\mathbf{3 3 . 5 7 \%}$ |
| NON-M/WBE | 2,515 | $66.43 \%$ |
| TOTAL FIRMS | 3,786 | $\mathbf{1 0 0 . 0 0 \%}$ |

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Table B-2
Availability of Firms by Business Ownership in Market Area
Architecture \& Engineering
North Carolina Disparity Study

| Business Ownership Classification | Number of <br> Firms | Percent of Firms |
| :--- | :---: | :---: |
| Black American | 55 | $9.17 \%$ |
| Asian American | 19 | $3.17 \%$ |
| Hispanic American | 21 | $3.50 \%$ |
| Native American | 11 | $1.83 \%$ |
| TOTAL MBE | $\mathbf{1 0 6}$ | $\mathbf{1 7 . 6 7 \%}$ |
| Nonminority Female | 83 | $13.83 \%$ |
| TOTAL M/WBE | $\mathbf{1 8 9}$ | $\mathbf{3 1 . 5 0 \%}$ |
| NON-M/WDBE | 411 | $68.50 \%$ |
| TOTAL FIRMS | $\mathbf{6 0 0}$ | $\mathbf{1 0 0 . 0 0 \%}$ |

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Table B-3
Availability of Firms by Business Ownership in Market Area
Professional Services
North Carolina Disparity Study

| Business Ownership Classification | Number of <br> Firms | Percent of Firms |
| :--- | :---: | :---: |
| Black American | 342 | $15.68 \%$ |
| Asian American | 50 | $2.29 \%$ |
| Hispanic American | 37 | $1.70 \%$ |
| Native American | 27 | $1.24 \%$ |
| TOTAL MBE | $\mathbf{4 5 6}$ | $\mathbf{2 0 . 9 1 \%}$ |
| Nonminority Female | $\mathbf{1 7 7}$ | $8.12 \%$ |
| TOTAL M/WBE | $\mathbf{6 3 3}$ | $\mathbf{2 9 . 0 2 \%}$ |
| NON-M/WDBE | $\mathbf{1 , 5 4 8}$ | $\mathbf{7 0 . 9 8 \%}$ |
| TOTAL FIRMS | $\mathbf{2 , 1 8 1}$ | $\mathbf{1 0 0 . 0 0 \%}$ |

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Table B-4
Availability of Firms by Business Ownership in Market Area
Prime Data, Other Services
North Carolina Disparity Study

| Business Ownership Classification | Number of Firms | Percent of Firms |
| :--- | :---: | :---: |
| Black American | 918 | $6.85 \%$ |
| Asian American | 79 | $0.59 \%$ |
| Hispanic American | 95 | $0.71 \%$ |
| Native American | 40 | $0.30 \%$ |
| TOTAL MBE | $\mathbf{1 , 1 3 2}$ | $\mathbf{8 . 4 4 \%}$ |
| Nonminority Female | 516 | $\mathbf{3 . 8 5 \%}$ |
| TOTAL M/WBE | $\mathbf{1 , 6 4 8}$ | $\mathbf{1 2 . 2 9 \%}$ |
| NON-M/WDBE | $\mathbf{1 1 , 7 6 1}$ | $\mathbf{8 7 . 7 1 \%}$ |
| TOTAL FIRMS | $\mathbf{1 3 , 4 0 9}$ | $\mathbf{1 0 0 . 0 0 \%}$ |

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Table B-5
Availability of Firms by Business Ownership in Market Area
Prime Data, Goods
North Carolina Disparity Study

| Business Ownership Classification | Number of <br> Firms | Percent of Firms |
| :--- | :---: | :---: |
| Black American | 265 | $2.99 \%$ |
| Asian American | 38 | $0.43 \%$ |
| Hispanic American | 60 | $0.68 \%$ |
| Native American | 23 | $0.26 \%$ |
| TOTAL MBE | $\mathbf{3 8 6}$ | $\mathbf{4 . 3 5 \%}$ |
| Nonminority Female | 318 | $3.58 \%$ |
| TOTAL M/WBE | $\mathbf{7 0 4}$ | $\mathbf{7 . 9 3 \%}$ |
| NON-M/WDBE | $\mathbf{8 , 1 6 9}$ | $\mathbf{9 2 . 0 7 \%}$ |
| TOTAL FIRMS | $\mathbf{8 , 8 7 3}$ | $\mathbf{1 0 0 . 0 0 \%}$ |

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## APPENDIX C: DETAILED DISPARITY RATIOS BY YEAR

The tables in Appendix C (Tables C-1 through C-7) presents disparity ratios on North Carolina projects by year over the Study Period. The only overutilization was for Asian Americans in Prime Other Services (Table C-4). There are no Total Utilization (prime plus subcontractor) tables for Professional Services, Other Services and Goods because there was little to no subcontracting in those areas.

Table C-1

## Disparity Results, Relevant Market Area

## Business Ownership Classification by Fiscal Year, Prime Construction

Using Payment Dollars, FY 2014-2018
North Carolina Disparity Study

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | $\begin{gathered} \text { Less than } \\ 80 \% \end{gathered}$ | Statistical Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | Black American | 0.22\% | 13.71\% | 1.59 | Underutilization | * |  |
|  | Asian American | 0.00\% | 1.03\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.22\% | 4.20\% | 5.19 | Underutilization | * |  |
|  | American Indian | 0.00\% | 2.09\% | 0.00 | Underutilization | * |  |
|  | TOTAL MBE | 0.44\% | 21.02\% | 2.07 | Underutilization | * |  |
|  | Nonminority Female | 5.73\% | 12.55\% | 45.69 | Underutilization | * |  |
|  | TOTAL M/WBE | 6.17\% | 33.57\% | 18.37 | Underutilization | * |  |
|  | Non-M/WBE | 93.83\% | 66.43\% | 141.25 | Overutilization |  |  |
| 2015 | Black American | 0.77\% | 13.71\% | 5.60 | Underutilization | * |  |
|  | Asian American | 0.02\% | 1.03\% | 1.64 | Underutilization | * |  |
|  | Hispanic American | 0.19\% | 4.20\% | 4.63 | Underutilization | * |  |
|  | American Indian | 0.04\% | 2.09\% | 2.11 | Underutilization | * |  |
|  | TOTAL MBE | 1.02\% | 21.02\% | 4.86 | Underutilization | * |  |
|  | Nonminority Female | 4.97\% | 12.55\% | 39.61 | Underutilization | * |  |
|  | TOTAL M/WBE | 5.99\% | 33.57\% | 17.85 | Underutilization | * |  |
|  | Non-M/WBE | 94.01\% | 66.43\% | 141.52 | Overutilization |  |  |
| 2016 | Black American | 0.47\% | 13.71\% | 3.44 | Underutilization | * |  |
|  | Asian American | 0.01\% | 1.03\% | 1.27 | Underutilization | * |  |
|  | Hispanic American | 0.71\% | 4.20\% | 16.97 | Underutilization | * |  |
|  | American Indian | 0.04\% | 2.09\% | 1.80 | Underutilization | * |  |
|  | TOTAL MBE | 1.24\% | 21.02\% | 5.88 | Underutilization | * |  |
|  | Nonminority Female | 2.32\% | 12.55\% | 18.49 | Underutilization | * |  |
|  | TOTAL M/WBE | 3.56\% | 33.57\% | 10.59 | Underutilization | * |  |
|  | Non-M/WBE | 96.44\% | 66.43\% | 145.18 | Overutilization |  |  |
| 2017 | Black American | 0.32\% | 13.71\% | 2.36 | Underutilization | * |  |
|  | Asian American | 0.00\% | 1.03\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.64\% | 4.20\% | 15.33 | Underutilization | * |  |
|  | American Indian | 0.61\% | 2.09\% | 29.05 | Underutilization | * |  |
|  | TOTAL MBE | 1.57\% | 21.02\% | 7.48 | Underutilization | * |  |
|  | Nonminority Female | 2.12\% | 12.55\% | 16.91 | Underutilization | * |  |
|  | TOTAL M/WBE | 3.69\% | 33.57\% | 11.00 | Underutilization | * |  |
|  | Non-M/WBE | 96.31\% | 66.43\% | 144.98 | Overutilization |  |  |
| 2018 | Black American | 1.16\% | 13.71\% | 8.43 | Underutilization | * |  |
|  | Asian American | 0.01\% | 1.03\% | 1.01 | Underutilization | * |  |
|  | Hispanic American | 1.28\% | 4.20\% | 30.39 | Underutilization | * |  |
|  | American Indian | 0.18\% | 2.09\% | 8.46 | Underutilization | * |  |
|  | TOTAL MBE | 2.62\% | 21.02\% | 12.46 | Underutilization | * |  |
|  | Nonminority Female | 6.55\% | 12.55\% | 52.20 | Underutilization | * |  |
|  | TOTAL M/WBE | 9.17\% | 33.57\% | 27.31 | Underutilization | * |  |
|  | Non-M/WBE | 90.83\% | 66.43\% | 136.73 | Overutilization |  |  |
| Total | Black American | 0.58\% | 13.71\% | 4.21 | Underutilization | * | p < 205 |
|  | Asian American | 0.01\% | 1.03\% | 0.74 | Underutilization | * | p $<.05$ |
|  | Hispanic American | 0.62\% | 4.20\% | 14.87 | Underutilization | * | p < 205 |
|  | American Indian | 0.19\% | 2.09\% | 9.20 | Underutilization | * | p < 205 |
|  | TOTAL MBE | 1.40\% | 21.02\% | 6.67 | Underutilization | * | p < 0.05 |
|  | Nonminority Female | 4.25\% | 12.55\% | 33.86 | Underutilization | * | p < 0.05 |
|  | TOTAL M/WBE | 5.65\% | 33.57\% | 16.83 | Underutilization | * | p < 205 |
|  | Non-M/WBE | 94.35\% | 66.43\% | 142.03 | Overutilization |  |  |

[^54]Table C-2

## Disparity Results, Relevant Market Area

Business Ownership Classification by Fiscal Year, Prime Architecture \& Engineering
Using Payment Dollars, FY 2014-2018
North Carolina Disparity Study

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | $\begin{gathered} \text { Less than } \\ 80 \% \end{gathered}$ | Statistical Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | Black American | 0.00\% | 9.17\% | 0.00 | Underutilization | * |  |
|  | Asian American | 0.00\% | 3.17\% | 0.11 | Underutilization | * |  |
|  | Hispanic American | 0.22\% | 3.50\% | 6.16 | Underutilization | * |  |
|  | American Indian | 0.16\% | 1.83\% | 8.92 | Underutilization | * |  |
|  | TOTAL MBE | 0.38\% | 17.67\% | 2.17 | Underutilization | * |  |
|  | Nonminority Female | 4.28\% | 13.83\% | 30.96 | Underutilization | * |  |
|  | TOTAL M/WBE | 4.67\% | 31.50\% | 14.81 | Underutilization | * |  |
|  | Non-M/WBE | 95.33\% | 68.50\% | 139.18 | Overutilization |  |  |
| 2015 | Black American | 1.30\% | 9.17\% | 14.17 | Underutilization | * |  |
|  | Asian American | 0.05\% | 3.17\% | 1.66 | Underutilization | * |  |
|  | Hispanic American | 0.24\% | 3.50\% | 6.72 | Underutilization | * |  |
|  | American Indian | 0.05\% | 1.83\% | 2.63 | Underutilization | * |  |
|  | TOTAL MBE | 1.64\% | 17.67\% | 9.26 | Underutilization | * |  |
|  | Nonminority Female | 6.33\% | 13.83\% | 45.79 | Underutilization | * |  |
|  | TOTAL M/WBE | 7.97\% | 31.50\% | 25.30 | Underutilization | * |  |
|  | Non-M/WBE | 92.03\% | 68.50\% | 134.35 | Overutilization |  |  |
| 2016 | Black American | 0.00\% | 9.17\% | 0.00 | Underutilization | * |  |
|  | Asian American | 0.00\% | 3.17\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.44\% | 3.50\% | 12.45 | Underutilization | * |  |
|  | American Indian | 0.03\% | 1.83\% | 1.48 | Underutilization | * |  |
|  | TOTAL MBE | 0.46\% | 17.67\% | 2.62 | Underutilization | * |  |
|  | Nonminority Female | 4.10\% | 13.83\% | 29.67 | Underutilization | * |  |
|  | TOTAL M/WBE | 4.57\% | 31.50\% | 14.50 | Underutilization | * |  |
|  | Non-M/WBE | 95.43\% | 68.50\% | 139.32 | Overutilization |  |  |
| 2017 | Black American | 0.00\% | 9.17\% | 0.00 | Underutilization | * |  |
|  | Asian American | 0.00\% | 3.17\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.26\% | 3.50\% | 7.50 | Underutilization | * |  |
|  | American Indian | 0.30\% | 1.83\% | 16.47 | Underutilization | * |  |
|  | TOTAL MBE | 0.56\% | 17.67\% | 3.19 | Underutilization | * |  |
|  | Nonminority Female | 8.13\% | 13.83\% | 58.77 | Underutilization | * |  |
|  | TOTAL M/WBE | 8.69\% | 31.50\% | 27.60 | Underutilization | * |  |
|  | Non-M/WBE | 91.31\% | 68.50\% | 133.29 | Overutilization |  |  |
| 2018 | Black American | 0.02\% | 9.17\% | 0.18 | Underutilization | * |  |
|  | Asian American | 0.00\% | 3.17\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.31\% | 3.50\% | 8.80 | Underutilization | * |  |
|  | American Indian | 2.91\% | 1.83\% | 158.98 | Overutilization |  |  |
|  | TOTAL MBE | 3.24\% | 17.67\% | 18.33 | Underutilization | * |  |
|  | Nonminority Female | 11.68\% | 13.83\% | 84.46 | Underutilization |  |  |
|  | TOTAL M/WBE | 14.92\% | 31.50\% | 47.37 | Underutilization | * |  |
|  | Non-M/WBE | 85.08\% | 68.50\% | 124.20 | Overutilization |  |  |
| Total | Black American | 0.24\% | 9.17\% | 2.59 | Underutilization | * | $p<.05$ |
|  | Asian American | 0.01\% | 3.17\% | 0.33 | Underutilization | * | $p<.05$ |
|  | Hispanic American | 0.28\% | 3.50\% | 7.96 | Underutilization | * | $p<.05$ |
|  | American Indian | 0.77\% | 1.83\% | 42.17 | Underutilization | * | $p<.05$ |
|  | TOTAL MBE | 1.30\% | 17.67\% | 7.35 | Underutilization | * | $p<.05$ |
|  | Nonminority Female | 7.02\% | 13.83\% | 50.78 | Underutilization | * | $p<.05$ |
|  | TOTAL M/WBE | 8.32\% | 31.50\% | 26.43 | Underutilization | * | p < . 05 |
|  | Non-M/WBE | 91.68\% | 68.50\% | 133.83 | Overutilization |  |  |

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Table C-3

## Disparity Results, Relevant Market Area

## Business Ownership Classification by Fiscal Year, Prime Professional Services

Using Payment Dollars, FY 2014-2018
North Carolina Disparity Study

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | $\begin{gathered} \text { Less than } \\ 80 \% \end{gathered}$ | Statistical <br> Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | Black American | 0.10\% | 15.68\% | 0.64 | Underutilization | * |  |
|  | Asian American | 0.03\% | 2.29\% | 1.23 | Underutilization | * |  |
|  | Hispanic American | 0.03\% | 1.70\% | 2.02 | Underutilization | * |  |
|  | American Indian | 0.07\% | 1.24\% | 5.36 | Underutilization | * |  |
|  | TOTAL MBE | 0.23\% | 20.91\% | 1.10 | Underutilization | * |  |
|  | Nonminority Female | 2.77\% | 8.12\% | 34.14 | Underutilization | * |  |
|  | TOTAL M/WBE | 3.00\% | 29.02\% | 10.34 | Underutilization | * |  |
|  | Non-M/WBE | 97.00\% | 70.98\% | 136.66 | Overutilization |  |  |
| 2015 | Black American | 0.51\% | 15.68\% | 3.26 | Underutilization | * |  |
|  | Asian American | 0.04\% | 2.29\% | 1.62 | Underutilization | * |  |
|  | Hispanic American | 0.00\% | 1.70\% | 0.16 | Underutilization | * |  |
|  | American Indian | 0.06\% | 1.24\% | 5.13 | Underutilization | * |  |
|  | TOTAL MBE | 0.61\% | 20.91\% | 2.94 | Underutilization | * |  |
|  | Nonminority Female | 1.76\% | 8.12\% | 21.66 | Underutilization | * |  |
|  | TOTAL M/WBE | 2.37\% | 29.02\% | 8.17 | Underutilization | * |  |
|  | Non-M/WBE | 97.63\% | 70.98\% | 137.55 | Overutilization |  |  |
| 2016 | Black American | 0.01\% | 15.68\% | 0.04 | Underutilization | * |  |
|  | Asian American | 0.00\% | 2.29\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.00\% | 1.70\% | 0.00 | Underutilization | * |  |
|  | American Indian | 0.00\% | 1.24\% | 0.22 | Underutilization | * |  |
|  | TOTAL MBE | 0.01\% | 20.91\% | 0.04 | Underutilization | * |  |
|  | Nonminority Female | 1.54\% | 8.12\% | 18.94 | Underutilization | * |  |
|  | TOTAL M/WBE | 1.55\% | 29.02\% | 5.33 | Underutilization | * |  |
|  | Non-M/WBE | 98.45\% | 70.98\% | 138.71 | Overutilization |  |  |
| 2017 | Black American | 0.01\% | 15.68\% | 0.04 | Underutilization | * |  |
|  | Asian American | 0.02\% | 2.29\% | 0.77 | Underutilization | * |  |
|  | Hispanic American | 0.00\% | 1.70\% | 0.00 | Underutilization | * |  |
|  | American Indian | 0.05\% | 1.24\% | 3.82 | Underutilization | * |  |
|  | TOTAL MBE | 0.07\% | 20.91\% | 0.34 | Underutilization | * |  |
|  | Nonminority Female | 0.63\% | 8.12\% | 7.74 | Underutilization | * |  |
|  | TOTAL M/WBE | 0.70\% | 29.02\% | 2.41 | Underutilization | * |  |
|  | Non-M/WBE | 99.30\% | 70.98\% | 139.90 | Overutilization |  |  |
| 2018 | Black American | 0.01\% | 15.68\% | 0.07 | Underutilization | * |  |
|  | Asian American | 0.06\% | 2.29\% | 2.67 | Underutilization | * |  |
|  | Hispanic American | 0.14\% | 1.70\% | 7.96 | Underutilization | * |  |
|  | American Indian | 0.00\% | 1.24\% | 0.00 | Underutilization | * |  |
|  | TOTAL MBE | 0.21\% | 20.91\% | 0.99 | Underutilization | * |  |
|  | Nonminority Female | 1.28\% | 8.12\% | 15.73 | Underutilization | * |  |
|  | TOTAL M/WBE | 1.48\% | 29.02\% | 5.11 | Underutilization | * |  |
|  | Non-M/WBE | 98.52\% | 70.98\% | 138.80 | Overutilization |  |  |
| Total | Black American | 0.13\% | 15.68\% | 0.82 | Underutilization | * | p<. 05 |
|  | Asian American | 0.03\% | 2.29\% | 1.23 | Underutilization | * | $\mathrm{p}<.05$ |
|  | Hispanic American | 0.03\% | 1.70\% | 1.99 | Underutilization | * | $p<.05$ |
|  | American Indian | 0.03\% | 1.24\% | 2.80 | Underutilization | * | p<. 05 |
|  | TOTAL MBE | 0.22\% | 20.91\% | 1.08 | Underutilization | * | $\mathrm{p}<.05$ |
|  | Nonminority Female | 1.59\% | 8.12\% | 19.55 | Underutilization | * | $\mathrm{p}<.05$ |
|  | TOTAL M/WBE | 1.81\% | 29.02\% | 6.24 | Underutilization | * | p<. 05 |
|  | Non-M/WBE | 98.19\% | 70.98\% | 138.34 | Overutilization |  |  |

[^55]Table C-4

## Disparity Results, Relevant Market Area

## Business Ownership Classification by Fiscal Year, Prime Other Services

Using Payment Dollars, FY 2014-2018
North Carolina Disparity Study

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | $\begin{aligned} & \text { Less than } \\ & 80 \% \end{aligned}$ | Statistical Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | Black American | 0.21\% | 6.85\% | 3.10 | Underutilization | * |  |
|  | Asian American | 0.38\% | 0.59\% | 64.94 | Underutilization | * |  |
|  | Hispanic American | 0.01\% | 0.71\% | 0.79 | Underutilization | * |  |
|  | American Indian | 0.00\% | 0.30\% | 0.36 | Underutilization | * |  |
|  | TOTAL MBE | 0.60\% | 8.44\% | 7.12 | Underutilization | * |  |
|  | Nonminority Female | 0.84\% | 3.85\% | 21.76 | Underutilization | * |  |
|  | TOTAL M/WBE | 1.44\% | 12.29\% | 11.70 | Underutilization | * |  |
|  | Non-M/WBE | 98.56\% | 87.71\% | 112.37 | Overutilization |  |  |
| 2015 | Black American | 0.35\% | 6.85\% | 5.13 | Underutilization | * |  |
|  | Asian American | 0.35\% | 0.59\% | 58.83 | Underutilization | * |  |
|  | Hispanic American | 0.00\% | 0.71\% | 0.20 | Underutilization | * |  |
|  | American Indian | 0.00\% | 0.30\% | 0.26 | Underutilization | * |  |
|  | TOTAL MBE | 0.70\% | 8.44\% | 8.29 | Underutilization | * |  |
|  | Nonminority Female | 0.92\% | 3.85\% | 24.00 | Underutilization | * |  |
|  | TOTAL M/WBE | 1.62\% | 12.29\% | 13.21 | Underutilization | * |  |
|  | Non-M/WBE | 98.38\% | 87.71\% | 112.16 | Overutilization |  |  |
| 2016 | Black American | 0.47\% | 6.85\% | 6.83 | Underutilization | * |  |
|  | Asian American | 0.48\% | 0.59\% | 81.73 | Underutilization |  |  |
|  | Hispanic American | 0.01\% | 0.71\% | 0.79 | Underutilization | * |  |
|  | American Indian | 0.00\% | 0.30\% | 0.07 | Underutilization | * |  |
|  | TOTAL MBE | 0.95\% | 8.44\% | 11.31 | Underutilization | * |  |
|  | Nonminority Female | 0.67\% | 3.85\% | 17.32 | Underutilization | * |  |
|  | TOTAL M/WBE | 1.62\% | 12.29\% | 13.19 | Underutilization | * |  |
|  | Non-M/WBE | 98.38\% | 87.71\% | 112.16 | Overutilization |  |  |
| 2017 | Black American | 0.24\% | 6.85\% | 3.46 | Underutilization | * |  |
|  | Asian American | 1.66\% | 0.59\% | 280.91 | Overutilization |  |  |
|  | Hispanic American | 0.01\% | 0.71\% | 0.82 | Underutilization | * |  |
|  | American Indian | 0.04\% | 0.30\% | 13.95 | Underutilization | * |  |
|  | TOTAL MBE | 1.94\% | 8.44\% | 22.97 | Underutilization | * |  |
|  | Nonminority Female | 0.72\% | 3.85\% | 18.66 | Underutilization | * |  |
|  | TOTAL M/WBE | 2.66\% | 12.29\% | 21.62 | Underutilization | * |  |
|  | Non-M/WBE | 97.34\% | 87.71\% | 110.98 | Overutilization |  |  |
| 2018 | Black American | 0.22\% | 6.85\% | 3.27 | Underutilization | * |  |
|  | Asian American | 1.45\% | 0.59\% | 246.61 | Overutilization |  |  |
|  | Hispanic American | 0.00\% | 0.71\% | 0.04 | Underutilization | * |  |
|  | American Indian | 0.01\% | 0.30\% | 3.88 | Underutilization | * |  |
|  | TOTAL MBE | 1.69\% | 8.44\% | 20.00 | Underutilization | * |  |
|  | Nonminority Female | 0.41\% | 3.85\% | 10.58 | Underutilization | * |  |
|  | TOTAL M/WBE | 2.10\% | 12.29\% | 17.05 | Underutilization | * |  |
|  | Non-M/WBE | 97.90\% | 87.71\% | 111.62 | Overutilization |  |  |
| Total | Black American | 0.29\% | 6.85\% | 4.29 | Underutilization | * | p < . 05 |
|  | Asian American | 0.99\% | 0.59\% | 168.75 | Overutilization |  |  |
|  | Hispanic American | 0.00\% | 0.71\% | 0.51 | Underutilization | * | p < . 05 |
|  | American Indian | 0.01\% | 0.30\% | 4.61 | Underutilization | * | p< 0.05 |
|  | TOTAL MBE | 1.31\% | 8.44\% | 15.47 | Underutilization | * | $\mathrm{p}<.05$ |
|  | Nonminority Female | 0.68\% | 3.85\% | 17.58 | Underutilization | * | p< 05 |
|  | TOTAL M/WBE | 1.98\% | 12.29\% | 16.13 | Underutilization | * | p< 0.05 |
|  | Non-M/WBE | 98.02\% | 87.71\% | 111.75 | Overutilization |  |  |

Griffin \& Strong, P.C. 2020
Table C-5

## Disparity Results, Relevant Market Area

Business Ownership Classification by Fiscal Year, Prime Goods
Using Payment Dollars, FY 2014-2018
North Carolina Disparity Study

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | $\begin{gathered} \text { Less than } \\ 80 \% \end{gathered}$ | Statistical Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | Black American | 0.11\% | 2.99\% | 3.57 | Underutilization | * |  |
|  | Asian American | 0.78\% | 0.43\% | 183.05 | Overutilization |  |  |
|  | Hispanic American | 0.00\% | 0.68\% | 0.39 | Underutilization | * |  |
|  | American Indian | 0.00\% | 0.26\% | 0.56 | Underutilization | * |  |
|  | TOTAL MBE | 0.89\% | 4.35\% | 20.57 | Underutilization | * |  |
|  | Nonminority Female | 0.66\% | 3.58\% | 18.54 | Underutilization | * |  |
|  | TOTAL M/WBE | 1.56\% | 7.93\% | 19.65 | Underutilization | * |  |
|  | Non-M/WBE | 98.44\% | 92.07\% | 106.92 | Overutilization |  |  |
| 2015 | Black American | 0.08\% | 2.99\% | 2.77 | Underutilization | * |  |
|  | Asian American | 1.22\% | 0.43\% | 284.94 | Overutilization |  |  |
|  | Hispanic American | 0.01\% | 0.68\% | 1.68 | Underutilization | * |  |
|  | American Indian | 0.01\% | 0.26\% | 2.80 | Underutilization | * |  |
|  | TOTAL MBE | 1.32\% | 4.35\% | 30.38 | Underutilization | * |  |
|  | Nonminority Female | 0.76\% | 3.58\% | 21.22 | Underutilization | * |  |
|  | TOTAL M/WBE | 2.08\% | 7.93\% | 26.24 | Underutilization | * |  |
|  | Non-M/WBE | 97.92\% | 92.07\% | 106.36 | Overutilization |  |  |
| 2016 | Black American | 0.16\% | 2.99\% | 5.31 | Underutilization | * |  |
|  | Asian American | 0.50\% | 0.43\% | 117.15 | Overutilization |  |  |
|  | Hispanic American | 0.02\% | 0.68\% | 3.16 | Underutilization | * |  |
|  | American Indian | 0.01\% | 0.26\% | 3.16 | Underutilization | * |  |
|  | TOTAL MBE | 0.69\% | 4.35\% | 15.86 | Underutilization | * |  |
|  | Nonminority Female | 0.80\% | 3.58\% | 22.28 | Underutilization | * |  |
|  | TOTAL M/WBE | 1.49\% | 7.93\% | 18.76 | Underutilization | * |  |
|  | Non-M/WBE | 98.51\% | 92.07\% | 107.00 | Overutilization |  |  |
| 2017 | Black American | 0.05\% | 2.99\% | 1.74 | Underutilization | * |  |
|  | Asian American | 0.13\% | 0.43\% | 31.07 | Underutilization | * |  |
|  | Hispanic American | 0.03\% | 0.68\% | 4.18 | Underutilization | * |  |
|  | American Indian | 0.00\% | 0.26\% | 1.55 | Underutilization | * |  |
|  | TOTAL MBE | 0.22\% | 4.35\% | 4.99 | Underutilization | * |  |
|  | Nonminority Female | 0.58\% | 3.58\% | 16.11 | Underutilization | * |  |
|  | TOTAL M/WBE | 0.79\% | 7.93\% | 10.02 | Underutilization | * |  |
|  | Non-M/WBE | 99.21\% | 92.07\% | 107.75 | Overutilization |  |  |
| 2018 | Black American | 0.03\% | 2.99\% | 1.00 | Underutilization | * |  |
|  | Asian American | 0.04\% | 0.43\% | 10.32 | Underutilization | * |  |
|  | Hispanic American | 0.03\% | 0.68\% | 4.08 | Underutilization | * |  |
|  | American Indian | 0.00\% | 0.26\% | 1.40 | Underutilization | * |  |
|  | TOTAL MBE | 0.11\% | 4.35\% | 2.42 | Underutilization | * |  |
|  | Nonminority Female | 0.28\% | 3.58\% | 7.77 | Underutilization | * |  |
|  | TOTAL M/WBE | 0.38\% | 7.93\% | 4.83 | Underutilization | * |  |
|  | Non-M/WBE | 99.62\% | 92.07\% | 108.20 | Overutilization |  |  |
| Total | Black American | 0.07\% | 2.99\% | 2.30 | Underutilization | * | p < . 05 |
|  | Asian American | 0.38\% | 0.43\% | 89.54 | Underutilization |  | Small Number |
|  | Hispanic American | 0.02\% | 0.68\% | 3.13 | Underutilization | * | p < . 05 |
|  | American Indian | 0.00\% | 0.26\% | 1.70 | Underutilization | * | $p<.05$ |
|  | TOTAL MBE | 0.48\% | 4.35\% | 10.98 | Underutilization | * | p < . 05 |
|  | Nonminority Female | 0.53\% | 3.58\% | 14.79 | Underutilization | * | p<.05 |
|  | TOTAL M/WBE | 1.01\% | 7.93\% | 12.70 | Underutilization | * | p<. 05 |
|  | Non-M/WBE | 98.99\% | 92.07\% | 107.52 | Overutilization |  |  |

[^56]
## Table C-6

## Disparity Results, Relevant Market Area

## Business Ownership Classification by Fiscal Year, Total Utilization Construction

Using Payment Dollars, FY 2014-2018

## North Carolina Disparity Study

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | $\begin{aligned} & \text { Less than } \\ & 80 \% \end{aligned}$ | Statistical Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | Black American | 0.99\% | 13.71\% | 7.22 | Underutilization | * |  |
|  | Asian American | 0.00\% | 1.03\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.37\% | 4.20\% | 8.69 | Underutilization | * |  |
|  | American Indian | 0.24\% | 2.09\% | 11.27 | Underutilization | * |  |
|  | TOTAL MBE | 1.59\% | 21.02\% | 7.56 | Underutilization | * |  |
|  | Nonminority Female | 6.16\% | 12.55\% | 49.08 | Underutilization | * |  |
|  | TOTAL M/WBE | 7.75\% | 33.57\% | 23.08 | Underutilization | * |  |
|  | Non-M/WBE | 92.25\% | 66.43\% | 138.87 | Overutilization |  |  |
| 2015 | Black American | 0.93\% | 13.71\% | 6.79 | Underutilization | * |  |
|  | Asian American | 0.02\% | 1.03\% | 1.64 | Underutilization | * |  |
|  | Hispanic American | 0.73\% | 4.20\% | 17.29 | Underutilization | * |  |
|  | American Indian | 0.04\% | 2.09\% | 2.11 | Underutilization | * |  |
|  | TOTAL MBE | 1.72\% | 21.02\% | 8.17 | Underutilization | * |  |
|  | Nonminority Female | 7.56\% | 12.55\% | 60.26 | Underutilization | * |  |
|  | TOTAL M/WBE | 9.28\% | 33.57\% | 27.64 | Underutilization | * |  |
|  | Non-M/WBE | 90.72\% | 66.43\% | 136.57 | Overutilization |  |  |
| 2016 | Black American | 0.47\% | 13.71\% | 3.45 | Underutilization | * |  |
|  | Asian American | 0.01\% | 1.03\% | 1.27 | Underutilization | * |  |
|  | Hispanic American | 0.72\% | 4.20\% | 17.09 | Underutilization | * |  |
|  | American Indian | 0.04\% | 2.09\% | 1.80 | Underutilization | * |  |
|  | TOTAL MBE | 1.24\% | 21.02\% | 5.91 | Underutilization | * |  |
|  | Nonminority Female | 2.37\% | 12.55\% | 18.88 | Underutilization | * |  |
|  | TOTAL M/WBE | 3.61\% | 33.57\% | 10.75 | Underutilization | * |  |
|  | Non-M/WBE | 96.39\% | 66.43\% | 145.10 | Overutilization |  |  |
| 2017 | Black American | 0.32\% | 13.71\% | 2.36 | Underutilization | * |  |
|  | Asian American | 0.00\% | 1.03\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.67\% | 4.20\% | 15.92 | Underutilization | * |  |
|  | American Indian | 0.61\% | 2.09\% | 29.05 | Underutilization | * |  |
|  | TOTAL MBE | 1.60\% | 21.02\% | 7.60 | Underutilization | * |  |
|  | Nonminority Female | 3.84\% | 12.55\% | 30.61 | Underutilization | * |  |
|  | TOTAL M/WBE | 5.44\% | 33.57\% | 16.20 | Underutilization | * |  |
|  | Non-M/WBE | 94.56\% | 66.43\% | 142.35 | Overutilization |  |  |
| 2018 | Black American | 1.53\% | 13.71\% | 11.19 | Underutilization | * |  |
|  | Asian American | 0.01\% | 1.03\% | 1.01 | Underutilization | * |  |
|  | Hispanic American | 1.38\% | 4.20\% | 32.84 | Underutilization | * |  |
|  | American Indian | 0.15\% | 2.09\% | 6.99 | Underutilization | * |  |
|  | TOTAL MBE | 3.07\% | 21.02\% | 14.60 | Underutilization | * |  |
|  | Nonminority Female | 7.55\% | 12.55\% | 60.21 | Underutilization | * |  |
|  | TOTAL M/WBE | 10.62\% | 33.57\% | 31.64 | Underutilization | * |  |
|  | Non-M/WBE | 89.38\% | 66.43\% | 134.55 | Overutilization |  |  |
| Total | Black American | 0.83\% | 13.71\% | 6.07 | Underutilization | * | p < 205 |
|  | Asian American | 0.01\% | 1.03\% | 0.74 | Underutilization | * | p < 0.05 |
|  | Hispanic American | 0.77\% | 4.20\% | 18.41 | Underutilization | * | p $<.05$ |
|  | American Indian | 0.23\% | 2.09\% | 11.08 | Underutilization | * | p < 0.05 |
|  | TOTAL MBE | 1.84\% | 21.02\% | 8.77 | Underutilization | * | p < 0.05 |
|  | Nonminority Female | 5.39\% | 12.55\% | 42.99 | Underutilization | * | p < 0.05 |
|  | TOTAL M/WBE | 7.24\% | 33.57\% | 21.56 | Underutilization | * | p < 05 |
|  | Non-M/WBE | 92.76\% | 66.43\% | 139.64 | Overutilization |  |  |

[^57]Table C-7

## Disparity Results, Relevant Market Area

## Business Ownership Classification by Fiscal Year, Total Utilization Architecture \& Engineering

## Using Payment Dollars, FY 2014-2018

North Carolina Disparity Study

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | $\begin{aligned} & \text { Less than } \\ & 80 \% \end{aligned}$ | Statistical Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | Black American | 0.00\% | 9.17\% | 0.00 | Underutilization | * |  |
|  | Asian American | 0.00\% | 3.17\% | 0.11 | Underutilization | * |  |
|  | Hispanic American | 0.22\% | 3.50\% | 6.16 | Underutilization | * |  |
|  | American Indian | 0.16\% | 1.83\% | 8.92 | Underutilization | * |  |
|  | TOTAL MBE | 0.38\% | 17.67\% | 2.17 | Underutilization | * |  |
|  | Nonminority Female | 4.32\% | 13.83\% | 31.25 | Underutilization | * |  |
|  | TOTAL M/WBE | 4.71\% | 31.50\% | 14.94 | Underutilization | * |  |
|  | Non-M/WBE | 95.29\% | 68.50\% | 139.12 | Overutilization |  |  |
| 2015 | Black American | 1.30\% | 9.17\% | 14.17 | Underutilization | * |  |
|  | Asian American | 0.05\% | 3.17\% | 1.66 | Underutilization | * |  |
|  | Hispanic American | 0.24\% | 3.50\% | 6.72 | Underutilization | * |  |
|  | American Indian | 0.05\% | 1.83\% | 2.63 | Underutilization | * |  |
|  | TOTAL MBE | 1.64\% | 17.67\% | 9.26 | Underutilization | * |  |
|  | Nonminority Female | 6.45\% | 13.83\% | 46.66 | Underutilization | * |  |
|  | TOTAL M/WBE | 8.09\% | 31.50\% | 25.68 | Underutilization | * |  |
|  | Non-M/WBE | 91.91\% | 68.50\% | 134.18 | Overutilization |  |  |
| 2016 | Black American | 0.01\% | 9.17\% | 0.10 | Underutilization | * |  |
|  | Asian American | 0.07\% | 3.17\% | 2.21 | Underutilization | * |  |
|  | Hispanic American | 0.44\% | 3.50\% | 12.45 | Underutilization | * |  |
|  | American Indian | 0.03\% | 1.83\% | 1.64 | Underutilization | * |  |
|  | TOTAL MBE | 0.54\% | 17.67\% | 3.08 | Underutilization | * |  |
|  | Nonminority Female | 5.42\% | 13.83\% | 39.20 | Underutilization | * |  |
|  | TOTAL M/WBE | 5.97\% | 31.50\% | 18.94 | Underutilization | * |  |
|  | Non-M/WBE | 94.03\% | 68.50\% | 137.27 | Overutilization |  |  |
| 2017 | Black American | 2.76\% | 9.17\% | 30.11 | Underutilization | * |  |
|  | Asian American | 0.00\% | 3.17\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.26\% | 3.50\% | 7.50 | Underutilization | * |  |
|  | American Indian | 0.35\% | 1.83\% | 19.08 | Underutilization | * |  |
|  | TOTAL MBE | 3.37\% | 17.67\% | 19.09 | Underutilization | * |  |
|  | Nonminority Female | 8.40\% | 13.83\% | 60.70 | Underutilization | * |  |
|  | TOTAL M/WBE | 11.77\% | 31.50\% | 37.36 | Underutilization | * |  |
|  | Non-M/WBE | 88.23\% | 68.50\% | 128.80 | Overutilization |  |  |
| 2018 | Black American | 0.27\% | 9.17\% | 2.93 | Underutilization | * |  |
|  | Asian American | 0.00\% | 3.17\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.57\% | 3.50\% | 16.21 | Underutilization | * |  |
|  | American Indian | 3.20\% | 1.83\% | 174.49 | Overutilization |  |  |
|  | TOTAL MBE | 4.03\% | 17.67\% | 22.84 | Underutilization | * |  |
|  | Nonminority Female | 12.47\% | 13.83\% | 90.14 | Underutilization |  |  |
|  | TOTAL M/WBE | 16.50\% | 31.50\% | 52.39 | Underutilization | * |  |
|  | Non-M/WBE | 83.50\% | 68.50\% | 121.89 | Overutilization |  |  |
| Total | Black American | 0.81\% | 9.17\% | 8.88 | Underutilization | * | p<. 05 |
|  | Asian American | 0.02\% | 3.17\% | 0.63 | Underutilization | * | $\mathrm{p}<.05$ |
|  | Hispanic American | 0.34\% | 3.50\% | 9.64 | Underutilization | * | p < . 05 |
|  | American Indian | 0.85\% | 1.83\% | 46.19 | Underutilization | * | p < . 05 |
|  | TOTAL MBE | 2.02\% | 17.67\% | 11.42 | Underutilization | * | p < . 05 |
|  | Nonminority Female | 7.46\% | 13.83\% | 53.96 | Underutilization | * | $\mathrm{p}<.05$ |
|  | TOTAL M/WBE | 9.48\% | 31.50\% | 30.10 | Underutilization | * | p<. 05 |
|  | Non-M/WBE | 90.52\% | 68.50\% | 132.14 | Overutilization |  |  |

Griffin \& Strong, P.C. 2020

## State of North Carolina Department of Administration 2020 Disparity Study

# APPENDIX D <br> UTILIZATION BY DEPARTMENTS, AGENCIES, AND DIVISIONS 

## APPENDIX D - UTILIZATION BY DEPARTMENT, AGENCIES, AND DIVISIONS

Table D-1 shows utilization by North Carolina Departments, Agencies and Divisions. The highest MWBE utilization for an agency with more than $\$ 1$ million in spending was J Iverson Riddle Center, with $39.64 \%$. The highest spending with MBEs $(\$ 17,680,726)$, WBEs $(\$ 9,704,469)$ and MWBEs $(\$ 27,385,195)$ in absolute dollars terms was with NCDOT.

## Table C-1

Prime Utilization by Agency, Relevant Market Area

## Business Ownership Classification by Fiscal Year

## Using Payment Dollars, FY 2015-2019

## North Carolina Disparity Study

| NC-State Agencies | Total |  |  | African-American |  |  | Asian-American |  |  | Hispanic-American |  |  | American Indian |  |  | Nonminority-Woman |  |  | Non-W/MBE |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | \$ | \% |  | \$ | \% |  | \$ | \% |  | \$ | \% |  | \$ | \% |  | \$ | \% |  | \$ | \% |
| BLACK MOUNTAIN CENTER |  | 5,208,443 | 0.05\% |  |  | 0.00\% | \$ | 17,710 | 0.34\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 33,100 | 0.64\% | \$ | 5,157,633 | 99.02\% |
| BROUGHTON HOSPITAL |  | 167,681,089 | 1.69\% |  |  | 0.00\% | \$ | 3,575 | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 670,294 | 0.40\% | \$ | 167,007,220 | 99.60\% |
| CASWELL CENTER |  | 6,799,695 | 0.07\% |  |  | 0.00\% | \$ | 37 | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 6,995 | 0.10\% | \$ | 6,792,664 | 99.90\% |
| CHERRY HOSPITAL |  | 40,310,643 | 0.41\% |  | 158,412 | 0.39\% | \$ | 595,351 | 1.48\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 1,994,601 | 4.95\% | \$ | 37,562,279 | 93.18\% |
| DACS-AGENCY FUND |  | 3,631,447 | 0.04\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 5,314 | 0.15\% | \$ | 3,626,133 | 99.85\% |
| DACS-CAPITAL PROJECTS FUND |  | 32,361,538 | 0.33\% | \$ | 120,932 | 0.37\% | \$ | 1,000 | 0.00\% |  |  | 0.00\% | \$ | 582,739 | 1.80\% | \$ | 7,507,519 | 23.20\% | \$ | 24,149,347 | 74.62\% |
| DACS-EXPENDABLE TRUST FUND | \$ | 3,208,624 | 0.03\% |  |  | 0.00\% | \$ | 22,594 | 0.70\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 3,186,030 | 99.30\% |
| DACS-GENERAL FUND |  | 67,434,720 | 0.68\% | \$ | 45,604 | 0.07\% | \$ | 650,911 | 0.97\% | \$ | 83,898 | 0.12\% | \$ | 95,665 | 0.14\% | \$ | 330,047 | 0.49\% | \$ | 66,228,594 | 98.21\% |
| DACS-INTERNAL SERVICE FUND |  | 4,292,041 | 0.04\% | \$ | 3,559 | 0.08\% | \$ | 10,454 | 0.24\% | \$ | 210 | 0.00\% |  |  | 0.00\% | \$ | 67,414 | 1.57\% | \$ | 4,210,405 | 98.10\% |
| DACS-SPECIAL FUND |  | 3,606,016 | 0.04\% | \$ | 7,575 | 0.21\% | \$ | 1,546 | 0.04\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 50,565 | 1.40\% | \$ | 3,546,330 | 98.34\% |
| Dept OF ADMINISTRATION |  | 184,487,887 | 1.85\% |  | 4,369,560 | 2.37\% | \$ | 3,590,180 | 1.95\% | \$ | 127,690 | 0.07\% | \$ | 5,074 | 0.00\% | \$ | 1,021,116 | 0.55\% | \$ | 175,374,267 | 95.06\% |
| Dept OF AGRICULTURE | \$ | 72,976 | 0.00\% |  |  | 0.00\% | \$ | 3,324 | 4.56\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 69,652 | 95.44\% |
| Dept OF COMMERCE |  | 74,814,406 | 0.75\% | \$ | 12,139 | 0.02\% | \$ | 224,528 | 0.30\% | \$ | 195 | 0.00\% |  |  | 0.00\% | \$ | 476,467 | 0.64\% | \$ | 74,101,077 | 99.05\% |
| Dept OF INSURANCE-GENERA |  | 13,002,959 | 0.13\% | \$ | 76,284 | 0.59\% | \$ | 480,994 | 3.70\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 28,107 | 0.22\% | \$ | 12,417,574 | 95.50\% |
| Dept OF INSURANCE-SPECIA | \$ | 2,834,161 | 0.03\% | \$ | 8,364 | 0.30\% | \$ | 109 | 0.00\% | \$ | 185,342 | 6.54\% |  |  | 0.00\% | \$ | 5,440 | 0.19\% | \$ | 2,634,906 | 92.97\% |
| Dept OF INSURANCE-TRUST | \$ | 378,531 | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 378,531 | 100.00\% |
| Dept OF JUSTICE |  | 68,144,132 | 0.69\% | \$ | 31,653 | 0.05\% | \$ | 865,446 | 1.27\% | \$ | 35,014 | 0.05\% |  |  | 0.00\% | \$ | 345,355 | 0.51\% | \$ | 66,866,664 | 98.13\% |
| Dept OF LABOR |  | 5,051,634 | 0.05\% | \$ | 381 | 0.01\% | \$ | 126,137 | 2.50\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 45,162 | 0.89\% | \$ | 4,879,953 | 96.60\% |
| Dept OF PUBLIC SAFETY | \$ | 1,649,864,633 | 16.58\% | \$ | 4,186,315 | 0.25\% | \$ | 8,758,257 | 0.53\% | \$ | 1,599,162 | 0.10\% | \$ | 292,532 | 0.02\% | \$ | 27,897,887 | 1.69\% |  | 1,607,130,480 | 97.41\% |
| Dept OF REVENUE | \$ | 50,120,338 | 0.50\% | \$ | 198,378 | 0.40\% | \$ | 2,371,349 | 4.73\% | \$ | 423,149 | 0.84\% |  |  | 0.00\% | \$ | 287,493 | 0.57\% | \$ | 46,839,970 | 93.46\% |
| Dept OF THE SECRETARY OF |  | 3,011,805 | 0.03\% | \$ | 12,596 | 0.42\% | \$ | 349,196 | 11.59\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 630,963 | 20.95\% | \$ | 2,019,051 | 67.04\% |
| DEPT OF ADMINISTRATION - OTHER |  | 91,852,580 | 0.92\% | \$ | 349,842 | 0.38\% |  |  | 0.00\% | \$ | 10,375 | 0.01\% |  |  | 0.00\% | \$ | 1,751,601 | 1.91\% | \$ | 89,740,762 | 97.70\% |
| DEPT OF NATURAL AND CULTURAL R |  | 109,049,187 | 1.10\% | \$ | 224,665 | 0.21\% | \$ | 1,027,963 | 0.94\% | \$ | 278,157 | 0.26\% | \$ | 76,751 | 0.07\% | \$ | 4,930,787 | 4.52\% | \$ | 102,510,863 | 94.00\% |
| DEPT. OF MILITARY \& VETERANS A |  | 17,835,266 | 0.18\% |  |  | 0.00\% | \$ | 6,361 | 0.04\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 112,354 | 0.63\% | \$ | 17,716,550 | 99.33\% |
| DEQ EXPENDABLE TRUST FUND |  | 2,769,568 | 0.03\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 2,769,568 | 100.00\% |
| DEQ-CAPITAL PROJECTS FUND |  | 62,715,981 | 0.63\% |  | 850,251 | 1.36\% |  |  | 0.00\% | \$ | 149,146 | 0.24\% | \$ | 69,021 | 0.11\% | \$ | 1,997,976 | 3.19\% | \$ | 59,649,587 | 95.11\% |
| DEQ-GENERAL FUND | \$ | 77,441,764 | 0.78\% | \$ | 190,303 | 0.25\% | \$ | 639,164 | 0.83\% | \$ | 3,628 | 0.00\% | \$ | 50 | 0.00\% | \$ | 1,154,149 | 1.49\% | \$ | 75,454,470 | 97.43\% |
| DEQ-NON-EXPENDABLE TRUST FUND |  | 6,540,579 | 0.07\% |  |  | 0.00\% | \$ | 5,859 | 0.09\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 6,634 | 0.10\% | \$ | 6,528,086 | 99.81\% |
| DEQ-SPECIAL FUND |  | 228,513,217 | 2.30\% | \$ | 30,598 | 0.01\% | \$ | 32,585 | 0.01\% | \$ | 23,752 | 0.01\% | \$ | 1,576,383 | 0.69\% | \$ | 8,390,232 | 3.67\% | \$ | 218,459,667 | 95.60\% |
| DHHS DIV OF FACILITY SVCS |  | 28,548,038 | 0.29\% |  |  | 0.00\% | \$ | 202,780 | 0.71\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 176,143 | 0.62\% | \$ | 28,169,115 | 98.67\% |
| DISABILITY DETERMINATION SERVI |  | 4,000,113 | 0.04\% | \$ | 28,938 | 0.72\% | \$ | 23,189 | 0.58\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 150,843 | 3.77\% | \$ | 3,797,143 | 94.93\% |
| DIT - GENERAL FUND |  | 6,124,203 | 0.06\% | \$ | 278,621 | 4.55\% | \$ | 209,419 | 3.42\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 5,636,163 | 92.03\% |
| DIT - INTERNAL SERVICE |  | 185,257,293 | 1.86\% | \$ | 674,106 | 0.36\% | \$ | 3,941,676 | 2.13\% |  |  | 0.00\% | \$ | 5,391 | 0.00\% | \$ | 33,267 | 0.02\% | \$ | 180,602,853 | 97.49\% |
| DIT - SPECIAL FUND | \$ | 24,807,807 | 0.25\% |  |  | 0.00\% | \$ | 526,986 | 2.12\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 8,640 | 0.03\% | \$ | 24,272,182 | 97.84\% |
| DIV OF HEALTH BENEFITS (PR. DM | \$ | 855,826,636 | 8.60\% | \$ | 1,478 | 0.00\% | \$ | 122,700 | 0.01\% | \$ | 1,491 | 0.00\% |  |  | 0.00\% | \$ | 641,591 | 0.07\% | \$ | 855,059,375 | 99.91\% |
| DIV OF MENTAL HEALTH/RETARDATI | \$ | 1,206,978,897 | 12.13\% | \$ | 1,819,253 | 0.15\% | \$ | 2,922,065 | 0.24\% | \$ | 22,351 | 0.00\% | \$ | 17,327 | 0.00\% | \$ | 14,493,882 | 1.20\% |  | 1,187,704,020 | 98.40\% |


| NC-State Agencies | Total |  |  | African-American |  |  | Asian-American |  |  | Hispanic-American |  |  | American Indian |  |  | Nonminority-Woman |  |  | Non-W/MBE |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | \$ | \% |  | \$ | \% |  | \$ | \% |  | \$ | \% |  | \$ | \% |  | \$ | \% |  | \$ | \% |
| DIV OF AGING \& ADULT SERV | \$ | 31,841,155 | 0.32\% |  |  | 0.00\% | \$ | 432 | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 9,487 | 0.03\% | \$ | 31,831,236 | 99.97\% |
| DIV OF CENTRAL ADMINISTRA | \$ | 858,362,606 | 8.63\% | \$ | 79,563 | 0.01\% |  | 10,997,640 | 1.28\% | \$ | 247,767 | 0.03\% | \$ | 17,298 | 0.00\% | \$ | 171,921 | 0.02\% | \$ | 846,848,417 | 98.66\% |
| DIV OF CHILD DEVELOPMENT | \$ | 19,008,647 | 0.19\% |  |  | 0.00\% | \$ | 49,145 | 0.26\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 15,396 | 0.08\% | \$ | 18,944,106 | 99.66\% |
| DIV OF HEALTH BENEFITS | \$ | 30,257,808 | 0.30\% |  |  | 0.00\% | \$ | 15,303 | 0.05\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 277,881 | 0.92\% | \$ | 29,964,625 | 99.03\% |
| DIV OF HEALTH SERVICES | \$ | 605,610,508 | 6.09\% | \$ | 210,708 | 0.03\% | \$ | 2,220,066 | 0.37\% | \$ | 29,120 | 0.00\% |  |  | 0.00\% | \$ | 933,052 | 0.15\% | \$ | 602,217,562 | 99.44\% |
| DIV OF SERVICES FOR THE B | \$ | 19,656,202 | 0.20\% | \$ | 599,515 | 3.05\% | \$ | 148,071 | 0.75\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 543,422 | 2.76\% | \$ | 18,365,194 | 93.43\% |
| DIV OF SOCIAL SERVICES | \$ | 29,849,416 | 0.30\% | \$ | 2,800 | 0.01\% | \$ | 155,831 | 0.52\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 285,679 | 0.96\% | \$ | 29,405,106 | 98.51\% |
| DIV OF VOCATIONAL REHABIL | \$ | 43,305,809 | 0.44\% | \$ | 739,566 | 1.71\% | \$ | 130,238 | 0.30\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 105,667 | 0.24\% | \$ | 42,330,338 | 97.75\% |
| DMH/DD/SAS TRUST \& AGENCY In | \$ | 85,325 | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 85,325 | 100.00\% |
| DMV | \$ | 86,539,431 | 0.87\% | \$ | 841,475 | 0.97\% | \$ | 403,197 | 0.47\% | \$ | 9,907 | 0.01\% | \$ | 244,780 | 0.28\% | \$ | 1,637,542 | 1.89\% | \$ | 83,402,530 | 96.38\% |
| DOACS TOBACCO TRUST FUND | \$ | 268,342 | 0.00\% |  |  | 0.00\% | \$ | 913 | 0.34\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 267,429 | 99.66\% |
| DOROTHEA DIX HOSPITAL | \$ | 2,059,173 | 0.02\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 20,535 | 1.00\% | \$ | 58,100 | 2.82\% | \$ | 1,980,538 | 96.18\% |
| DPI - GENERAL FUND | \$ | 158,916,397 | 1.60\% | \$ | 61,858 | 0.04\% | \$ | 5,956,220 | 3.75\% | \$ | 29,215 | 0.02\% |  |  | 0.00\% | \$ | 1,100,842 | 0.69\% | \$ | 151,768,261 | 95.50\% |
| DPI - INTERNAL SERVICE FUND | \$ | 173,805 | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 173,805 | 100.00\% |
| DPI - SPECIAL REVENUE | \$ | 110,409,306 | 1.11\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 110,409,306 | 100.00\% |
| DPI-CAPITAL PROJECTS | \$ | 7,706,698 | 0.08\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 6,200 | 0.08\% | \$ | 911,732 | 11.83\% | \$ | 6,788,766 | 88.09\% |
| GOVERNOR'S OFFICE - SPECIAL PR | \$ | 69,569 | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 64,280 | 92.40\% | \$ | 5,289 | 7.60\% |
| J IVERSON RIDDLE CENTER | \$ | 6,269,301 | 0.06\% |  |  | 0.00\% | \$ | 900 | 0.01\% |  |  | 0.00\% | \$ | 774,738 | 12.36\% | \$ | 1,703,037 | 27.16\% | \$ | 3,790,626 | 60.46\% |
| JOHN UMSTEAD HOSPITAL | \$ | 13,661,336 | 0.14\% |  |  | 0.00\% | \$ | 169,751 | 1.24\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 694,309 | 5.08\% | \$ | 12,797,276 | 93.68\% |
| JULIAN F KEITH ADATC | \$ | 642,892 | 0.01\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 34,200 | 5.32\% | \$ | 608,692 | 94.68\% |
| LONG LEAF NEURO-MEDICAL TREA | \$ | 2,766,083 | 0.03\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 2,766,083 | 100.00\% |
| MURDOCH CENTER | \$ | 2,047,813 | 0.02\% | \$ | 666 | 0.03\% | \$ | 16,130 | 0.79\% |  | 18,706 | 0.91\% |  |  | 0.00\% | \$ | 2,040 | 0.10\% | \$ | 2,010,271 | 98.17\% |
| N C STATE FAIR | \$ | 23,286,707 | 0.23\% | \$ | 1,821 | 0.01\% | \$ | 13,785 | 0.06\% | \$ | 41,435 | 0.18\% | \$ | 127,920 | 0.55\% | \$ | 2,917,455 | 12.53\% | \$ | 20,184,291 | 86.68\% |
| N. C. WILDLIFE RESOURCES COMM | \$ | 122,088,087 | 1.23\% | \$ | 227,098 | 0.19\% | \$ | 282,815 | 0.23\% | \$ | 960 | 0.00\% | \$ | 25,690 | 0.02\% | \$ | 7,683,286 | 6.29\% | \$ | 113,868,239 | 93.27\% |
| NC COMMUNITY COLLEGE SYSTEN | \$ | 17,466,230 | 0.18\% | \$ | 1,265 | 0.01\% | \$ | 374,331 | 2.14\% | \$ | 2,638 | 0.02\% |  |  | 0.00\% | \$ | 23,131 | 0.13\% | \$ | 17,064,865 | 97.70\% |
| NCDOT | \$ | 747,613,492 | 7.52\% | \$ | 4,588,679 | 0.61\% |  | 10,549,912 | 1.41\% |  | 2,535,628 | 0.34\% | \$ | 6,507 | 0.00\% | \$ | 9,704,469 | 1.30\% | \$ | 720,228,297 | 96.34\% |
| NC EDUCATION LOTTE | \$ | 30,644,943 | 0.31\% | \$ | 80,993 | 0.26\% | \$ | 11,309 | 0.04\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 78,463 | 0.26\% | \$ | 30,474,179 | 99.44\% |
| O'BERRY CENTER | \$ | 15,257,118 | 0.15\% |  |  | 0.00\% | \$ | 9,290 | 0.06\% |  |  | 0.00\% | \$ | 2,784 | 0.02\% | \$ | 125,960 | 0.83\% | \$ | 15,119,085 | 99.10\% |
| OFFICE OF ADMINISTRATIVE HEAR | \$ | 6,728,615 | 0.07\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 309 | 0.00\% |  |  | 0.00\% | \$ | 76 | 0.00\% | \$ | 6,728,230 | 99.99\% |
| OFFICE OF EDUCATION SERVICES | \$ | 1,157,302 | 0.01\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 115,877 | 10.01\% | \$ | 307 | 0.03\% | \$ | 1,041,117 | 89.96\% |
| OFFICE OF STATE BUDGET \& MAN | \$ | 8,301,935 | 0.08\% |  |  | 0.00\% | \$ | 14,092 | 0.17\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 8,287,843 | 99.83\% |
| OFFICE OF THE GOVERNOR | \$ | 4,598,015 | 0.05\% | \$ | 472 | 0.01\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 9,913 | 0.22\% | \$ | 4,587,630 | 99.77\% |
| OFFICE OF THE LT. GOVERNOR | \$ | 13,654 | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 13,654 | 100.00\% |
| OFFICE OF THE STATE AUDITOR | \$ | 6,726,466 | 0.07\% | \$ | 102,537 | 1.52\% | \$ | 3,628 | 0.05\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 478,092 | 7.11\% | \$ | 6,142,210 | 91.31\% |
| OSC - GENERAL FUND | \$ | 7,847,539 | 0.08\% |  |  | 0.00\% | \$ | 30,293 | 0.39\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 7,817,246 | 99.61\% |
| OSC SPECIAL FUND | \$ | 71,209,654 | 0.72\% |  |  | 0.00\% | \$ | 972 | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 71,208,682 | 100.00\% |
| RJ BLACKLEY, ADATC | \$ | 464,868 | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 171,560 | 36.91\% | \$ | 293,308 | 63.09\% |
| STATE BOARD OF ELECTIONS | \$ | 5,376,459 | 0.05\% | \$ | 294,428 | 5.48\% | \$ | 124,027 | 2.31\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 1,424,094 | 26.49\% | \$ | 3,533,910 | 65.73\% |
| STATE TREASURER ADMINISTRATI | \$ | 1,484,212,449 | 14.92\% | \$ | 31,609 | 0.00\% | \$ | 977,450 | 0.07\% |  | 207,193 | 0.01\% |  |  | 0.00\% | \$ | 100,586 | 0.01\% | \$ | 1,482,895,612 | 99.91\% |
| STATE TREASURER-TRANSFER TO | \$ | 305,000 | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 305,000 | 100.00\% |
| THE GENERAL ASSEMBLY | \$ | 25,018,086 | 0.25\% | \$ | 8,643 | 0.03\% | \$ | 243,272 | 0.97\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 37,105 | 0.15\% | \$ | 24,729,067 | 98.84\% |
| TREASURER-ESCHEATS | \$ | 29,605,662 | 0.30\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 29,605,662 | 100.00\% |
| UNC-NC SCHOOL OF SCIENCE \& M | \$ | 11,080,996 | 0.11\% | \$ | 7,951 | 0.07\% | \$ | 40,164 | 0.36\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 26,390 | 0.24\% | \$ | 11,006,491 | 99.33\% |
| WALTER B. JONES ADATC | \$ | 4,883,822 | 0.05\% |  |  | 0.00\% | \$ | 850 | 0.02\% |  |  | 0.00\% |  |  | 0.00\% | \$ | 175 | 0.00\% | \$ | 4,882,797 | 99.98\% |
| Total |  | 9,947,973,570 | 100.00\% |  | 21,561,453 | 0.22\% |  | 60,673,472 | 0.61\% |  | 6,066,438 | 0.06\% |  | 4,063,262 | 0.04\% |  | 106,581,586 | 1.07\% | \$ | 9,749,027,359 | 98.00\% |

## APPENDIX E DISPARITY ON PROJECTS LESS THAN \$500,000 AND LESS THAN \$1,000,000

## APPENDIX E: DISPARITY ON PROJECTS UNDER \$500,000 AND UNDER \$1,000,000

The tables in Appendix E (Tables E-1 through E-5) presents disparity ratios on North Carolina projects by year over the Study Period for projects under \$500,000 (Tables E-1 through E-5) and under \$1,000,000 (Tables E-6 through E-10). The only overutilization was for Asian Americans in Prime Other Services (Table E-4).

Table E-1
Disparity Results (<\$500,000), Relevant Market Area
Business Ownership Classification by Fiscal Year, Prime Construction
Using Payment Dollars, FY 2014-2018
North Carolina Disparity Study

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | $\begin{gathered} \text { Less than } \\ 80 \% \end{gathered}$ | Statistical Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | Black American | 0.30\% | 13.71\% | 2.21 | Underutilization | * |  |
|  | Asian American | 0.00\% | 1.03\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.00\% | 4.20\% | 0.00 | Underutilization | * |  |
|  | American Indian | 0.00\% | 2.09\% | 0.00 | Underutilization | * |  |
|  | TOTAL MBE | 0.30\% | 21.02\% | 1.44 | Underutilization | * |  |
|  | Nonminority Female | 6.04\% | 12.55\% | 48.14 | Underutilization | * |  |
|  | TOTAL M/WBE | 6.34\% | 33.57\% | 18.89 | Underutilization | * |  |
|  | Non-M/WBE | 93.66\% | 66.43\% | 140.99 | Overutilization |  |  |
| 2015 | Black American | 0.58\% | 13.71\% | 4.21 | Underutilization | * |  |
|  | Asian American | 0.02\% | 1.03\% | 1.93 | Underutilization | * |  |
|  | Hispanic American | 0.00\% | 4.20\% | 0.00 | Underutilization | * |  |
|  | American Indian | 0.05\% | 2.09\% | 2.33 | Underutilization | * |  |
|  | TOTAL MBE | 0.65\% | 21.02\% | 3.07 | Underutilization | * |  |
|  | Nonminority Female | 5.73\% | 12.55\% | 45.68 | Underutilization | * |  |
|  | TOTAL M/WBE | 6.38\% | 33.57\% | 18.99 | Underutilization | * |  |
|  | Non-M/WBE | 93.62\% | 66.43\% | 140.94 | Overutilization |  |  |
| 2016 | Black American | 0.30\% | 13.71\% | 2.16 | Underutilization | * |  |
|  | Asian American | 0.02\% | 1.03\% | 1.46 | Underutilization | * |  |
|  | Hispanic American | 0.58\% | 4.20\% | 13.84 | Underutilization | * |  |
|  | American Indian | 0.04\% | 2.09\% | 2.06 | Underutilization | * |  |
|  | TOTAL MBE | 0.94\% | 21.02\% | 4.45 | Underutilization | * |  |
|  | Nonminority Female | 2.64\% | 12.55\% | 21.05 | Underutilization | * |  |
|  | TOTAL M/WBE | 3.58\% | 33.57\% | 10.65 | Underutilization | * |  |
|  | Non-M/WBE | 96.42\% | 66.43\% | 145.15 | Overutilization |  |  |
| 2017 | Black American | 0.35\% | 13.71\% | 2.52 | Underutilization | * |  |
|  | Asian American | 0.00\% | 1.03\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.37\% | 4.20\% | 8.90 | Underutilization | * |  |
|  | American Indian | 0.66\% | 2.09\% | 31.56 | Underutilization | * |  |
|  | TOTAL MBE | 1.38\% | 21.02\% | 6.55 | Underutilization | * |  |
|  | Nonminority Female | 2.29\% | 12.55\% | 18.23 | Underutilization | * |  |
|  | TOTAL M/WBE | 3.67\% | 33.57\% | 10.92 | Underutilization | * |  |
|  | Non-M/WBE | 96.33\% | 66.43\% | 145.02 | Overutilization |  |  |
| 2018 | Black American | 1.43\% | 13.71\% | 10.46 | Underutilization | * |  |
|  | Asian American | 0.00\% | 1.03\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.45\% | 4.20\% | 10.74 | Underutilization | * |  |
|  | American Indian | 0.22\% | 2.09\% | 10.49 | Underutilization | * |  |
|  | TOTAL MBE | 2.10\% | 21.02\% | 10.01 | Underutilization | * |  |
|  | Nonminority Female | 8.11\% | 12.55\% | 64.67 | Underutilization | * |  |
|  | TOTAL M/WBE | 10.22\% | 33.57\% | 30.43 | Underutilization | * |  |
|  | Non-M/WBE | 89.78\% | 66.43\% | 135.16 | Overutilization |  |  |
| Total | Black American | 0.58\% | 13.71\% | 4.24 | Underutilization | * | p < 0.05 |
|  | Asian American | 0.01\% | 1.03\% | 0.64 | Underutilization | * | p < 0.05 |
|  | Hispanic American | 0.30\% | 4.20\% | 7.22 | Underutilization | * | p < 05 |
|  | American Indian | 0.23\% | 2.09\% | 10.96 | Underutilization | * | p < 0.05 |
|  | TOTAL MBE | 1.12\% | 21.02\% | 5.32 | Underutilization | * | p < 0.05 |
|  | Nonminority Female | 4.73\% | 12.55\% | 37.67 | Underutilization | * | p < 0.05 |
|  | TOTAL M/WBE | 5.85\% | 33.57\% | 17.41 | Underutilization | * | p <. 05 |
|  | Non-M/WBE | 94.15\% | 66.43\% | 141.74 | Overutilization |  |  |

Griffin \& Strong, P.C. 2020

Table E-2

## Disparity Results (<\$500,000), Relevant Market Area

Business Ownership Classification by Fiscal Year, Prime Architecture \& Engineering
Using Payment Dollars, FY 2014-2018
North Carolina Disparity Study

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | $\begin{gathered} \text { Less than } \\ 80 \% \end{gathered}$ | Statistical Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | Black American | 0.00\% | 9.17\% | 0.00 | Underutilization | * |  |
|  | Asian American | 0.01\% | 3.17\% | 0.19 | Underutilization | * |  |
|  | Hispanic American | 0.35\% | 3.50\% | 10.02 | Underutilization | * |  |
|  | American Indian | 0.27\% | 1.83\% | 14.52 | Underutilization | * |  |
|  | TOTAL MBE | 0.62\% | 17.67\% | 3.53 | Underutilization | * |  |
|  | Nonminority Female | 6.97\% | 13.83\% | 50.38 | Underutilization | * |  |
|  | TOTAL M/WBE | 7.59\% | 31.50\% | 24.10 | Underutilization | * |  |
|  | Non-M/WBE | 92.41\% | 68.50\% | 134.90 | Overutilization |  |  |
| 2015 | Black American | 0.00\% | 9.17\% | 0.00 | Underutilization | * |  |
|  | Asian American | 0.08\% | 3.17\% | 2.40 | Underutilization | * |  |
|  | Hispanic American | 0.34\% | 3.50\% | 9.69 | Underutilization | * |  |
|  | American Indian | 0.07\% | 1.83\% | 3.80 | Underutilization | * |  |
|  | TOTAL MBE | 0.48\% | 17.67\% | 2.74 | Underutilization | * |  |
|  | Nonminority Female | 7.51\% | 13.83\% | 54.28 | Underutilization | * |  |
|  | TOTAL M/WBE | 7.99\% | 31.50\% | 25.38 | Underutilization | * |  |
|  | Non-M/WBE | 92.01\% | 68.50\% | 134.32 | Overutilization |  |  |
| 2016 | Black American | 0.00\% | 9.17\% | 0.00 | Underutilization | * |  |
|  | Asian American | 0.00\% | 3.17\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.66\% | 3.50\% | 18.84 | Underutilization | * |  |
|  | American Indian | 0.04\% | 1.83\% | 2.24 | Underutilization | * |  |
|  | TOTAL MBE | 0.70\% | 17.67\% | 3.96 | Underutilization | * |  |
|  | Nonminority Female | 6.21\% | 13.83\% | 44.87 | Underutilization | * |  |
|  | TOTAL M/WBE | 6.91\% | 31.50\% | 21.93 | Underutilization | * |  |
|  | Non-M/WBE | 93.09\% | 68.50\% | 135.90 | Overutilization |  |  |
| 2017 | Black American | 0.00\% | 9.17\% | 0.00 | Underutilization | * |  |
|  | Asian American | 0.00\% | 3.17\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.34\% | 3.50\% | 9.78 | Underutilization | * |  |
|  | American Indian | 0.39\% | 1.83\% | 21.47 | Underutilization | * |  |
|  | TOTAL MBE | 0.74\% | 17.67\% | 4.17 | Underutilization | * |  |
|  | Nonminority Female | 10.60\% | 13.83\% | 76.63 | Underutilization | * |  |
|  | TOTAL M/WBE | 11.34\% | 31.50\% | 35.99 | Underutilization | * |  |
|  | Non-M/WBE | 88.66\% | 68.50\% | 129.44 | Overutilization |  |  |
| 2018 | Black American | 0.02\% | 9.17\% | 0.26 | Underutilization | * |  |
|  | Asian American | 0.00\% | 3.17\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.46\% | 3.50\% | 13.12 | Underutilization | * |  |
|  | American Indian | 0.34\% | 1.83\% | 18.33 | Underutilization | * |  |
|  | TOTAL MBE | 0.82\% | 17.67\% | 4.64 | Underutilization | * |  |
|  | Nonminority Female | 17.42\% | 13.83\% | 125.92 | Overutilization |  |  |
|  | TOTAL M/WBE | 18.24\% | 31.50\% | 57.90 | Underutilization | * |  |
|  | Non-M/WBE | 81.76\% | 68.50\% | 119.36 | Overutilization |  |  |
| Total | Black American | 0.01\% | 9.17\% | 0.06 | Underutilization | * | p < . 05 |
|  | Asian American | 0.02\% | 3.17\% | 0.49 | Underutilization | * | $p<.05$ |
|  | Hispanic American | 0.41\% | 3.50\% | 11.77 | Underutilization | * | p<.05 |
|  | American Indian | 0.24\% | 1.83\% | 13.25 | Underutilization | * | $p<.05$ |
|  | TOTAL MBE | 0.68\% | 17.67\% | 3.83 | Underutilization | * | p<. 05 |
|  | Nonminority Female | 10.09\% | 13.83\% | 72.92 | Underutilization | * | $p<.05$ |
|  | TOTAL M/WBE | 10.76\% | 31.50\% | 34.17 | Underutilization | * | p<. 05 |
|  | Non-M/WBE | 89.24\% | 68.50\% | 130.27 | Overutilization |  |  |

[^58]Table E-3

## Disparity Results (<\$500,000), Relevant Market Area

## Business Ownership Classification by Fiscal Year, Prime Professional Services

Using Payment Dollars, FY 2014-2018
North Carolina Disparity Study

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | $\begin{gathered} \text { Less than } \\ 80 \% \end{gathered}$ | Statistical Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | Black American | 0.19\% | 15.68\% | 1.22 | Underutilization | * |  |
|  | Asian American | 0.06\% | 2.29\% | 2.40 | Underutilization | * |  |
|  | Hispanic American | 0.07\% | 1.70\% | 3.93 | Underutilization | * |  |
|  | American Indian | 0.00\% | 1.24\% | 0.00 | Underutilization | * |  |
|  | TOTAL MBE | 0.31\% | 20.91\% | 1.49 | Underutilization | * |  |
|  | Nonminority Female | 3.35\% | 8.12\% | 41.28 | Underutilization | * |  |
|  | TOTAL M/WBE | 3.66\% | 29.02\% | 12.62 | Underutilization | * |  |
|  | Non-M/WBE | 96.34\% | 70.98\% | 135.73 | Overutilization |  |  |
| 2015 | Black American | 0.04\% | 15.68\% | 0.28 | Underutilization | * |  |
|  | Asian American | 0.06\% | 2.29\% | 2.48 | Underutilization | * |  |
|  | Hispanic American | 0.00\% | 1.70\% | 0.25 | Underutilization | * |  |
|  | American Indian | 0.00\% | 1.24\% | 0.00 | Underutilization | * |  |
|  | TOTAL MBE | 0.11\% | 20.91\% | 0.50 | Underutilization | * |  |
|  | Nonminority Female | 1.05\% | 8.12\% | 12.89 | Underutilization | * |  |
|  | TOTAL M/WBE | 1.15\% | 29.02\% | 3.97 | Underutilization | * |  |
|  | Non-M/WBE | 98.85\% | 70.98\% | 139.27 | Overutilization |  |  |
| 2016 | Black American | 0.01\% | 15.68\% | 0.03 | Underutilization | * |  |
|  | Asian American | 0.00\% | 2.29\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.00\% | 1.70\% | 0.00 | Underutilization | * |  |
|  | American Indian | 0.00\% | 1.24\% | 0.00 | Underutilization | * |  |
|  | TOTAL MBE | 0.01\% | 20.91\% | 0.02 | Underutilization | * |  |
|  | Nonminority Female | 0.84\% | 8.12\% | 10.39 | Underutilization | * |  |
|  | TOTAL M/WBE | 0.85\% | 29.02\% | 2.92 | Underutilization | * |  |
|  | Non-M/WBE | 99.15\% | 70.98\% | 139.70 | Overutilization |  |  |
| 2017 | Black American | 0.01\% | 15.68\% | 0.06 | Underutilization | * |  |
|  | Asian American | 0.03\% | 2.29\% | 1.10 | Underutilization | * |  |
|  | Hispanic American | 0.00\% | 1.70\% | 0.00 | Underutilization | * |  |
|  | American Indian | 0.00\% | 1.24\% | 0.00 | Underutilization | * |  |
|  | TOTAL MBE | 0.04\% | 20.91\% | 0.17 | Underutilization | * |  |
|  | Nonminority Female | 0.31\% | 8.12\% | 3.82 | Underutilization | * |  |
|  | TOTAL M/WBE | 0.35\% | 29.02\% | 1.19 | Underutilization | * |  |
|  | Non-M/WBE | 99.65\% | 70.98\% | 140.41 | Overutilization |  |  |
| 2018 | Black American | 0.01\% | 15.68\% | 0.08 | Underutilization | * |  |
|  | Asian American | 0.10\% | 2.29\% | 4.19 | Underutilization | * |  |
|  | Hispanic American | 0.21\% | 1.70\% | 12.46 | Underutilization | * |  |
|  | American Indian | 0.00\% | 1.24\% | 0.00 | Underutilization | * |  |
|  | TOTAL MBE | 0.32\% | 20.91\% | 1.53 | Underutilization | * |  |
|  | Nonminority Female | 1.90\% | 8.12\% | 23.38 | Underutilization | * |  |
|  | TOTAL M/WBE | 2.22\% | 29.02\% | 7.64 | Underutilization | * |  |
|  | Non-M/WBE | 97.78\% | 70.98\% | 137.77 | Overutilization |  |  |
| Total | Black American | 0.04\% | 15.68\% | 0.28 | Underutilization | * | p<. 05 |
|  | Asian American | 0.04\% | 2.29\% | 1.95 | Underutilization | * | p<. 05 |
|  | Hispanic American | 0.05\% | 1.70\% | 3.14 | Underutilization | * | p<. 05 |
|  | American Indian | 0.00\% | 1.24\% | 0.00 | Underutilization | * | $p<.05$ |
|  | TOTAL MBE | 0.14\% | 20.91\% | 0.68 | Underutilization | * | $p<.05$ |
|  | Nonminority Female | 1.36\% | 8.12\% | 16.77 | Underutilization | * | $\mathrm{p}<.05$ |
|  | TOTAL M/WBE | 1.50\% | 29.02\% | 5.18 | Underutilization | * | p<. 05 |
|  | Non-M/WBE | 98.50\% | 70.98\% | 138.78 | Overutilization |  |  |

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Table E-4

## Disparity Results (<\$500,000), Relevant Market Area

## Business Ownership Classification by Fiscal Year, Prime Other Services

Using Payment Dollars, FY 2014-2018

## North Carolina Disparity Study

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | Less than 80\% | Statistical <br> Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | Black American | 0.19\% | 6.85\% | 2.75 | Underutilization | * |  |
|  | Asian American | 0.29\% | 0.59\% | 49.69 | Underutilization | * |  |
|  | Hispanic American | 0.00\% | 0.71\% | 0.70 | Underutilization | * |  |
|  | American Indian | 0.00\% | 0.30\% | 0.45 | Underutilization | * |  |
|  | TOTAL MBE | 0.49\% | 8.44\% | 5.77 | Underutilization | * |  |
|  | Nonminority Female | 0.87\% | 3.85\% | 22.70 | Underutilization | * |  |
|  | TOTAL M/WBE | 1.36\% | 12.29\% | 11.07 | Underutilization | * |  |
|  | Non-M/WBE | 98.64\% | 87.71\% | 112.46 | Overutilization |  |  |
| 2015 | Black American | 0.34\% | 6.85\% | 4.89 | Underutilization | * |  |
|  | Asian American | 0.37\% | 0.59\% | 62.80 | Underutilization | * |  |
|  | Hispanic American | 0.00\% | 0.71\% | 0.30 | Underutilization | * |  |
|  | American Indian | 0.00\% | 0.30\% | 0.05 | Underutilization | * |  |
|  | TOTAL MBE | 0.71\% | 8.44\% | 8.38 | Underutilization | * |  |
|  | Nonminority Female | 0.82\% | 3.85\% | 21.33 | Underutilization | * |  |
|  | TOTAL M/WBE | 1.53\% | 12.29\% | 12.44 | Underutilization | * |  |
|  | Non-M/WBE | 98.47\% | 87.71\% | 112.27 | Overutilization |  |  |
| 2016 | Black American | 0.26\% | 6.85\% | 3.75 | Underutilization | * |  |
|  | Asian American | 0.51\% | 0.59\% | 87.33 | Underutilization |  |  |
|  | Hispanic American | 0.01\% | 0.71\% | 0.99 | Underutilization | * |  |
|  | American Indian | 0.00\% | 0.30\% | 0.09 | Underutilization | * |  |
|  | TOTAL MBE | 0.78\% | 8.44\% | 9.22 | Underutilization | * |  |
|  | Nonminority Female | 0.59\% | 3.85\% | 15.24 | Underutilization | * |  |
|  | TOTAL M/WBE | 1.36\% | 12.29\% | 11.10 | Underutilization | * |  |
|  | Non-M/WBE | 98.64\% | 87.71\% | 112.46 | Overutilization |  |  |
| 2017 | Black American | 0.21\% | 6.85\% | 3.04 | Underutilization | * |  |
|  | Asian American | 0.70\% | 0.59\% | 118.19 | Overutilization |  |  |
|  | Hispanic American | 0.01\% | 0.71\% | 1.08 | Underutilization | * |  |
|  | American Indian | 0.05\% | 0.30\% | 18.30 | Underutilization | * |  |
|  | TOTAL MBE | 0.97\% | 8.44\% | 11.45 | Underutilization | * |  |
|  | Nonminority Female | 0.59\% | 3.85\% | 15.26 | Underutilization | * |  |
|  | TOTAL M/WBE | 1.55\% | 12.29\% | 12.65 | Underutilization | * |  |
|  | Non-M/WBE | 98.45\% | 87.71\% | 112.24 | Overutilization |  |  |
| 2018 | Black American | 0.25\% | 6.85\% | 3.68 | Underutilization | * |  |
|  | Asian American | 1.04\% | 0.59\% | 177.18 | Overutilization |  |  |
|  | Hispanic American | 0.00\% | 0.71\% | 0.06 | Underutilization | * |  |
|  | American Indian | 0.02\% | 0.30\% | 5.37 | Underutilization | * |  |
|  | TOTAL MBE | 1.31\% | 8.44\% | 15.54 | Underutilization | * |  |
|  | Nonminority Female | 0.45\% | 3.85\% | 11.66 | Underutilization | * |  |
|  | TOTAL M/WBE | 1.76\% | 12.29\% | 14.33 | Underutilization | * |  |
|  | Non-M/WBE | 98.24\% | 87.71\% | 112.00 | Overutilization |  |  |
| Total | Black American | 0.25\% | 6.85\% | 3.58 | Underutilization | * | p<. 05 |
|  | Asian American | 0.64\% | 0.59\% | 109.22 | Overutilization |  |  |
|  | Hispanic American | 0.00\% | 0.71\% | 0.63 | Underutilization | * | $\mathrm{p}<.05$ |
|  | American Indian | 0.02\% | 0.30\% | 6.17 | Underutilization | * | p<. 05 |
|  | TOTAL MBE | 0.91\% | 8.44\% | 10.80 | Underutilization | * | $p<.05$ |
|  | Nonminority Female | 0.63\% | 3.85\% | 16.30 | Underutilization | * | p<. 05 |
|  | TOTAL M/WBE | 1.54\% | 12.29\% | 12.52 | Underutilization | * | p < 205 |
|  | Non-M/WBE | 98.46\% | 87.71\% | 112.26 | Overutilization |  |  |

[^59]Table E-5

## Disparity Results (<\$500,000), Relevant Market Area

## Business Ownership Classification by Fiscal Year, Prime Goods

Using Payment Dollars, FY 2014-2018
North Carolina Disparity Study

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | $\begin{aligned} & \text { Less than } \\ & 80 \% \end{aligned}$ | Statistical Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | Black American | 0.11\% | 2.99\% | 3.77 | Underutilization | * |  |
|  | Asian American | 1.12\% | 0.43\% | 261.31 | Overutilization |  |  |
|  | Hispanic American | 0.01\% | 0.68\% | 0.79 | Underutilization | * |  |
|  | American Indian | 0.00\% | 0.26\% | 1.12 | Underutilization | * |  |
|  | TOTAL MBE | 1.24\% | 4.35\% | 28.51 | Underutilization | * |  |
|  | Nonminority Female | 1.03\% | 3.58\% | 28.86 | Underutilization | * |  |
|  | TOTAL M/WBE | 2.27\% | 7.93\% | 28.66 | Underutilization | * |  |
|  | Non-M/WBE | 97.73\% | 92.07\% | 106.15 | Overutilization |  |  |
| 2015 | Black American | 0.10\% | 2.99\% | 3.20 | Underutilization | * |  |
|  | Asian American | 1.44\% | 0.43\% | 336.79 | Overutilization |  |  |
|  | Hispanic American | 0.02\% | 0.68\% | 3.00 | Underutilization | * |  |
|  | American Indian | 0.01\% | 0.26\% | 4.99 | Underutilization | * |  |
|  | TOTAL MBE | 1.57\% | 4.35\% | 36.11 | Underutilization | * |  |
|  | Nonminority Female | 0.85\% | 3.58\% | 23.81 | Underutilization | * |  |
|  | TOTAL M/WBE | 2.42\% | 7.93\% | 30.56 | Underutilization | * |  |
|  | Non-M/WBE | 97.58\% | 92.07\% | 105.98 | Overutilization |  |  |
| 2016 | Black American | 0.19\% | 2.99\% | 6.29 | Underutilization | * |  |
|  | Asian American | 0.54\% | 0.43\% | 125.15 | Overutilization |  |  |
|  | Hispanic American | 0.04\% | 0.68\% | 5.76 | Underutilization | * |  |
|  | American Indian | 0.01\% | 0.26\% | 5.76 | Underutilization | * |  |
|  | TOTAL MBE | 0.78\% | 4.35\% | 17.88 | Underutilization | * |  |
|  | Nonminority Female | 1.08\% | 3.58\% | 30.11 | Underutilization | * |  |
|  | TOTAL M/WBE | 1.86\% | 7.93\% | 23.40 | Underutilization | * |  |
|  | Non-M/WBE | 98.14\% | 92.07\% | 106.60 | Overutilization |  |  |
| 2017 | Black American | 0.07\% | 2.99\% | 2.41 | Underutilization | * |  |
|  | Asian American | 0.15\% | 0.43\% | 34.37 | Underutilization | * |  |
|  | Hispanic American | 0.04\% | 0.68\% | 5.85 | Underutilization | * |  |
|  | American Indian | 0.01\% | 0.26\% | 2.17 | Underutilization | * |  |
|  | TOTAL MBE | 0.26\% | 4.35\% | 6.08 | Underutilization | * |  |
|  | Nonminority Female | 0.49\% | 3.58\% | 13.58 | Underutilization | * |  |
|  | TOTAL M/WBE | 0.75\% | 7.93\% | 9.47 | Underutilization | * |  |
|  | Non-M/WBE | 99.25\% | 92.07\% | 107.80 | Overutilization |  |  |
| 2018 | Black American | 0.03\% | 2.99\% | 1.16 | Underutilization | * |  |
|  | Asian American | 0.02\% | 0.43\% | 5.74 | Underutilization | * |  |
|  | Hispanic American | 0.03\% | 0.68\% | 4.85 | Underutilization | * |  |
|  | American Indian | 0.00\% | 0.26\% | 1.67 | Underutilization | * |  |
|  | TOTAL MBE | 0.10\% | 4.35\% | 2.21 | Underutilization | * |  |
|  | Nonminority Female | 0.26\% | 3.58\% | 7.26 | Underutilization | * |  |
|  | TOTAL M/WBE | 0.36\% | 7.93\% | 4.49 | Underutilization | * |  |
|  | Non-M/WBE | 99.64\% | 92.07\% | 108.23 | Overutilization |  |  |
| Total | Black American | 0.07\% | 2.99\% | 2.44 | Underutilization | * | p<. 05 |
|  | Asian American | 0.37\% | 0.43\% | 86.63 | Underutilization |  |  |
|  | Hispanic American | 0.03\% | 0.68\% | 4.54 | Underutilization | * | p<. 05 |
|  | American Indian | 0.01\% | 0.26\% | 2.47 | Underutilization | * | Smal Number |
|  | TOTAL MBE | 0.48\% | 4.35\% | 11.06 | Underutilization | * | p < . 05 |
|  | Nonminority Female | 0.54\% | 3.58\% | 15.03 | Underutilization | * | p < . 05 |
|  | TOTAL M/WBE | 1.02\% | 7.93\% | 12.85 | Underutilization | * | p < . 05 |
|  | Non-M/WBE | 98.98\% | 92.07\% | 107.51 | Overutilization |  |  |

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Table E-6
Disparity Results (<\$1,000,000), Relevant Market Area
Business Ownership Classification by Fiscal Year, Prime Construction
Using Payment Dollars, FY 2014-2018
North Carolina Disparity Study

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | $\begin{aligned} & \text { Less than } \\ & 80 \% \end{aligned}$ | Statistical Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | Black American | 0.29\% | 13.71\% | 2.11 | Underutilization | * |  |
|  | Asian American | 0.00\% | 1.03\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.00\% | 4.20\% | 0.00 | Underutilization | * |  |
|  | American Indian | 0.00\% | 2.09\% | 0.00 | Underutilization | * |  |
|  | TOTAL MBE | 0.29\% | 21.02\% | 1.38 | Underutilization | * |  |
|  | Nonminority Female | 7.49\% | 12.55\% | 59.74 | Underutilization | * |  |
|  | TOTAL M/WBE | 7.78\% | 33.57\% | 23.19 | Underutilization | * |  |
|  | Non-M/WBE | 92.22\% | 66.43\% | 138.82 | Overutilization |  |  |
| 2015 | Black American | 0.87\% | 13.71\% | 6.38 | Underutilization | * |  |
|  | Asian American | 0.02\% | 1.03\% | 1.87 | Underutilization | * |  |
|  | Hispanic American | 0.00\% | 4.20\% | 0.00 | Underutilization | * |  |
|  | American Indian | 0.05\% | 2.09\% | 2.26 | Underutilization | * |  |
|  | TOTAL MBE | 0.94\% | 21.02\% | 4.47 | Underutilization | * |  |
|  | Nonminority Female | 5.64\% | 12.55\% | 44.98 | Underutilization | * |  |
|  | TOTAL M/WBE | 6.58\% | 33.57\% | 19.61 | Underutilization | * |  |
|  | Non-M/WBE | 93.42\% | 66.43\% | 140.63 | Overutilization |  |  |
| 2016 | Black American | 0.49\% | 13.71\% | 3.55 | Underutilization | * |  |
|  | Asian American | 0.01\% | 1.03\% | 1.42 | Underutilization | * |  |
|  | Hispanic American | 0.57\% | 4.20\% | 13.51 | Underutilization | * |  |
|  | American Indian | 0.04\% | 2.09\% | 2.02 | Underutilization | * |  |
|  | TOTAL MBE | 1.11\% | 21.02\% | 5.28 | Underutilization | * |  |
|  | Nonminority Female | 2.58\% | 12.55\% | 20.56 | Underutilization | * |  |
|  | TOTAL M/WBE | 3.69\% | 33.57\% | 10.99 | Underutilization | * |  |
|  | Non-M/WBE | 96.31\% | 66.43\% | 144.98 | Overutilization |  |  |
| 2017 | Black American | 0.34\% | 13.71\% | 2.51 | Underutilization | * |  |
|  | Asian American | 0.00\% | 1.03\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.37\% | 4.20\% | 8.86 | Underutilization | * |  |
|  | American Indian | 0.66\% | 2.09\% | 31.43 | Underutilization | * |  |
|  | TOTAL MBE | 1.37\% | 21.02\% | 6.53 | Underutilization | * |  |
|  | Nonminority Female | 2.28\% | 12.55\% | 18.16 | Underutilization | * |  |
|  | TOTAL M/WBE | 3.65\% | 33.57\% | 10.87 | Underutilization | * |  |
|  | Non-M/WBE | 96.35\% | 66.43\% | 145.04 | Overutilization |  |  |
| 2018 | Black American | 1.37\% | 13.71\% | 10.00 | Underutilization | * |  |
|  | Asian American | 0.00\% | 1.03\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.43\% | 4.20\% | 10.27 | Underutilization | * |  |
|  | American Indian | 0.21\% | 2.09\% | 10.03 | Underutilization | * |  |
|  | TOTAL MBE | 2.01\% | 21.02\% | 9.57 | Underutilization | * |  |
|  | Nonminority Female | 7.76\% | 12.55\% | 61.82 | Underutilization | * |  |
|  | TOTAL M/WBE | 9.77\% | 33.57\% | 29.09 | Underutilization | * |  |
|  | Non-M/WBE | 90.23\% | 66.43\% | 135.83 | Overutilization |  |  |
| Total | Black American | 0.66\% | 13.71\% | 4.82 | Underutilization | * | p < 205 |
|  | Asian American | 0.01\% | 1.03\% | 0.62 | Underutilization | * | p < 205 |
|  | Hispanic American | 0.29\% | 4.20\% | 7.02 | Underutilization | * | p < 205 |
|  | American Indian | 0.22\% | 2.09\% | 10.66 | Underutilization | * | p < 205 |
|  | TOTAL MBE | 1.18\% | 21.02\% | 5.64 | Underutilization | * | p < 205 |
|  | Nonminority Female | 4.90\% | 12.55\% | 39.09 | Underutilization | * | p < 205 |
|  | TOTAL M/WBE | 6.09\% | 33.57\% | 18.14 | Underutilization | * | p < 0.05 |
|  | Non-M/WBE | 93.91\% | 66.43\% | 141.37 | Overutilization |  |  |

[^60]Table E-7

## Disparity Results (<\$1,000,000), Relevant Market Area

Business Ownership Classification by Fiscal Year, Prime Architecture \& Engineering
Using Payment Dollars, FY 2014-2018
North Carolina Disparity Study

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | $\begin{gathered} \text { Less than } \\ 80 \% \end{gathered}$ | Statistical Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | Black American | 0.00\% | 9.17\% | 0.00 | Underutilization | * |  |
|  | Asian American | 0.01\% | 3.17\% | 0.16 | Underutilization | * |  |
|  | Hispanic American | 0.31\% | 3.50\% | 8.75 | Underutilization | * |  |
|  | American Indian | 0.23\% | 1.83\% | 12.67 | Underutilization | * |  |
|  | TOTAL MBE | 0.54\% | 17.67\% | 3.08 | Underutilization | * |  |
|  | Nonminority Female | 6.08\% | 13.83\% | 43.96 | Underutilization | * |  |
|  | TOTAL M/WBE | 6.63\% | 31.50\% | 21.03 | Underutilization | * |  |
|  | Non-M/WBE | 93.37\% | 68.50\% | 136.31 | Overutilization |  |  |
| 2015 | Black American | 0.00\% | 9.17\% | 0.00 | Underutilization | * |  |
|  | Asian American | 0.07\% | 3.17\% | 2.29 | Underutilization | * |  |
|  | Hispanic American | 0.32\% | 3.50\% | 9.27 | Underutilization | * |  |
|  | American Indian | 0.07\% | 1.83\% | 3.64 | Underutilization | * |  |
|  | TOTAL MBE | 0.46\% | 17.67\% | 2.63 | Underutilization | * |  |
|  | Nonminority Female | 7.19\% | 13.83\% | 51.95 | Underutilization | * |  |
|  | TOTAL M/WBE | 7.65\% | 31.50\% | 24.28 | Underutilization | * |  |
|  | Non-M/WBE | 92.35\% | 68.50\% | 134.82 | Overutilization |  |  |
| 2016 | Black American | 0.00\% | 9.17\% | 0.00 | Underutilization | * |  |
|  | Asian American | 0.00\% | 3.17\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.62\% | 3.50\% | 17.60 | Underutilization | * |  |
|  | American Indian | 0.04\% | 1.83\% | 2.10 | Underutilization | * |  |
|  | TOTAL MBE | 0.65\% | 17.67\% | 3.70 | Underutilization | * |  |
|  | Nonminority Female | 5.80\% | 13.83\% | 41.93 | Underutilization | * |  |
|  | TOTAL M/WBE | 6.46\% | 31.50\% | 20.49 | Underutilization | * |  |
|  | Non-M/WBE | 93.54\% | 68.50\% | 136.56 | Overutilization |  |  |
| 2017 | Black American | 0.00\% | 9.17\% | 0.00 | Underutilization | * |  |
|  | Asian American | 0.00\% | 3.17\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.33\% | 3.50\% | 9.37 | Underutilization | * |  |
|  | American Indian | 0.38\% | 1.83\% | 20.57 | Underutilization | * |  |
|  | TOTAL MBE | 0.71\% | 17.67\% | 3.99 | Underutilization | * |  |
|  | Nonminority Female | 10.16\% | 13.83\% | 73.42 | Underutilization | * |  |
|  | TOTAL M/WBE | 10.86\% | 31.50\% | 34.48 | Underutilization | * |  |
|  | Non-M/WBE | 89.14\% | 68.50\% | 130.13 | Overutilization |  |  |
| 2018 | Black American | 0.02\% | 9.17\% | 0.23 | Underutilization | * |  |
|  | Asian American | 0.00\% | 3.17\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.39\% | 3.50\% | 11.28 | Underutilization | * |  |
|  | American Indian | 0.29\% | 1.83\% | 15.75 | Underutilization | * |  |
|  | TOTAL MBE | 0.70\% | 17.67\% | 3.99 | Underutilization | * |  |
|  | Nonminority Female | 14.97\% | 13.83\% | 108.22 | Overutilization |  |  |
|  | TOTAL M/WBE | 15.67\% | 31.50\% | 49.76 | Underutilization | * |  |
|  | Non-M/WBE | 84.33\% | 68.50\% | 123.10 | Overutilization |  |  |
| Total | Black American | 0.00\% | 9.17\% | 0.05 | Underutilization | * | p<. 05 |
|  | Asian American | 0.01\% | 3.17\% | 0.44 | Underutilization | * | $p<.05$ |
|  | Hispanic American | 0.37\% | 3.50\% | 10.71 | Underutilization | * | p < . 05 |
|  | American Indian | 0.22\% | 1.83\% | 12.06 | Underutilization | * | p<. 05 |
|  | TOTAL MBE | 0.61\% | 17.67\% | 3.48 | Underutilization | * | p<. 05 |
|  | Nonminority Female | 9.17\% | 13.83\% | 66.32 | Underutilization | * | p<.05 |
|  | TOTAL M/WBE | 9.79\% | 31.50\% | 31.08 | Underutilization | * | $\mathrm{p}<.05$ |
|  | Non-M/WBE | 90.21\% | 68.50\% | 131.69 | Overutilization |  |  |

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Table E-8

## Disparity Results (<\$1,000,ooo), Relevant Market Area

## Business Ownership Classification by Fiscal Year, Prime Professional Services

Using Payment Dollars, FY 2014-2018
North Carolina Disparity Study

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | $\begin{aligned} & \text { Less than } \\ & 80 \% \end{aligned}$ | Statistical Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | Black American | 0.19\% | 15.68\% | 1.19 | Underutilization | * |  |
|  | Asian American | 0.05\% | 2.29\% | 2.34 | Underutilization | * |  |
|  | Hispanic American | 0.07\% | 1.70\% | 3.83 | Underutilization | * |  |
|  | American Indian | 0.00\% | 1.24\% | 0.00 | Underutilization | * |  |
|  | TOTAL MBE | 0.30\% | 20.91\% | 1.46 | Underutilization | * |  |
|  | Nonminority Female | 4.70\% | 8.12\% | 57.94 | Underutilization | * |  |
|  | TOTAL M/WBE | 5.01\% | 29.02\% | 17.25 | Underutilization | * |  |
|  | Non-M/WBE | 94.99\% | 70.98\% | 133.84 | Overutilization |  |  |
| 2015 | Black American | 0.04\% | 15.68\% | 0.27 | Underutilization | * |  |
|  | Asian American | 0.05\% | 2.29\% | 2.40 | Underutilization | * |  |
|  | Hispanic American | 0.00\% | 1.70\% | 0.24 | Underutilization | * |  |
|  | American Indian | 0.00\% | 1.24\% | 0.00 | Underutilization | * |  |
|  | TOTAL MBE | 0.10\% | 20.91\% | 0.49 | Underutilization | * |  |
|  | Nonminority Female | 1.48\% | 8.12\% | 18.20 | Underutilization | * |  |
|  | TOTAL M/WBE | 1.58\% | 29.02\% | 5.44 | Underutilization | * |  |
|  | Non-M/WBE | 98.42\% | 70.98\% | 138.67 | Overutilization |  |  |
| 2016 | Black American | 0.00\% | 15.68\% | 0.03 | Underutilization | * |  |
|  | Asian American | 0.00\% | 2.29\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.00\% | 1.70\% | 0.00 | Underutilization | * |  |
|  | American Indian | 0.00\% | 1.24\% | 0.00 | Underutilization | * |  |
|  | TOTAL MBE | 0.00\% | 20.91\% | 0.02 | Underutilization | * |  |
|  | Nonminority Female | 1.54\% | 8.12\% | 19.03 | Underutilization | * |  |
|  | TOTAL M/WBE | 1.55\% | 29.02\% | 5.34 | Underutilization | * |  |
|  | Non-M/WBE | 98.45\% | 70.98\% | 138.71 | Overutilization |  |  |
| 2017 | Black American | 0.01\% | 15.68\% | 0.06 | Underutilization | * |  |
|  | Asian American | 0.02\% | 2.29\% | 1.08 | Underutilization | * |  |
|  | Hispanic American | 0.00\% | 1.70\% | 0.00 | Underutilization | * |  |
|  | American Indian | 0.00\% | 1.24\% | 0.00 | Underutilization | * |  |
|  | TOTAL MBE | 0.03\% | 20.91\% | 0.16 | Underutilization | * |  |
|  | Nonminority Female | 0.40\% | 8.12\% | 4.89 | Underutilization | * |  |
|  | TOTAL M/WBE | 0.43\% | 29.02\% | 1.49 | Underutilization | * |  |
|  | Non-M/WBE | 99.57\% | 70.98\% | 140.28 | Overutilization |  |  |
| 2018 | Black American | 0.01\% | 15.68\% | 0.08 | Underutilization | * |  |
|  | Asian American | 0.09\% | 2.29\% | 4.08 | Underutilization | * |  |
|  | Hispanic American | 0.21\% | 1.70\% | 12.15 | Underutilization | * |  |
|  | American Indian | 0.00\% | 1.24\% | 0.00 | Underutilization | * |  |
|  | TOTAL MBE | 0.31\% | 20.91\% | 1.49 | Underutilization | * |  |
|  | Nonminority Female | 1.85\% | 8.12\% | 22.81 | Underutilization | * |  |
|  | TOTAL M/WBE | 2.16\% | 29.02\% | 7.45 | Underutilization | * |  |
|  | Non-M/WBE | 97.84\% | 70.98\% | 137.84 | Overutilization |  |  |
| Total | Black American | 0.04\% | 15.68\% | 0.27 | Underutilization | * | p<. 05 |
|  | Asian American | 0.04\% | 2.29\% | 1.89 | Underutilization | * | $p<.05$ |
|  | Hispanic American | 0.05\% | 1.70\% | 3.05 | Underutilization | * | p<. 05 |
|  | American Indian | 0.00\% | 1.24\% | 0.00 | Underutilization | * | $p<.05$ |
|  | TOTAL MBE | 0.14\% | 20.91\% | 0.66 | Underutilization | * | $p<.05$ |
|  | Nonminority Female | 1.82\% | 8.12\% | 22.46 | Underutilization | * | p<. 05 |
|  | TOTAL M/WBE | 1.96\% | 29.02\% | 6.75 | Underutilization | * | $\mathrm{p}<.05$ |
|  | Non-M/WBE | 98.04\% | 70.98\% | 138.13 | Overutilization |  |  |

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Table E-9

## Disparity Results (<\$1,000,000), Relevant Market Area

## Business Ownership Classification by Fiscal Year, Prime Other Services

Using Payment Dollars, FY 2014-2018
North Carolina Disparity Study

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | $\begin{gathered} \text { Less than } \\ 80 \% \end{gathered}$ | Statistical Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | Black American | 0.19\% | 6.85\% | 2.71 | Underutilization | * |  |
|  | Asian American | 0.29\% | 0.59\% | 49.05 | Underutilization | * |  |
|  | Hispanic American | 0.00\% | 0.71\% | 0.69 | Underutilization | * |  |
|  | American Indian | 0.00\% | 0.30\% | 0.44 | Underutilization | * |  |
|  | TOTAL MBE | 0.48\% | 8.44\% | 5.70 | Underutilization | * |  |
|  | Nonminority Female | 0.99\% | 3.85\% | 25.79 | Underutilization | * |  |
|  | TOTAL M/WBE | 1.47\% | 12.29\% | 11.99 | Underutilization | * |  |
|  | Non-M/WBE | 98.53\% | 87.71\% | 112.33 | Overutilization |  |  |
| 2015 | Black American | 0.37\% | 6.85\% | 5.36 | Underutilization | * |  |
|  | Asian American | 0.36\% | 0.59\% | 60.79 | Underutilization | * |  |
|  | Hispanic American | 0.00\% | 0.71\% | 0.29 | Underutilization | * |  |
|  | American Indian | 0.00\% | 0.30\% | 0.05 | Underutilization | * |  |
|  | TOTAL MBE | 0.73\% | 8.44\% | 8.61 | Underutilization | * |  |
|  | Nonminority Female | 1.10\% | 3.85\% | 28.53 | Underutilization | * |  |
|  | TOTAL M/WBE | 1.82\% | 12.29\% | 14.85 | Underutilization | * |  |
|  | Non-M/WBE | 98.18\% | 87.71\% | 111.93 | Overutilization |  |  |
| 2016 | Black American | 0.29\% | 6.85\% | 4.29 | Underutilization | * |  |
|  | Asian American | 0.57\% | 0.59\% | 97.59 | Underutilization |  |  |
|  | Hispanic American | 0.01\% | 0.71\% | 0.96 | Underutilization | * |  |
|  | American Indian | 0.00\% | 0.30\% | 0.09 | Underutilization | * |  |
|  | TOTAL MBE | 0.88\% | 8.44\% | 10.38 | Underutilization | * |  |
|  | Nonminority Female | 0.81\% | 3.85\% | 21.18 | Underutilization | * |  |
|  | TOTAL M/WBE | 1.69\% | 12.29\% | 13.76 | Underutilization | * |  |
|  | Non-M/WBE | 98.31\% | 87.71\% | 112.08 | Overutilization |  |  |
| 2017 | Black American | 0.21\% | 6.85\% | 3.11 | Underutilization | * |  |
|  | Asian American | 1.03\% | 0.59\% | 174.34 | Overutilization |  |  |
|  | Hispanic American | 0.01\% | 0.71\% | 1.06 | Underutilization | * |  |
|  | American Indian | 0.05\% | 0.30\% | 17.85 | Underutilization | * |  |
|  | TOTAL MBE | 1.30\% | 8.44\% | 15.41 | Underutilization | * |  |
|  | Nonminority Female | 0.74\% | 3.85\% | 19.22 | Underutilization | * |  |
|  | TOTAL M/WBE | 2.04\% | 12.29\% | 16.60 | Underutilization | * |  |
|  | Non-M/WBE | 97.96\% | 87.71\% | 111.69 | Overutilization |  |  |
| 2018 | Black American | 0.25\% | 6.85\% | 3.58 | Underutilization | * |  |
|  | Asian American | 1.41\% | 0.59\% | 239.63 | Overutilization |  |  |
|  | Hispanic American | 0.00\% | 0.71\% | 0.06 | Underutilization | * |  |
|  | American Indian | 0.02\% | 0.30\% | 5.23 | Underutilization | * |  |
|  | TOTAL MBE | 1.67\% | 8.44\% | 19.82 | Underutilization | * |  |
|  | Nonminority Female | 0.52\% | 3.85\% | 13.60 | Underutilization | * |  |
|  | TOTAL M/WBE | 2.20\% | 12.29\% | 17.87 | Underutilization | * |  |
|  | Non-M/WBE | 97.80\% | 87.71\% | 111.51 | Overutilization |  |  |
| Total | Black American | 0.26\% | 6.85\% | 3.75 | Underutilization | * | p<. 05 |
|  | Asian American | 0.83\% | 0.59\% | 141.33 | Overutilization |  |  |
|  | Hispanic American | 0.00\% | 0.71\% | 0.62 | Underutilization | * | p< 0.05 |
|  | American Indian | 0.02\% | 0.30\% | 6.01 | Underutilization | * | $p<.05$ |
|  | TOTAL MBE | 1.11\% | 8.44\% | 13.17 | Underutilization | * | $\mathrm{p}<.05$ |
|  | Nonminority Female | 0.79\% | 3.85\% | 20.49 | Underutilization | * | p<. 05 |
|  | TOTAL M/WBE | 1.90\% | 12.29\% | 15.46 | Underutilization | * | p< 205 |
|  | Non-M/WBE | 98.10\% | 87.71\% | 111.85 | Overutilization |  |  |

[^61]Table E-10

## Disparity Results (<\$500,000), Relevant Market Area

## Business Ownership Classification by Fiscal Year, Prime Goods

Using Payment Dollars, FY 2014-2018
North Carolina Disparity Study

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | $\begin{aligned} & \text { Less than } \\ & 80 \% \end{aligned}$ | Statistical Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | Black American | 0.11\% | 2.99\% | 3.53 | Underutilization | * |  |
|  | Asian American | 1.05\% | 0.43\% | 244.40 | Overutilization |  |  |
|  | Hispanic American | 0.01\% | 0.68\% | 0.74 | Underutilization | * |  |
|  | American Indian | 0.00\% | 0.26\% | 1.05 | Underutilization | * |  |
|  | TOTAL MBE | 1.16\% | 4.35\% | 26.66 | Underutilization | * |  |
|  | Nonminority Female | 1.15\% | 3.58\% | 32.00 | Underutilization | * |  |
|  | TOTAL M/WBE | 2.31\% | 7.93\% | 29.07 | Underutilization | * |  |
|  | Non-M/WBE | 97.69\% | 92.07\% | 106.11 | Overutilization |  |  |
| 2015 | Black American | 0.09\% | 2.99\% | 2.88 | Underutilization | * |  |
|  | Asian American | 1.96\% | 0.43\% | 457.81 | Overutilization |  |  |
|  | Hispanic American | 0.02\% | 0.68\% | 2.70 | Underutilization | * |  |
|  | American Indian | 0.01\% | 0.26\% | 4.50 | Underutilization | * |  |
|  | TOTAL MBE | 2.08\% | 4.35\% | 47.73 | Underutilization | * |  |
|  | Nonminority Female | 0.78\% | 3.58\% | 21.83 | Underutilization | * |  |
|  | TOTAL M/WBE | 2.86\% | 7.93\% | 36.03 | Underutilization | * |  |
|  | Non-M/WBE | 97.14\% | 92.07\% | 105.51 | Overutilization |  |  |
| 2016 | Black American | 0.18\% | 2.99\% | 5.88 | Underutilization | * |  |
|  | Asian American | 0.85\% | 0.43\% | 199.42 | Overutilization |  |  |
|  | Hispanic American | 0.04\% | 0.68\% | 5.39 | Underutilization | * |  |
|  | American Indian | 0.01\% | 0.26\% | 5.39 | Underutilization | * |  |
|  | TOTAL MBE | 1.08\% | 4.35\% | 24.82 | Underutilization | * |  |
|  | Nonminority Female | 1.01\% | 3.58\% | 28.13 | Underutilization | * |  |
|  | TOTAL M/WBE | 2.09\% | 7.93\% | 26.32 | Underutilization | * |  |
|  | Non-M/WBE | 97.91\% | 92.07\% | 106.35 | Overutilization |  |  |
| 2017 | Black American | 0.07\% | 2.99\% | 2.34 | Underutilization | * |  |
|  | Asian American | 0.18\% | 0.43\% | 42.01 | Underutilization | * |  |
|  | Hispanic American | 0.04\% | 0.68\% | 5.66 | Underutilization | * |  |
|  | American Indian | 0.01\% | 0.26\% | 2.10 | Underutilization | * |  |
|  | TOTAL MBE | 0.29\% | 4.35\% | 6.74 | Underutilization | * |  |
|  | Nonminority Female | 0.47\% | 3.58\% | 13.14 | Underutilization | * |  |
|  | TOTAL M/WBE | 0.76\% | 7.93\% | 9.63 | Underutilization | * |  |
|  | Non-M/WBE | 99.24\% | 92.07\% | 107.79 | Overutilization |  |  |
| 2018 | Black American | 0.03\% | 2.99\% | 1.14 | Underutilization | * |  |
|  | Asian American | 0.03\% | 0.43\% | 6.07 | Underutilization | * |  |
|  | Hispanic American | 0.03\% | 0.68\% | 4.77 | Underutilization | * |  |
|  | American Indian | 0.00\% | 0.26\% | 1.64 | Underutilization | * |  |
|  | TOTAL MBE | 0.10\% | 4.35\% | 2.22 | Underutilization | * |  |
|  | Nonminority Female | 0.26\% | 3.58\% | 7.14 | Underutilization | * |  |
|  | TOTAL M/WBE | 0.35\% | 7.93\% | 4.44 | Underutilization | * |  |
|  | Non-M/WBE | 99.65\% | 92.07\% | 108.24 | Overutilization |  |  |
| Total | Black American | 0.07\% | 2.99\% | 2.35 | Underutilization | * | p<. 05 |
|  | Asian American | 0.48\% | 0.43\% | 110.95 | Overutilization |  |  |
|  | Hispanic American | 0.03\% | 0.68\% | 4.36 | Underutilization | * | p < . 05 |
|  | American Indian | 0.01\% | 0.26\% | 2.37 | Underutilization | * | Smal Number |
|  | TOTAL MBE | 0.58\% | 4.35\% | 13.35 | Underutilization | * | p < . 05 |
|  | Nonminority Female | 0.54\% | 3.58\% | 15.03 | Underutilization | * | p < . 05 |
|  | TOTAL M/WBE | 1.12\% | 7.93\% | 14.11 | Underutilization | * | p<. 05 |
|  | Non-M/WBE | 98.88\% | 92.07\% | 107.40 | Overutilization |  |  |

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# APPENDIX F NORTH CAROLINA HUB COORDINATORS' SURVEY REPORT 

## APPENDIX F: NORTH CAROLINA HUB COORDINATORS SURVEY

## 1. METHODOLOGY

The survey of North Carolina HUB coordinators gathered information on the North Carolina construction contracting and procurement process and HUB program during the study period. The web survey was posted during the months of August through September 2019. The State HUB Office provided a list of HUB coordinators. Respondents included HUB coordinators, HUB liaisons, dedicated HUB staff, and HUB advocates who may also be purchasing staff or have other responsibilities.

This web survey received 79 completed surveys. Throughout this chapter several charts detail selected survey results. Respondent comments are also included, with minor edits (periods, capitalization, etc.). See Appendix X for the complete results for this survey and as well as the questionnaire.

## 2. RESPONDENT CHARACTERISTICS

Table F-1 below provides the agency of the respondents that participated in the survey. About $74.7 \%$ of respondents were from agencies covered by the 2020 North Carolina disparity study, with the most being from community colleges.

## Table F-1

## North Carolina Survey of HUB Coordinators

## Responses by Agency

| Agency | Responses |  |
| :--- | :---: | :---: |
|  | Percent | Number |
| A State of North Carolina Agency | $11.39 \%$ | 9 |
| A State of North Carolina University | $12.66 \%$ | 10 |
| A State of North Carolina Community College | $50.63 \%$ | 40 |
| A Local Government Agency in the State of North Carolina (City or County) | $12.66 \%$ | 10 |
| Other (please specify) | $12.66 \%$ | 10 |

Source: North Carolina HUB Coordinator Web Survey, 2019.
The other survey respondents listed themselves as follows:

1. Private Construction Firm
2. Corporation
3. Privately-owned, non-HUB Construction Manager doing business for agencies listed above
4. Corporation
5. K-12 School System
6. Construction Manager
7. Private corporation
8. K-12 Education
9. Construction company
10. Airport Authority

Of the survey respondents less than 42 percent were full-time (Figure 1) and over $67 \%$ split their HUB duties with other responsibilities (Figure 2).

## Figure 1

 Are You a Full-Time HUB Coordinator?Source: North Carolina HUB Coordinator Web Survey, 2019.


Source: North Carolina HUB Coordinator Web Survey, 2019.

Most HUB coordinators were housed in Purchasing (31.4\%), followed by equal amounts in Capital Construction and Finance ( $16.4 \%$ ), although the second largest percentage of HUB coordinators were housing in "Other" (Figure 3). Other was a broad category, with many different organizational locations.


Source: North Carolina HUB Coordinator Web Survey, 2019.

The departments listed in "Other" were as follows:

1. Administrative Services
2. Business Inclusion \& Advancement
3. Cabinet Agency
4. Central Office Administration - under Superintendent
5. City Manager's Office
6. Construction, Purchasing, and Finance
7. DOA Advocacy
8. Eqp Coord \& CPC
9. Equity \& Inclusion Department
10. Housing \& Neighborhoods
11. Housing and Neighborhoods
12. HUB Office
13. Business Office
14. Legal
15. Legal/HR
16. NCDOT Office of Civil Rights
17. Physical Plant
18. Stand Alone Division
19. Technology ${ }^{1}$

## 3. BARRIERS TO HUB PARTICIPATION

Table F-2 below shows which aspects of procurement that respondents either agreed or strongly agreed were barriers to HUB participation. The largest percentage of respondents reported contract size (50.0\%), use of state contracts ( $46.67 \%$ ) and limited knowledge of policies and procedures ( $41.56 \%$ ) as barriers. The

[^62]smallest percentages of respondents reported Design Build (15.79\%), Construction Manager at Risk (13.16\%), and HUB goal setting ( $9.33 \%$ ) as barriers.

Table F-2
Barriers to HUB Participation

| Potential Barriers | Strongly Agree | Agree | Total |
| :--- | :---: | :---: | :---: |
| Contract Size? | $11.84 \%$ | $38.16 \%$ | $50.00 \%$ |
| Use of State Term Contracts? | $12.00 \%$ | $34.67 \%$ | $46.67 \%$ |
| Limited Knowledge of Purchasing Policies or Procedures? | $11.69 \%$ | $29.87 \%$ | $41.56 \%$ |
| Performance Bond Requirements? | $12.99 \%$ | $27.27 \%$ | $40.26 \%$ |
| Pre-Qualification Requirements? | $9.09 \%$ | $29.87 \%$ | $38.96 \%$ |
| Insurance Requirements? | $13.16 \%$ | $25.00 \%$ | $38.16 \%$ |
| Company Financing Needs? | $13.16 \%$ | $21.05 \%$ | $34.21 \%$ |
| Renewals of Annual Contracts (without bid)? | $9.33 \%$ | $22.67 \%$ | $32.00 \%$ |
| Use of Sole Source Procurement? | $5.26 \%$ | $26.32 \%$ | $31.58 \%$ |
| HUB Certification Requirements? | $1.32 \%$ | $28.95 \%$ | $30.27 \%$ |
| Limited Time to Prepare Bids or Quotes? | $6.49 \%$ | $22.08 \%$ | $28.57 \%$ |
| Use of Emergency Procurement? | $5.41 \%$ | $22.97 \%$ | $28.38 \%$ |
| Favoritism in the Selection/Evaluation process? | $9.46 \%$ | $18.92 \%$ | $28.38 \%$ |
| Use of Cooperative Purchase Agreements? | $4.05 \%$ | $24.32 \%$ | $28.37 \%$ |
| Limited Information Received on Pending Projects? | $7.79 \%$ | $15.58 \%$ | $23.37 \%$ |
| Ignoring HUB Plan Submission Requirements? | $6.67 \%$ | $16.00 \%$ | $22.67 \%$ |
| Use of Blanket contracts? | $4.11 \%$ | $13.70 \%$ | $17.81 \%$ |
| Exclusionary Specifications? | $1.35 \%$ | $14.86 \%$ | $16.21 \%$ |
| Good Faith Efforts Process? | $2.70 \%$ | $13.51 \%$ | $\mathbf{1 6 . 2 1 \%}$ |
| Use of Design-Build Procurement in Construction? | $0.00 \%$ | $15.79 \%$ | $\mathbf{1 5 . 7 9 \%}$ |
| Use of Construction Manager At Risk? | $1.32 \%$ | $11.84 \%$ | $13.16 \%$ |
| HUB Goal Setting Process? | $1.33 \%$ | $8.00 \%$ | $9.33 \%$ |

Source: North Carolina HUB Coordinator Web Survey, 2019.

Table F-3 below shows which aspects of procurement that respondents either agreed or strongly agreed were barriers to HUB contract performance. The highest percentages of respondents felt that payment by prime contractor to HUB subcontractors ( $32.39 \%$ ) was a barrier.

## Table F-3

## Barriers to HUB Contract Performance

| Barriers to Contract Performance | Strongly <br> Agree | Agree | Total |
| :--- | ---: | ---: | :---: |
| Delay in Payment by the Prime to HUB subcontractors? | $7.04 \%$ | $25.35 \%$ | $32.39 \%$ |
| Over inspection of HUB Vendors by Agency/Government staff? | $5.71 \%$ | $21.43 \%$ | $27.14 \%$ |
| Delay in Payment by Your Agency to Prime Contractors? | $5.63 \%$ | $11.27 \%$ | $\mathbf{1 6 . 9 0 \%}$ |

Source: North Carolina HUB Coordinator Web Survey, 2019.

Other comments on barriers to contract performance were:

1. "I agree that delay of payment from public agency to CM can be a barrier to HUB success."
2. "Poor performance by MWBE contractors."
3. "Time and their own labor force or other projects that they may have at the same time."
4. "Lack of competence, expertise or resources to be successful (in over their head)."

## 4. HUB PROGRAM

Several survey questions were asked about HUB program features. Figure 4 below show that $64.5 \%$ of respondents had HUB goals in their construction contracting and procurement process.


Source: North Carolina HUB Coordinator Web Survey, 2019.

Of the respondents that answered the question affirmatively about having HUB goals twenty-four responded their goal was $10 \%$, or at least $10 \%$. Other responses were:

1. "Goods - MBE $3 \%$; WBE $3 \%$; SBE $5 \%$; MWSBE $11 \%$."
2. "Supplies and Materials, $2 \%$ MBE and $2 \%$ WBE."
3. " $20 \%$ Aspirational Goal; Client Mandates goals per project."
4. " $20 \%$ of all projects (public \& private)."
5. "A/E - MBE 4\%; WBE 7\%; SBE 5\%; MWSBE 16\%."
6. "Construction - MBE $10 \%$; WBE 6\%; SBE 5\%; MWSBE 21\%"
7. "Current State HUB requirements always followed."
8. "Department strategic plan is prepared annually and forwarded to Hub Office."
9. "Depending on the type of project-10\% HUB goal."
10. "Goals are $10 \%$ hard to achieve when there are not HUB vendors in the commodity groups we often need for purchases."
11. "Goals set in Executive Order \#106."
12. "HUB vendors are sort 1st."
13. "Minority $=2 \%$, Women $=4 \%$."
14. "Recommend HUB vendors."
15. "Services - MBE 5\%; WBE 4\%; SBE $5 \%$; MWSBE $14 \%$."
16. "Services (including professional), $4 \% \mathrm{MBE}$ and $2 \% \mathrm{WBE} "$
17. "Staff are asked to seek HUB vendors when making purchases if State Term Contracts are not applicable to purchases."
18. "State set goals."
19. "The Authority applies Minority and Women-Owned Small Business (MWSB) goals on all procurements."
20. "They certainly are applied for the very few construction projects we participate in.
21. "To always use as many HUB-MWBE's when purchasing."
22. "To purchase from a HUB vendor when possible. i.e. if 2 vendors are close in price and it is not on state contract, I will go with the HUB vendor."
23. "To use HUB vendors for any and all purchases that a HUB vendor is available as the supplier."
24. "To use HUB Vendors when they have competitive pricing."
25. "Total All Purchases our goal is $10 \%$ or more from HUB purchases."
26. "Utilizes when HUB vendors are applicable but due to our rural location it is difficult."
27. "We attempt to obtain HUB purchases when fiscally feasible to do so."
28. "We have a $10 \%$ HUB participation goal and we try to meet that goal."
29. "We try to seek out HUB vendors when contracts allow but many of the state contracts are not with HUB vendors."
30. "When seeking informal quotes, sending the request to at least 1 HUB Vendor. We strive to achieve the $10 \%$ goal set by NCGS."
31. "Whenever possible we try to purchase from disadvantaged businesses."

Note that there were several entities with HUB goals above $10 \%$ and some below $10 \%$ in these comments.
The following issues were reported in response to the question:" Please describe any issues you may have encountered in attempting to enforce the State of North Carolina's rules on Good Faith Efforts (50 Point System)."

1. "Very easy to achieve but practitioners are unsure about how to enforce."
2. "The most critical issue is that there are no clear and enforced consequences for firms not demonstrating real good faith efforts."
3. "No documentation reporting contacts made. No penalty."
4. "Location of rural college."
5. "The Affidavit where they can say that they are performing all work with their own workforce. Not participating in minority organizations. Not being enough qualified Hub firms to do the work that actually counts to a big chunk of the contract amount."
6. "Misunderstanding about how to complete forms, that HUB primes have to do GFEs and not put themselves on the forms. Making sure apparent low bidder gives good documentation. Getting list of ALL subcontractors the bid winner will use within 30 days (no standard form for that). Bidders not held to using the minority vendors identified when bid submitted, what is the point of the Identification of HUB Certified / Minority Business Participation. Inconsistent use of how / when Affidavit B (self-performing is allowed), form seems to say that the self-performer might be able to use suppliers. Can a self-performer use suppliers or not? If not, remove that language from Affidavit B."
7. "The biggest challenge is being able to locate the licensed or already $\mathrm{M} / \mathrm{WBE}$ certified vendors for a particular work category."
8. "Prime does not notify subs within the 10 days. Prime checks things they did not do. i.e. attend pre-bid conference."
9. "Not a part of my duties."
10. "A weak outdated organizational policy without an executed Disparity Study to provide evidence for a program."
11. "Primes use the self-perform form as a way out."
12. "Often smaller vendors do not understand the process."
13. "Also is very confusing when a vendor is a minority or HUB firm and using the GFE forms. There needs to be training or a list of when and how to use the GFE forms for everyone. "
14. "1st tier firms saying that after they do a search in the HUB database, they found no capable firms. Basically, they decide based on what they find in the database, whether a firm is capable or not."
15. "We have special legislation that allows us to have a 180 point system instead of the 50 point system."
16. "Periodic delays in receiving documentation from bidders."
17. "GFE are vague and do not require a real effort. Firms can gain points with an email and an ad in the paper. At a min, should revise option one to eliminate "firms contractor knows." Everyone should be mandated to use HUB directory. Need firm guidance on Aff B to include supplies and materials so these firms are included as a part of good faith."
18. "Only serve in a non-voting role."
19. "They need to be revised to reflect reality."
20. "The Authority does not use this system."
21. "We operate in a very rural area therefore there are a limited number of HUB vendors available."
22. "When contracts are in rural areas it is always hard to find contractors."
23. "Projects that have very few trades involved or projects that are primarily (but not entirely selfperformed). Projects that involve mechanical, electrical or plumbing firms as the lead (their not as strong as traditional GC's with Good Faith Efforts)."
24. "Have not had any issues in obtaining GFEs."
25. "Many firms check boxes for the point and have a challenge in provide supporting documentation of Good Faith Efforts checked."
26. "Not many HUB certified vendors in our area."
27. "Lack of response from HUB vendors on the goods/services needed."
28. "Lack of HUB vendors for the commodities needed by niche programs."
29. "Small project -Contractors not familiar with the process."
30. The current construction market is difficult to get bids. We have found it extremely difficult to get bids from HUB vendors because they are already working on other projects."
31. "Staff knowledge in looking for HUB vendors."

Ten said there were no issue and seven said it was NA.
Figure 5 below shows percent of respondents tracking HUB utilization data. Almost 13 percent of survey respondents did not track HUB spending.


Source: North Carolina HUB Coordinator Web Survey, 2019.

A greater percentage of respondents said they reported HUB spending (Figure 6) than tracked HUB spending, reflecting some confusion on the meaning of the questions.


Source: North Carolina HUB Coordinator Web Survey, 2019.
Table F- 4 below shows business assistance services available either often or very often to HUBs. The most assistance was for pre bid conferences (83.11\%), outreach (57.70\%) and information on small and informal bid opportunities (49.35\%). The least assistance was for vendor rotation (17.33\%), insurance (9.21\%) and bonding assistance (6.67\%).

Table F-4

## Business Assistance Services

| Business Assistance | Very Often | Often | Total |
| :--- | :---: | :---: | :---: |
| Pre-Bid Conferences? | $48.05 \%$ | $35.06 \%$ | $83.11 \%$ |
| Outreach to HUB Firms about Upcoming Procurement? | $23.08 \%$ | $34.62 \%$ | $57.70 \%$ |
| Provided Information on Small or Informal Contract Opportunities? | $18.18 \%$ | $31.17 \%$ | $49.35 \%$ |
| Bid Debriefing? | $18.42 \%$ | $21.05 \%$ | $39.47 \%$ |
| Technical Assistance/Training Programming? | $10.53 \%$ | $26.32 \%$ | $36.85 \%$ |
| Encouraged Teaming Arrangements (Mentor-Protege or Joint |  |  |  |
| Ventures involving HUBs)? | $6.49 \%$ | $20.78 \%$ | $27.27 \%$ |
| Unbundling Contracts? | $3.90 \%$ | $22.08 \%$ | $25.98 \%$ |
| Contract Forecasting? | $5.19 \%$ | $20.78 \%$ | $25.97 \%$ |
| Vendor Rotation? | $1.33 \%$ | $16.00 \%$ | $17.33 \%$ |
| Insurance Assistance? | $0.00 \%$ | $9.21 \%$ | $9.21 \%$ |
| Bonding Assistance? | $0.00 \%$ | $6.67 \%$ | $6.67 \%$ |

Source: North Carolina HUB Coordinator Web Survey, 2019.

## 5. SUGGESTIONS FROM HUB COORDINATORS

Respondents provided the following answers to the question: "Are there any policies that you would like to implement that you believe would assist you in your role as HUB Coordinator that are not allowed by the State of North Carolina?"

1. "Stronger procurement guidelines."
2. "I would like to see the State of North Carolina implement bid preference for HUB certified firms (and primes who procure at least $10 \%$ of their goods and services on a project from HUB certified firms) whereby those certified HUB firms and their prime partners could be selected over the low bidder as long as their bid responsive, responsible and was within a prescribed percentage of the project budget."
3. "Allow best value bidding for $\mathrm{CM} @$ risk contracts."
4. "Reciprocity for certifications such as Disability-IN with executive order 92, NGLCC, USPAACC. Currently provide reciprocity for states that don't recognize NC HUB certification. VA, GA, TN, SC
5. "Less flexibility in rejecting bids without GFE documentation. If GFE Affidavits are not present, require that the bid be rejected. Define what constitutes a "building project" and a building in statute. Is it just vertical construction, would greenway work, sidewalks, light pole placement / replacement require GFEs? Simplify what dollar values are formal or informal, perhaps matching the bidding / contracting levels. Simplify who has to report and have consistent reporting frequency in statute for all public entities."
6. "It would be helpful to be able to set a goal via a formula that accurately demonstrates the availability of HUB Certified firms in any given trade area on a project. A $10 \%$ "goal" for a multimillion dollar project is not adequate to effectively promote minority participation and economic/business growth. The same could be done for products and services."
7. "Yes, I would like to be able to report DBE participation on all projects. The State HUB program does not allow for NCDOT certified DBE's information to be reported and counted toward participation, but they have a reciprocity program. "
8. "To make the $10 \%$ goal mandatory and to have Good Faith Efforts reported on Goods and Services
9. "Good Faith efforts for goods and services."
10. "A more user friendly database and tool for finding HUB vendors."
11. "An internal system for easier and accurate HUB reporting."
12. "Unbundling of contracts when feasible."
13. "Eliminate giving contracts to friends give vendors an opportunity."
14. "HUB office to obtain a forecast of projects before being entered into IPS."
15. "Each cabinet agency have a dedicated resource for HUB outreach. At least a resource that is training the procurement staff and supporting HUB initiatives."
16. "The HUB office being a direct report to the Secretary for more support and influence
17. "budget constraints limit staffing."
18. "See \#13 Also, firms should have to substantiate assistance (i.e.: bonding) not just offering in a letter, to receive GFE points. There needs to be detailed guidance on how these GFE's should be reviewed and evaluated for points so firms and owners are all on the same page. When local governments try to be more stringent, the law does not support us and attorneys are hesitant to defend."
19. "Consistent enforcement of the statutes across all levels."
20. "Subcontractors on single prime bids should be required to submit the same affidavits as the prime contractors."
21. "Make more HUB vendors part of the mandatory State-term contracts."
22. "no there are too many policies now that cause the cost of projects to be higher due to trying to obtain HUB participation."
23. "Yes...minority or small business "set asides" would guarantee that HUB/small businesses obtain work, e.g. only allow minority firms to bid on certain projects. Also, relax or change the bid laws that require every single-prime and CMR first-tier subcontract to be awarded to the lowest, responsible bidder, e.g. allowing CM's and Design-builders to select their subcontractors without competitive bidding could guarantee HUB participation."
24. "More internal and external support from top management, UNC System and HUB Office. Granted authority and decision-making opportunities to enforce new laws and laws currently on the books."
25. "No-However, there are policies that have gray areas and should be clarified and/or stated on required HUB documents."
26. "Similar to Executive Order 50 where a NC resident bidder has a price matching opportunity if their bid is within $5 \%$ of the out of state bidder (Non-IT goods only)...perhaps a similar Executive Order could be implemented for NC Certified HUB Vendors."

Ten responded with No suggestions and eight responded NA (not applicable).

Respondents provided the following answers to the question: "Do you have any additional comments or guidance that you wish to provide that would be helpful to this study?"

1. "I would like to see stronger language for HUB participation for goods and services that includes 2nd tier spend."
2. "I am not a public HUB Coordinator, but I represent UMCNC. Most of these questions, seem to pertain to public HUB Coordinators, but I'd be happy to speak in greater detail with G\&S from the perspective of a private diversity program administrator."
3. "HUB reporting on Capital Construction projects through the State InterScope system is cumbersome and not very user friendly. Would like to see this reporting done separately outside the InterScope system. Also, training is need on HUB reporting and data collection for P-card purchases."
4. "Provide information on other bids and not focus on just construction."
5. "Migrate HUBSCO users to InterScope+ so there is one system."
6. "Vendors who have attempted to register as HUB vendor have told me the certification process is a barrier to registering."
7. "I would like to see a better pre-qualification process for the HUB subcontractors, and a required goal for goods and services."
8. "Appreciative for this long awaited disparity study. Looking forward to the recommendations and changes."
9. "What would be very beneficial would be project goals being set based on project type and/or scope. Across the board goals do not always work, as some projects do not lend themselves to huge goals. This may incentivize some 1st tier firms to also be more inclined to be a part of "passthrus" and other type of HUB fraud."
10. "Office of Civil Rights should be taken out of NCDOT and combined with HUB Office with full budget to provide oversight and technical assistance to State Government."
11. "The HUB Database needs to be updated. Currently it is difficult to determine what a HUB actually does. There should be separation between construction and goods and services."
12. "The Authority does not operate a HUB program. The Authority operates the Federal DBE program and Authority's MWSB program which is modeled after the Federal program. There are aspects of the DBE program from which the HUB program may benefit, including removing the "good faith effort" checklist in favor of a "preponderance of the evidence" approach and the inclusion of business size as a criterion for certification."
13. "Trying to obtain HUB participation but also the best competitive vendor who will also perform well is sometimes counterproductive causing more time to be spent as well as cost to be escalated.
14. "Have a budget, be able to attend conferences and training pertaining to our role as Supplier." Diversity Professionals. Have an assistant or two, if and when needed."
15. "HUB Data reported on Formal Projects in Interscope is not being captured since it is not submitted at completion of project but at SCO final acceptance. This could be a year later in some cases."
16. "I do not find Interscope user-friendly; it should be easier to report HUB data. (HUBSCO was easier.)"
17. While the results of this survey could be useful, I feel it would be extremely beneficial to conduct a qualitative study on this issue, talking in person with agency HUB coordinators but particularly with HUB vendors."
18. HUB vendors are used when a HUB vendor is an available supplier."
19. We are in a rural area - we do not get good response from HUB vendors even though I may reach out to them via email or phone call as well as posting on the state's IPS system."

## 6. CONCLUSIONS

Several themes emerged from this survey:

1. Most HUB coordinators are part time and have other duties.
2. Contract size and payments were the biggest perceived procurement barriers.
3. Most agencies did use 10 percent HUB goals but HUB goals did vary significantly amongst agencies
4. There were concerns expressed in comments about the application of the good faith efforts requirements, in particular, lack of understanding, prime avoidance of requirements without penalties and lack of HUB availability. There were not many specific complaints about the 50 point system for good faith efforts.
5. Most agencies did track and report HUB spending but issues with Interscope were raised several times.

The implications of the survey results are limited by the over representation of Community College staff amongst survey respondents.

## State of North Carolina Department of Administration 2020 Disparity Study

## APPENDIX G DATA ASSESSMENT REPORT

STATE OF NORTH CAROLINA<br>2020 DISPARITYSTUDY<br>DATA ASSESSMENT REPORT

Griffin \& Strong, P.C. ("GSPC") conducted data assessment meetings March 18 and 19, 2019 with State of North Carolina ("State") personnel regarding the State’s 2020 Disparity Study. This report summarizes those meetings and sets forth action items and preliminary questions to be answered. It is necessary to issue a Data Assessment Report prior to requesting data in order to confirm that GSPC has the correct understanding of how and where data is kept by the State. Following the confirmation of the Data Assessment Report, GSPC will issue a Data Collection Plan to summarize how it intends to collect the data.

## I. Scope Statement

The State of North Carolina's Session Law 2007-345, House Bill 714 amended S.L. 2007-345 provides the authority for the disparity study. It states, in pertinent part:

The Department of Administration may conduct a study on the availability and utilization of minority-owned and women-owned business enterprises and examine relevant evidence of the effects of race-based and gender-based discrimination upon the utilization of such business enterprises in contracts for planning, design, preconstruction, construction, maintenance, renovation, or repairs of State building projects, including building projects performed by a private entity on a facility to be leased or purchased by the State. The study may include local government units or other public or private entities that receive State funding for a building or utility project, or other State grant funds for such projects performed by a private entity on a facility to be leased or purchased by the local government unit. The study may further examine relevant evidence of the effects of race-based and gender-based discrimination upon the utilization of such business enterprises in contracts for the procurement of materials, supplies, equipment, apparatus, or other goods and services by all State entities.

Based on this authority, the Study will collect and analyze relevant data on for the work categories of:

1. Construction Related Professional Services (planning, design, and preconstruction)
2. Construction Services (construction, maintenance, renovation, or repairs of State building project, including building projects performed by a private entity on a facility to be leased or purchased by the State.
3. Professional services
4. Other Services and Goods (materials, supplies, equipment, apparatus and other goods and services)

The Disparity Study will cover a period of July 1, 2013-June 30, 2018 (FY2014-FY2018) ("Study Period")

The dollars spent (whether as prime contractors or subcontractors) will be collected and analyzed from the following agencies with their purchasing/financial system:

* Cabinet Agencies ${ }^{1}-9$ plus analysis of goods and services for NCDOT

| Department of Administration | Cabinet | e-Procurement |
| :--- | :--- | :--- |
| Department of Commerce | Cabinet | e-Procurement |
| Department of Environmental Quality | Cabinet | e-Procurement |
| Department of Health and Human Services | Cabinet | e-Procurement \& NCAS |
| Department of Information Technology | Cabinet | e-Procurement |
| Department of Military and Veterans Affairs | Cabinet | e-Procurement |
| Department of Natural and Cultural Resources | Cabinet | e-Procurement |
| Department of Public Safety | Cabinet | e-Procurement |
| Department of Revenue | Cabinet | e-Procurement |
| Department of Transportation ${ }^{2}$ | Cabinet | SAP |

Issue: Confirm what is covered by $\S 136$ and $\S 143$ so there is no overlap between the NCDOT and NCDOA studies.

* Council of State Agencies - 9

| Department of Agriculture and Consumer <br> Services | Council | e-Procurement |
| :--- | :--- | :--- |
| Department of Insurance | Council | e-Procurement |
| Department of Justice | Council | e-Procurement |
| Department of Labor | Council | e-Procurement |
| Department of Public Instruction | Council | e-Procurement |
| Department of the Secretary of State | Council | e-Procurement |
| Department of the Treasurer | Council | e-Procurement |
| Lieutenant Governor | Council | e-Procurement |
| State Auditor | Council | e-Procurement |

[^63]* Support Agencies - 10

| Administrative Hearings | Support | e-Procurement |
| :--- | :--- | :--- |
| Administrative Office of the Courts | Support | Exercising judicial <br> exemption to not report |
| Board of Elections | Support | e-Procurement |
| Community College System | Support | e-Procurement |
| Education Lottery | Support | Dynamics AX |
| General Assembly | Support | e-Procurement |
| Office of the Governor | Support | e-Procurement |
| Ports Authority | Support | e-Procurement |
| State Controller | Support | e-Procurement |
| Wildlife Resources Commission | Support | e-Procurement |

Issue: The above list includes the Administrative Office of the Courts that may not follow State procurement laws and currently do not report HUB numbers. This should be resolved as to whether they should be included in the Study.

* Community Colleges - 58

| Alamance Community College | Community College | Colleague |
| :--- | :--- | :--- |
| Asheville-Buncombe Technical <br> Community College | Community College | Colleague |
| Beaufort County Community College | Community College | Colleague |
| Bladen Community College | Community College | Colleague |
| Blue Ridge Community College | Community College | Colleague |
| Brunswick Community College | Community College | Colleague |
| Caldwell Community College and <br> Technical Institute | Community College | Colleague |
| Cape Fear Community College | Community College | Colleague |
| Carteret Community College | Community College | Colleague |
| Catawba Valley Community College | Community College | Colleague |
| Central Carolina Community College | Community College | Colleague |
| Central Piedmont Community College | Community College | Colleague |
| Cleveland Community College | Community College | Colleague |
| Coastal Carolina Community College | Community College | Colleague |
| College of The Albemarle | Community College | Colleague |
| Craven Community College | Community College | Colleague |
| Davidson County Community College | Community College | Colleague |
| Durham Technical Community College | Community College | Colleague |
| Edgecombe Community College | Community College | Colleague |
| Fayetteville Technical Community <br> College | Community College | Colleague |
| Forsyth Technical Community College | Community College | Colleague |


| Gaston College | Community College | Colleague |
| :---: | :---: | :---: |
| Guilford Technical Community College | Community College | Colleague |
| Halifax Community College | Community College | Colleague |
| Haywood Community College | Community College | Colleague |
| Isothermal Community College | Community College | Colleague |
| James Sprunt Community College | Community College | Colleague |
| Johnston Community College | Community College | Colleague |
| Lenoir Community College | Community College | Colleague |
| Martin Community College | Community College | Colleague |
| Mayland Community College | Community College | Colleague |
| McDowell Technical Community College | Community College | Colleague |
| Mitchell Community College | Community College | Colleague |
| Montgomery Community College | Community College | Colleague |
| Nash Community College | Community College | Colleague |
| Pamlico Community College | Community College | Colleague |
| Piedmont Community College | Community College | Colleague |
| Pitt Community College | Community College | Colleague |
| Randolph Community College | Community College | Colleague |
| Richmond Community College | Community College | Colleague |
| Roanoke-Chowan Community College | Community College | Colleague |
| Robeson Community College | Community College | Colleague |
| Rockingham Community College | Community College | Colleague |
| Rowan-Cabarrus Community College | Community College | Colleague |
| Sampson Community College | Community College | Colleague |
| Sandhills Community College | Community College | Colleague |
| South Piedmont Community College | Community College | Colleague |
| Southeastern Community College | Community College | Colleague |
| Southwestern Community College | Community College | Colleague |
| Stanly Community College | Community College | Colleague |
| Surry Community College | Community College | Colleague |
| Tri-County Community College | Community College | Colleague |
| Vance-Granville Community College | Community College | Colleague |
| Wake Technical Community College | Community College | Colleague |
| Wayne Community College | Community College | Colleague |
| Western Piedmont Community College | Community College | Colleague |
| Wilkes Community College | Community College | Colleague |
| Wilson Community College | Community College | Colleague |

* Universities $16+3$ Related Institutions

| Appalachian State University | University | Banner |
| :--- | :--- | :--- |
| East Carolina University | University | Banner |
| Elizabeth City State University | University | Banner |
| Fayetteville State University | University | Banner |
| NC A\&T State University | University | Banner |
| NC Arboretum - Construction Reporting Only | University | Unknown |
| NC School of Science and Mathematics | University | Banner |
| NC School of the Arts | University | Banner |
| North Carolina Central University | University | Banner |
| North Carolina State University | University | PeopleSoft |
| UNC Asheville | University | Banner |
| UNC Chapel Hill | University | PeopleSoft |
| UNC Charlotte | University | Banner |
| UNC General Administration | University | Banner |
| UNC Greensboro | University | Banner |
| UNC Hospitals | University | Banner |
| UNC Pembroke | University | Banner |
| UNC Wilmington | University | Banner |
| UNC-TV - Construction reporting only | University | Unknown |
| Western Carolina University | University | Banner |
| Winston-Salem State University | University | Banner |

Issue: The list above also includes NC Aboretum and UNC-TV for Construction only. We need to confirm this.

Issue: For all groups, GSPC needs a contact to direct data requests to.

## II. Data Assessment Meetings

GSPC conducted several on site data assessment meetings to ascertain the location, types, and constraints on the data needed for the Study, as well as obtain a basic understanding of the State's purchasing practices with GSPC team member, members of the State HUB Office, and procurement personnel.

Among those that attended the meetings, which combined the kickoff and data assessment inquiries, were:

Machelle Sanders - DOA Secretary
Odessa McGlown - Director of Purchasing and Contracts.
Tammie Hall- HUB Director
Alicia Lyon - HUB Deputy Director

John D. Guenther - HUB Compliance Officer
For the GSPC team:

Rodney K. Strong - CEO and Project Executive
Michele Clark Jenkins - Sr. Director and Project Manager
Sterling Johnson - Director of Public Policy and Deputy Project Manager
Dr. Rom Haghighi - Chief Statistician
Dr. Vince Eagan - Principal Investigator
David Maher - Law Partner, Legal Analysis
Omar Baig - Data Analyst

## III. Preliminary Purchasing Practices

The State Department of Administration ("DOA") procures under G.S. $\S 143$ of North Carolina State law. All state agencies follow the state purchasing guidelines even if they use different systems or keep their data differently.

## A. Data Systems

Generally, procurement is decentralized, although several groupings utilize the same data reporting system that GSPC can pull data from:

1. Executive Branch (Cabinet, Council and Support Agencies) use the e-procurement system, except NCDOT which uses SAP and the Educational Lottery that uses DynamixAX. GSPC will already have access to SAP through;
2. All Construction since 2015 is centralized in the Interscope system;
3. Community Colleges use Colleague;
4. The Universities use individual systems, including PeopleSoft and Banner, some may also use eProcurement.
5. All statewide contracts are on eProcurement

Issues: Data assessment meeting did not bring up the Educational Lottery's use of DynamixAX. We need to discuss.

## 6. Types of Contracts

1. Each agency has a delegated authority. In most cases, that delegated authority is $\$ 25,000$, however, GSPC will ask that question to each agency to confirm when data requests go out.
2. Awards of $\$ 5,000$ or under do not require quotes and are not included in the Study.
3. Awards over $\$ 5,000$ must have quotes up to requirement for a formal bid of $\$ 25,000$
4. The exception is that Construction contracts over $\$ 30,000$ require a formal bid and over $\$ 500,000$ require a formal bid.

## IV. HUB Program

The State HUB program went into effect on April 20, 1999 by Executive Order 150. Its mission is "to promote the economic opportunities for historically underutilized businesses in State Government contracting and procurement that will foster their growth and profitability."

According to its website, its Policy Statement is to:

- Increase the amount of goods and services acquired by state agencies from businesses owned and controlled by HUB firms;
- Work towards eliminating barriers that reduce the participation of HUB firms in the marketplace, and in state government procurement and contracting;
- Encourage purchasing officers and capital project coordinators within the state agencies, departments, universities and community colleges to identify and utilize HUB vendors, contractors and service providers;
- Educate HUB firms on "How To Do Business" with the State of North Carolina; and
- Provide resources for HUB firms.

Each state agency is mandated to have a HUB liaison but some do not have them. Each state agency is also required to report its HUB numbers if they expend $\$ 500,000$ or more, but some have not. HUB spend is as a prime. There is not tracking of HUB spend for subcontractors.

The HUB program includes the following ownership:
African American
American Indian
Asian American
Hispanic American
Women (Caucasian women only)
Disadvantaged (Caucasian men only) (not included in the study)
Disabled (not included in the study)
Not-for-Profit Work Center (not included in the study)
The program is race based, so all minority firms are counted in their ethnic category.

## V. Data Assessment

A. General Data

Commodity Code System: The State utilizes NIGP codes and Construction "CSI" codes. The HUB certification uses NAICS codes.
B. Specific Data files

It was determined in this meeting that GSPC will need from The State:

1. Solicitations List - (Study Period)
2. Requisitions - (issued during Study Period)
3. Vendors (current)
4. Direct Invoices (Study Period)
5. Award/Contracts (Study Period)
6. Purchase Orders (Study Period)
7. Payments (Study Period)
8. Invoices (Study Period)
9. P-Card Purchases (Study Period)
10. Bidders list (during the Study Period)
11. Subcontractor data (during the Study Period)
12. HUB/MWBE list (current)

## 1. Solicitations

Solicitation go out through IPS. You do not have to be a registered vendor to be in IPS or to get notifications, so IPS vendors may be another source of firms for availability. GSPC will check the reliability of the data.

Jeanine Rose will provide us with a list of Construction solicitations during the Study Period on formal contracts over \$30,000.

## 2. Requisitions

The user department prepares a requisition to Purchasing and Contracts ("PNC"). PNC handles all other aspects of the procurement for eProcurement agencies.
3. Vendor List

The Vendor list is held in IPS and the list is online. IPS does talk to eProcurement. However, GSPC exported the online list and it does not have all the information needed on vendors unless you click individually on each vendor. GSPC will request a full off-line data file of vendors.

In eProcurement, you have to be registered in order to bid, so GSPC should have all the bidders
in the vendor list already for purposes of counting the firms in availability.
You don't have to be registered as a vendor to be in IPS, eProcurement or HUB

## 4. Direct Invoices

Some payments are made outside of P.O.'s and P-cards. They are payments off of direct invoices. For all cabinet agencies, request data from Odessa McGlown.

## 5. Award/Contracts

For eProcurement and for Community Colleges, the Contract file should reflect the entire amount of the contract except for statewide contracts. The contract file will also include the "finalization" amount of the contract. This means that all invoices have been entered and only at finalization will the HUB amount be entered.

Statewide term contracts are administered by Odessa McGlown's group. It is available for any state agency to use. P.O.s are issued under that contract. There is a field of information that indicates that a contract is statewide. Also, any goods or services over the delegation amount is procured by PNC.

All Construction data is contained in Interscope from 2015-present if over \$30,000. Since the statute is silent about tracking under $\$ 30,000$. Some project may be in there and some may not be. Prior to 2015, data may be kept by individual agencies or manual data. It also contains any HUB data for Construction, however no HUB is contained in Interscope for Design but subdesigners are in Interscope, as well as CMARS. There is also no Public Safety data in Interscope because their work is done as "Force Account" which means they are their own general contractor and hire "subcontractors." See Subcontractors below for more information.

LeaAnne Hahnel is the Interscope Administrator to contact for the Interscope data.
All payouts are in Interscope as are the following:
Dates
Vendor\#
Project \# (assigned by Interscope)
Work Description
Change Orders
Project Type
Funding Source may not be included (only State funding is included in the Study)
ISSUE: GSPC will have to determine whether any projects were federally funded.
ISSUE: Not sure whether the National Guard will be included in the Study since much of their funding is federal and they are an independent agency.

It is important to get the Interscope Manual in order to interpret the Project Type.

## 6. Purchase Orders ("P.O.")

P.O.s reflect the full amount of the award year by year. They are like a one-year encumbrance. Executive branch P.O.s are all in the eProcurement system and can be requested from Odessa McGlown. Community College P.O.s are in Colleague. Contact Cathy Daniels to get data. (note: procurement reports to finance).

For the Universities, data requests for P.O.s will have to be generally requested to adapt to whatever procurement system they have. Although the central office is UNC Administration, they do not have the data on each of the universities. Again, note that the procurement laws are uniformly applied, but the tracking and collecting of data will be individual to the universities except the Construction projects 2015-present that come through Interscope. However, Interscope will not have Construction projects under \$30,000 for the Universities. We will have to get those projects directly from the Universities. Jeanine Rose is going to send us a list of the capital contacts at the universities and will also send us a sample of the payment data that the UNC Administration has. We will get the list of HUB/procurement contacts at each of the Universities from Robby Terry.

IT procurement is separate and is done through CAI. There are about 500 prequalified vendors. Cathy Daniels has that report. The P.O. itself will just be to CAI.

## 7. Payments

NCAS (North Carolina Accounting System) comes through the controller's office. It has every payment request. It might be difficult to sort through all of them to determine procurement payments and it is unclear whether the university payments come through there. It appears that they would only have categories of university payments and not details. If there is a P.O. in NCAS it will tell you what the purchase was for, but not if it was a direct invoice and may not have a description. NCAS may not be helpful to GSPC to be a central location to pull data. We will find a lot of Health and Human Services awards coming through NCAS.

If we use the general ledger code for the key to what payments were for, in Construction, it will be under "capital"

## 8. Invoices

Every pay application has an Appendix F attached to it that includes all of the HUB firms. GSPC may need to gather a sample of those pay applications.

## 9. P-Cards

Last year, the State spent $\$ 600 \mathrm{M}$ through P-cards. Odessa McGlown has all the databases for Pcard statements. P-card limits cannot be over \$5,000 per transaction, but there are exceptions made through the p-card administrator and approved by Odessa McGlown. Therefore, there could be p-cards included in the Study if a single purchase exceeds $\$ 5,000$. Request P-card data from Avery Johnson.

## 10. Bidders

Bid tabs stay up on IPS for 30 days. Odessa McGlown said that they can be pulled out of the system for eProcurement. For all other groups, there may or may not be bid tabs or they may be manual. GSPC will have to make a general data request to all of them.

## 11. Subcontractors

The State does not currently track any subcontractors except first tier. For Construction, subcontractor data, should be in Interscope since 2015, but may only have HUB subcontractors. Jeanine Rose at UNC Administration stated that for the universities, all subcontractors, not just HUB are in Interscope.

Public Safety mostly does "Force Account" work. This means that they are their own general contractors and hire "subcontractors" to do work for them. For purposes of our Study, these subcontractors will be considered prime contractors. Robert Gron, Deputy Director, is working on getting us the data on these subprimes. Public Safety does not have the bidders or the subcontractors to these subprimes.

GSPC should also contact the State Construction Office for any PDF or manual data they might have for any missing subcontractors for Construction. Jamalh Greene is the HUB Small Business Coordinator in the State Construction Office for us to contact.

For other areas, although GSPC will still attempt to do some queries to get subcontractor data, it appears as if there is very little data and what is there may not be consistent. Previous to 2015, Construction subcontractors should be in HUBsco which captured all subcontractors, not just HUB.

GSPC will have to do a prime vendor questionnaire to get the subcontractor data.

## 12. HUB/MWBE Lists

The online HUB list is not as detailed as a list that can be run internally. Also, GSPC will use the DBE Directory.

## State of North Carolina Department of Administration 2020 Disparity Study

## APPENDIX H UTILIZATION BY COUNTY

## Appendix H

The tables in Appendix H (Tables H-1 through H-5) presents the dollar value of awards by counties in the state of North Carolina for all North Carolina prime spending, broken down by the five procurement categories. The counties are arranged from the highest dollar value to the lowest dollar value. The first percentage column is the percentage of North Carolina prime spending with firms in that county and the last column is the cumulative percentage of North Carolina spending with firms for that county and the counties above it.

Table H-1
North Carolina Disparity Study
Prime Construction by Counties
(Using Payment Dollars, FY 2014-2018)

| County, State | Amount |  | Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: |
| WAKE COUNTY, NC | \$ | 278,028,084 | 37.97\% | 37.97\% |
| NASH COUNTY, NC | \$ | 53,822,286 | 7.35\% | 45.32\% |
| GUILFORD COUNTY, NC | \$ | 44,508,638 | 6.08\% | 51.40\% |
| BUNCOMBE COUNTY, NC | \$ | 37,125,763 | 5.07\% | 56.47\% |
| MECKLENBURG COUNTY, NC | \$ | 22,244,251 | 3.04\% | 59.51\% |
| DURHAM COUNTY, NC | \$ | 19,170,624 | 2.62\% | 62.13\% |
| WAYNE COUNTY, NC | \$ | 15,787,819 | 2.16\% | 64.28\% |
| WILSON COUNTY, NC | \$ | 12,614,170 | 1.72\% | 66.01\% |
| SURRY COUNTY, NC | \$ | 11,850,964 | 1.62\% | 67.63\% |
| PITT COUNTY, NC | \$ | 11,556,312 | 1.58\% | 69.20\% |
| DAVIDSON COUNTY, NC | \$ | 11,256,392 | 1.54\% | 70.74\% |
| CATAWBA COUNTY, NC | \$ | 7,892,270 | 1.08\% | 71.82\% |
| NEW HANOVER COUNTY, NC | \$ | 7,594,776 | 1.04\% | 72.86\% |
| RANDOLPH COUNTY, NC | \$ | 7,580,484 | 1.04\% | 73.89\% |
| LEE COUNTY, NC | \$ | 7,150,668 | 0.98\% | 74.87\% |
| JOHNSTON COUNTY, NC | \$ | 6,928,211 | 0.95\% | 75.82\% |
| MOORE COUNTY, NC | \$ | 6,714,316 | 0.92\% | 76.73\% |
| CARTERET COUNTY, NC | \$ | 6,337,317 | 0.87\% | 77.60\% |
| STANLY COUNTY, NC | \$ | 6,293,924 | 0.86\% | 78.46\% |
| HAYWOOD COUNTY, NC | \$ | 6,011,427 | 0.82\% | 79.28\% |
| ONSLOW COUNTY, NC | \$ | 5,901,906 | 0.81\% | 80.08\% |
| LENOIR COUNTY, NC | \$ | 5,729,627 | 0.78\% | 80.87\% |
| IREDELL COUNTY, NC | \$ | 5,680,546 | 0.78\% | 81.64\% |
| WILKES COUNTY, NC | \$ | 5,605,834 | 0.77\% | 82.41\% |
| MONTGOMERY COUNTY, NC | \$ | 5,548,572 | 0.76\% | 83.17\% |
| CUMBERLAND COUNTY, NC | \$ | 5,360,393 | 0.73\% | 83.90\% |
| CALDWELL COUNTY, NC | \$ | 5,349,352 | 0.73\% | 84.63\% |
| BEAUFORT COUNTY, NC | \$ | 5,093,714 | 0.70\% | 85.32\% |
| ORANGE COUNTY, NC | \$ | 5,078,841 | 0.69\% | 86.02\% |
| FORSYTH COUNTY, NC | \$ | 5,002,969 | 0.68\% | 86.70\% |
| MCDOWELL COUNTY, NC | \$ | 3,941,185 | 0.54\% | 87.24\% |

Table H-1 (cont.)

| HENDERSON COUNTY, NC | \$ | 2,819,757 | 0.39\% | 87.62\% |
| :---: | :---: | :---: | :---: | :---: |
| ALAMANCE COUNTY, NC | \$ | 2,802,179 | 0.38\% | 88.01\% |
| MARTIN COUNTY, NC | \$ | 2,569,558 | 0.35\% | 88.36\% |
| DUPLIN COUNTY, NC | \$ | 2,330,779 | 0.32\% | 88.68\% |
| DARE COUNTY, NC | \$ | 2,195,116 | 0.30\% | 88.98\% |
| ROCKINGHAM COUNTY, NC | \$ | 2,178,542 | 0.30\% | 89.27\% |
| ROWAN COUNTY, NC | \$ | 2,127,384 | 0.29\% | 89.56\% |
| HARNETT COUNTY, NC | \$ | 2,076,125 | 0.28\% | 89.85\% |
| HYDE COUNTY, NC | \$ | 1,937,382 | 0.26\% | 90.11\% |
| CHOWAN COUNTY, NC | \$ | 1,835,712 | 0.25\% | 90.36\% |
| CABARRUS COUNTY, NC | \$ | 1,801,797 | 0.25\% | 90.61\% |
| CURRITUCK COUNTY, NC | \$ | 1,570,296 | 0.21\% | 90.82\% |
| LINCOLN COUNTY, NC | \$ | 1,570,124 | 0.21\% | 91.04\% |
| VANCE COUNTY, NC | \$ | 1,380,422 | 0.19\% | 91.23\% |
| PENDER COUNTY, NC | \$ | 1,191,466 | 0.16\% | 91.39\% |
| ANSON COUNTY, NC | \$ | 1,029,749 | 0.14\% | 91.53\% |
| CRAVEN COUNTY, NC | \$ | 1,015,924 | 0.14\% | 91.67\% |
| BERTIE COUNTY, NC | \$ | 865,779 | 0.12\% | 91.79\% |
| ROBESON COUNTY, NC | \$ | 853,918 | 0.12\% | 91.90\% |
| CLEVELAND COUNTY, NC | \$ | 850,481 | 0.12\% | 92.02\% |
| GRANVILLE COUNTY, NC | \$ | 811,381 | 0.11\% | 92.13\% |
| COLUMBUS COUNTY, NC | \$ | 782,193 | 0.11\% | 92.24\% |
| TYRRELL COUNTY, NC | \$ | 674,379 | 0.09\% | 92.33\% |
| GREENE COUNTY, NC | \$ | 601,131 | 0.08\% | 92.41\% |
| RUTHERFORD COUNTY, NC | \$ | 575,434 | 0.08\% | 92.49\% |
| BURKE COUNTY, NC | \$ | 571,185 | 0.08\% | 92.57\% |
| STOKES COUNTY, NC | \$ | 471,041 | 0.06\% | 92.63\% |
| TRANSYLVANIA COUNTY, NC | \$ | 445,898 | 0.06\% | 92.69\% |
| SWAIN COUNTY, NC | \$ | 428,211 | 0.06\% | 92.75\% |
| CHATHAM COUNTY, NC | \$ | 374,579 | 0.05\% | 92.80\% |
| EDGECOMBE COUNTY, NC | \$ | 367,083 | 0.05\% | 92.85\% |
| SAMPSON COUNTY, NC | \$ | 342,555 | 0.05\% | 92.90\% |
| FRANKLIN COUNTY, NC | \$ | 341,940 | 0.05\% | 92.95\% |
| UNION COUNTY, NC | \$ | 301,649 | 0.04\% | 92.99\% |
| PAMLICO COUNTY, NC | \$ | 256,667 | 0.04\% | 93.02\% |
| BRUNSWICK COUNTY, NC | \$ | 225,632 | 0.03\% | 93.05\% |
| PASQUOTANK COUNTY, NC | \$ | 223,103 | 0.03\% | 93.08\% |

Table H-1 (cont.)

| YADKIN COUNTY, NC | \$ | 222,356 | 0.03\% | 93.12\% |
| :---: | :---: | :---: | :---: | :---: |
| SCOTLAND COUNTY, NC | \$ | 210,882 | 0.03\% | 93.14\% |
| HALIFAX COUNTY, NC | \$ | 190,751 | 0.03\% | 93.17\% |
| ASHE COUNTY, NC | \$ | 156,462 | 0.02\% | 93.19\% |
| GASTON COUNTY, NC | \$ | 148,763 | 0.02\% | 93.21\% |
| MITCHELL COUNTY, NC | \$ | 146,430 | 0.02\% | 93.23\% |
| BLADEN COUNTY, NC | \$ | 120,734 | 0.02\% | 93.25\% |
| PERSON COUNTY, NC | \$ | 59,611 | 0.01\% | 93.26\% |
| WASHINGTON COUNTY, NC | \$ | 57,909 | 0.01\% | 93.26\% |
| ALLEGHANY COUNTY, NC | \$ | 54,819 | 0.01\% | 93.27\% |
| WATAUGA COUNTY, NC | \$ | 54,116 | 0.01\% | 93.28\% |
| RICHMOND COUNTY, NC | \$ | 50,925 | 0.01\% | 93.29\% |
| HOKE COUNTY, NC | \$ | 46,812 | 0.01\% | 93.29\% |
| AVERY COUNTY, NC | \$ | 29,879 | 0.00\% | 93.30\% |
| PERQUIMANS COUNTY, NC | \$ | 26,334 | 0.00\% | 93.30\% |
| HERTFORD COUNTY, NC | \$ | 24,890 | 0.00\% | 93.30\% |
| JONES COUNTY, NC | \$ | 21,807 | 0.00\% | 93.31\% |
| YANCEY COUNTY, NC | \$ | 20,037 | 0.00\% | 93.31\% |
| WARREN COUNTY, NC | \$ | 17,043 | 0.00\% | 93.31\% |
| GRAHAM COUNTY, NC | \$ | 14,880 | 0.00\% | 93.31\% |
| DAVIE COUNTY, NC | \$ | 10,370 | 0.00\% | 93.32\% |
| ALEXANDER COUNTY, NC | \$ | 8,785 | 0.00\% | 93.32\% |
| CAMDEN COUNTY, NC | \$ | 7,419 | 0.00\% | 93.32\% |
| CASWELL COUNTY, NC | \$ | 5,320 | 0.00\% | 93.32\% |
| MACON COUNTY, NC | \$ | 5,303 | 0.00\% | 93.32\% |
| JACKSON COUNTY, NC | \$ | 3,919 | 0.00\% | 93.32\% |
| POLK COUNTY, NC | \$ | 3,917 | 0.00\% | 93.32\% |
| CHEROKEE COUNTY, NC | \$ | 1,941 | 0.00\% | 93.32\% |
| MADISON COUNTY, NC | \$ | 1,822 | 0.00\% | 93.32\% |

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Table H-2
North Carolina Disparity Study
Prime Architecture \& Engineering by Counties
(Using Payment Dollars, FY 2014-2018)

| County, State | Amount | Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: |
| WAKE COUNTY, NC | \$ 106,106,806 | 43.93\% | 43.93\% |
| MECKLENBURG COUNTY, NC | \$ 64,000,827 | 26.50\% | 70.43\% |
| DURHAM COUNTY, NC | \$ 13,579,095 | 5.62\% | 76.05\% |
| BUNCOMBE COUNTY, NC | \$ 7,212,499 | 2.99\% | 79.04\% |
| GUILFORD COUNTY, NC | \$ 5,682,850 | 2.35\% | 81.39\% |
| CUMBERLAND COUNTY, NC | \$ 4,220,688 | 1.75\% | 83.14\% |
| NEW HANOVER COUNTY, NC | \$ $3,368,321$ | 1.39\% | 84.54\% |
| WAYNE COUNTY, NC | \$ 3,066,561 | 1.27\% | 85.81\% |
| PITT COUNTY, NC | \$ 2,735,320 | 1.13\% | 86.94\% |
| FORSYTH COUNTY, NC | \$ 2,298,627 | 0.95\% | 87.89\% |
| GASTON COUNTY, NC | \$ 1,208,581 | 0.50\% | 88.39\% |
| ORANGE COUNTY, NC | \$ 695,125 | 0.29\% | 88.68\% |
| ASHE COUNTY, NC | \$ 666,274 | 0.28\% | 88.95\% |
| CATAWBA COUNTY, NC | \$ 596,199 | 0.25\% | 89.20\% |
| ALAMANCE COUNTY, NC | \$ 504,724 | 0.21\% | 89.41\% |
| FRANKLIN COUNTY, NC | \$ 499,598 | 0.21\% | 89.62\% |
| GRANVILLE COUNTY, NC | \$ 435,133 | 0.18\% | 89.80\% |
| CRAVEN COUNTY, NC | \$ 410,971 | 0.17\% | 89.97\% |
| BEAUFORT COUNTY, NC | \$ 400,746 | 0.17\% | 90.13\% |
| CARTERET COUNTY, NC | \$ 372,648 | 0.15\% | 90.29\% |
| MCDOWELL COUNTY, NC | \$ 268,443 | 0.11\% | 90.40\% |
| CABARRUS COUNTY, NC | \$ 263,477 | 0.11\% | 90.51\% |
| ROBESON COUNTY, NC | \$ 256,468 | 0.11\% | 90.61\% |
| DUPLIN COUNTY, NC | \$ 228,001 | 0.09\% | 90.71\% |
| ANSON COUNTY, NC | \$ 198,554 | 0.08\% | 90.79\% |
| HAYWOOD COUNTY, NC | \$ 196,760 | 0.08\% | 90.87\% |
| DARE COUNTY, NC | \$ 137,228 | 0.06\% | 90.93\% |
| BURKE COUNTY, NC | \$ 125,946 | 0.05\% | 90.98\% |
| CHATHAM COUNTY, NC | \$ 108,386 | 0.04\% | 91.03\% |
| CLEVELAND COUNTY, NC | \$ 105,595 | 0.04\% | 91.07\% |
| IREDELL COUNTY, NC | \$ 97,788 | 0.04\% | 91.11\% |

Table H-2 (cont.)

| RANDOLPH COUNTY, NC | $\$$ | 93,570 | $0.04 \%$ | $91.15 \%$ |
| :--- | :--- | ---: | :--- | :--- |
| AVERY COUNTY, NC | $\$$ | 87,907 | $0.04 \%$ | $91.19 \%$ |
| GATES COUNTY, NC | $\$$ | 74,314 | $0.03 \%$ | $91.22 \%$ |
| CALDWELL COUNTY, NC | $\$$ | 73,766 | $0.03 \%$ | $91.25 \%$ |
| ROWAN COUNTY, NC | $\$$ | 72,274 | $0.03 \%$ | $91.28 \%$ |
| PERSON COUNTY, NC | $\$$ | 61,385 | $0.03 \%$ | $91.30 \%$ |
| ALLEGHANY COUNTY, NC | $\$$ | 60,716 | $0.03 \%$ | $91.33 \%$ |
| HARNETT COUNTY, NC | $\$$ | 49,825 | $0.02 \%$ | $91.35 \%$ |
| TRANSYLVANIA COUNTY, NC | $\$$ | 49,263 | $0.02 \%$ | $91.37 \%$ |
| BRUNSWICK COUNTY, NC | $\$$ | 48,741 | $0.02 \%$ | $91.39 \%$ |
| MITCHELL COUNTY, NC | $\$$ | 47,750 | $0.02 \%$ | $91.41 \%$ |
| HENDERSON COUNTY, NC | $\$$ | 41,928 | $0.02 \%$ | $91.43 \%$ |
| LENOIR COUNTY, NC | $\$$ | 38,383 | $0.02 \%$ | $91.44 \%$ |
| HOKE COUNTY, NC | $\$$ | 36,909 | $0.02 \%$ | $91.46 \%$ |
| RICHMOND COUNTY, NC | $\$$ | 31,655 | $0.01 \%$ | $91.47 \%$ |
| WATAUGA COUNTY, NC | $\$$ | 27,109 | $0.01 \%$ | $91.48 \%$ |
| BERTIE COUNTY, NC | $\$$ | 22,245 | $0.01 \%$ | $91.49 \%$ |
| HALIFAX COUNTY, NC | $\$$ | 20,277 | $0.01 \%$ | $91.50 \%$ |
| RUTHERFORD COUNTY, NC | $\$$ | 19,233 | $0.01 \%$ | $91.51 \%$ |
| POLK COUNTY, NC | $\$$ | 15,900 | $0.01 \%$ | $91.51 \%$ |
| LINCOLN COUNTY, NC | $\$$ | 14,200 | $0.01 \%$ | $91.52 \%$ |
| BLADEN COUNTY, NC | $\$$ | 10,930 | $0.00 \%$ | $91.52 \%$ |
| WILKES COUNTY, NC | $\$$ | 8,100 | $0.00 \%$ | $91.53 \%$ |
| STOKES COUNTY, NC | $\$$ | 7,100 | $0.00 \%$ | $91.53 \%$ |
| STANLY COUNTY, NC | $\$$ | 6,563 | $0.00 \%$ | $91.53 \%$ |
| NASH COUNTY, NC | $\$$ | 4,674 | $0.00 \%$ | $91.53 \%$ |
| SAMPSON COUNTY, NC | $\$$ | 1,430 | $0.00 \%$ | $91.53 \%$ |
| MOORE COUNTY, NC | $\$$ | 1,230 | $0.00 \%$ | $91.54 \%$ |
| PENDER COUNTY, NC | $\$$ | 1,000 | $0.00 \%$ | $91.54 \%$ |
| PERQUIMANS COUNTY, NC | $\$$ | 975 | $0.00 \%$ | $91.54 \%$ |
| JOHNSTON COUNTY, NC | $\$$ | 900 | $0.00 \%$ | $91.54 \%$ |

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## Table H-3

North Carolina Disparity Study
Prime Professional Services by Counties
(Using Payment Dollars, FY 2014-2018)

| County, State | Amount | Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: |
| WAKE COUNTY, NC | \$ 372,228,882 | 42.65\% | 42.65\% |
| FORSYTH COUNTY, NC | \$ 163,898,148 | 18.78\% | 61.43\% |
| MECKLENBURG COUNTY, NC | \$ 51,044,795 | 5.85\% | 67.28\% |
| GUILFORD COUNTY, NC | \$ 24,410,303 | 2.80\% | 70.08\% |
| DURHAM COUNTY, NC | \$ 22,212,783 | 2.55\% | 72.62\% |
| ROCKINGHAM COUNTY, NC | \$ 4,864,072 | 0.56\% | 73.18\% |
| SURRY COUNTY, NC | \$ 4,809,472 | 0.55\% | 73.73\% |
| CATAWBA COUNTY, NC | \$ 4,340,330 | 0.50\% | 74.23\% |
| NEW HANOVER COUNTY, NC | \$ 3,353,260 | 0.38\% | 74.61\% |
| BUNCOMBE COUNTY, NC | \$ 3,256,975 | 0.37\% | 74.99\% |
| ALAMANCE COUNTY, NC | \$ 2,704,659 | 0.31\% | 75.30\% |
| ONSLOW COUNTY, NC | \$ 2,641,672 | 0.30\% | 75.60\% |
| CUMBERLAND COUNTY, NC | \$ 2,129,658 | 0.24\% | 75.84\% |
| ORANGE COUNTY, NC | \$ 2,034,940 | 0.23\% | 76.08\% |
| WAYNE COUNTY, NC | \$ 1,945,063 | 0.22\% | 76.30\% |
| MACON COUNTY, NC | \$ 1,623,529 | 0.19\% | 76.49\% |
| JOHNSTON COUNTY, NC | \$ 1,414,264 | 0.16\% | 76.65\% |
| NASH COUNTY, NC | \$ 1,266,281 | 0.15\% | 76.79\% |
| JACKSON COUNTY, NC | \$ 1,222,569 | 0.14\% | 76.93\% |
| HENDERSON COUNTY, NC | \$ 1,218,017 | 0.14\% | 77.07\% |
| WILSON COUNTY, NC | \$ 1,213,881 | 0.14\% | 77.21\% |
| CHOWAN COUNTY, NC | \$ 973,906 | 0.11\% | 77.32\% |
| CHATHAM COUNTY, NC | \$ 940,820 | 0.11\% | 77.43\% |
| LENOIR COUNTY, NC | \$ 912,214 | 0.10\% | 77.54\% |
| IREDELL COUNTY, NC | \$ 849,730 | 0.10\% | 77.63\% |
| LINCOLN COUNTY, NC | \$ 803,293 | 0.09\% | 77.73\% |
| MITCHELL COUNTY, NC | \$ 787,553 | 0.09\% | 77.82\% |
| CRAVEN COUNTY, NC | \$ 729,749 | 0.08\% | 77.90\% |
| CARTERET COUNTY, NC | \$ 698,972 | 0.08\% | 77.98\% |
| PENDER COUNTY, NC | \$ 638,931 | 0.07\% | 78.05\% |
| LEE COUNTY, NC | \$ 624,825 | 0.07\% | 78.12\% |
| STANLY COUNTY, NC | \$ 598,527 | 0.07\% | 78.19\% |
| HAYWOOD COUNTY, NC | \$ 592,969 | 0.07\% | 78.26\% |
| GASTON COUNTY, NC | \$ 570,663 | 0.07\% | 78.33\% |
| HERTFORD COUNTY, NC | \$ 513,076 | 0.06\% | 78.39\% |
| WILKES COUNTY, NC | \$ 512,545 | 0.06\% | 78.44\% |
| PITT COUNTY, NC | \$ 464,657 | 0.05\% | 78.50\% |
| SAMPSON COUNTY, NC | \$ 441,443 | 0.05\% | 78.55\% |
| BLADEN COUNTY, NC | \$ 344,539 | 0.04\% | 78.59\% |
| UNION COUNTY, NC | \$ 337,872 | 0.04\% | 78.63\% |

Table H-3 (cont.)

| HYDE COUNTY, NC | \$ | 327,278 | 0.04\% | 78.66\% |
| :---: | :---: | :---: | :---: | :---: |
| CLEVELAND COUNTY, NC | \$ | 279,479 | 0.03\% | 78.70\% |
| ROBESON COUNTY, NC | \$ | 275,440 | 0.03\% | 78.73\% |
| RICHMOND COUNTY, NC | \$ | 262,483 | 0.03\% | 78.76\% |
| COLUMBUS COUNTY, NC | \$ | 258,326 | 0.03\% | 78.79\% |
| DAVIDSON COUNTY, NC | \$ | 252,661 | 0.03\% | 78.82\% |
| CABARRUS COUNTY, NC | \$ | 213,533 | 0.02\% | 78.84\% |
| BURKE COUNTY, NC | \$ | 202,073 | 0.02\% | 78.86\% |
| WATAUGA COUNTY, NC | \$ | 198,237 | 0.02\% | 78.89\% |
| MARTIN COUNTY, NC | \$ | 176,523 | 0.02\% | 78.91\% |
| NORTHAMPTON COUNTY, NC | \$ | 175,550 | 0.02\% | 78.93\% |
| BRUNSWICK COUNTY, NC | \$ | 162,343 | 0.02\% | 78.94\% |
| MOORE COUNTY, NC | \$ | 141,632 | 0.02\% | 78.96\% |
| ASHE COUNTY, NC | \$ | 134,628 | 0.02\% | 78.98\% |
| DUPLIN COUNTY, NC | \$ | 130,487 | 0.01\% | 78.99\% |
| EDGECOMBE COUNTY, NC | \$ | 120,000 | 0.01\% | 79.01\% |
| MCDOWELL COUNTY, NC | \$ | 112,249 | 0.01\% | 79.02\% |
| GRANVILLE COUNTY, NC | \$ | 100,000 | 0.01\% | 79.03\% |
| WARREN COUNTY, NC | \$ | 93,684 | 0.01\% | 79.04\% |
| TRANSYLVANIA COUNTY, NC | \$ | 87,294 | 0.01\% | 79.05\% |
| VANCE COUNTY, NC | \$ | 76,244 | 0.01\% | 79.06\% |
| CALDWELL COUNTY, NC | \$ | 69,343 | 0.01\% | 79.07\% |
| DARE COUNTY, NC | \$ | 62,550 | 0.01\% | 79.07\% |
| HARNETT COUNTY, NC | \$ | 38,720 | 0.00\% | 79.08\% |
| FRANKLIN COUNTY, NC | \$ | 37,714 | 0.00\% | 79.08\% |
| HALIFAX COUNTY, NC | \$ | 27,583 | 0.00\% | 79.09\% |
| BERTIE COUNTY, NC | \$ | 26,431 | 0.00\% | 79.09\% |
| CLAY COUNTY, NC | \$ | 25,168 | 0.00\% | 79.09\% |
| PERSON COUNTY, NC | \$ | 24,156 | 0.00\% | 79.09\% |
| STOKES COUNTY, NC | \$ | 16,410 | 0.00\% | 79.10\% |
| RANDOLPH COUNTY, NC | \$ | 13,208 | 0.00\% | 79.10\% |
| WASHINGTON COUNTY, NC | \$ | 12,065 | 0.00\% | 79.10\% |
| JONES COUNTY, NC | \$ | 8,944 | 0.00\% | 79.10\% |
| PASQUOTANK COUNTY, NC | \$ | 6,534 | 0.00\% | 79.10\% |
| BEAUFORT COUNTY, NC | \$ | 6,090 | 0.00\% | 79.10\% |
| RUTHERFORD COUNTY, NC | \$ | 5,166 | 0.00\% | 79.10\% |
| AVERY COUNTY, NC | \$ | 4,385 | 0.00\% | 79.10\% |
| ALEXANDER COUNTY, NC | \$ | 2,122 | 0.00\% | 79.10\% |
| ALLEGHANY COUNTY, NC | \$ | 1,716 | 0.00\% | 79.10\% |
| MONTGOMERY COUNTY, NC | \$ | 1,690 | 0.00\% | 79.10\% |
| ROWAN COUNTY, NC | \$ | 452 | 0.00\% | 79.10\% |
| GREENE COUNTY, NC | \$ | 350 | 0.00\% | 79.10\% |

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Table H-4
North Carolina Disparity Study
Prime Other Services by Counties
(Using Payment Dollars, FY 2014-2018)

| County, State | Amount |  |  |
| :--- | :--- | ---: | :---: | :---: |

Table H-4 (cont.)

| HARNETT COUNTY, NC | $\$$ | $4,431,999$ | $0.07 \%$ | $76.71 \%$ |
| :--- | :--- | :--- | :--- | :--- |
| WILSON COUNTY, NC | $\$$ | $3,895,574$ | $0.07 \%$ | $76.77 \%$ |
| GASTON COUNTY, NC | $\$$ | $3,565,275$ | $0.06 \%$ | $76.83 \%$ |
| CLEVELAND COUNTY, NC | $\$$ | $3,322,710$ | $0.06 \%$ | $76.89 \%$ |
| STANLY COUNTY, NC | $\$$ | $3,170,930$ | $0.05 \%$ | $76.94 \%$ |
| UNION COUNTY, NC | $\$$ | $3,153,775$ | $0.05 \%$ | $76.99 \%$ |
| CATAWBA COUNTY, NC | $\$$ | $3,145,264$ | $0.05 \%$ | $77.05 \%$ |
| SURRY COUNTY, NC | $\$$ | $3,081,100$ | $0.05 \%$ | $77.10 \%$ |
| HENDERSON COUNTY, NC | $\$$ | $2,848,181$ | $0.05 \%$ | $77.15 \%$ |
| BERTIE COUNTY, NC | $\$$ | $2,845,001$ | $0.05 \%$ | $77.19 \%$ |
| EDGECOMBE COUNTY, NC | $\$$ | $2,779,543$ | $0.05 \%$ | $77.24 \%$ |
| CRAVEN COUNTY, NC | $\$$ | $2,676,921$ | $0.05 \%$ | $77.29 \%$ |
| NASH COUNTY, NC | $\$$ | $2,637,981$ | $0.04 \%$ | $77.33 \%$ |
| CHATHAM COUNTY, NC | $\$$ | $2,528,649$ | $0.04 \%$ | $77.37 \%$ |
| ALEXANDER COUNTY, NC | $\$$ | $2,465,920$ | $0.04 \%$ | $77.42 \%$ |
| ALLEGHANY COUNTY, NC | $\$$ | $2,450,056$ | $0.04 \%$ | $77.46 \%$ |
| ROBESON COUNTY, NC | $\$$ | $2,289,053$ | $0.04 \%$ | $77.49 \%$ |
| FRANKLIN COUNTY, NC | $\$$ | $2,213,568$ | $0.04 \%$ | $77.53 \%$ |
| TRANSYLVANIA COUNTY, NC | $\$$ | $2,165,144$ | $0.04 \%$ | $77.57 \%$ |
| CARTERET COUNTY, NC | $\$$ | $2,128,550$ | $0.04 \%$ | $77.60 \%$ |
| LEE COUNTY, NC | $\$$ | $2,023,256$ | $0.03 \%$ | $77.64 \%$ |
| IREDELL COUNTY, NC | $\$$ | $1,968,237$ | $0.03 \%$ | $77.67 \%$ |
| HOKE COUNTY, NC | $\$$ | $1,784,147$ | $0.03 \%$ | $77.70 \%$ |
| WILKES COUNTY, NC | $\$$ | $1,557,118$ | $0.03 \%$ | $77.73 \%$ |
| DAVIDSON COUNTY, NC | $\$$ | $1,362,456$ | $0.02 \%$ | $77.75 \%$ |
| SAMPSON COUNTY, NC | $\$$ | $1,262,271$ | $0.02 \%$ | $77.77 \%$ |
| STOKES COUNTY, NC | $\$$ | $1,205,614$ | $0.02 \%$ | $77.79 \%$ |
| DUPLIN COUNTY, NC | $\$$ | $1,190,060$ | $0.02 \%$ | $77.81 \%$ |
| MONTGOMERY COUNTY, NC | $\$$ | $1,148,086$ | $0.02 \%$ | $77.83 \%$ |
| CLAY COUNTY, NC | $\$$ | $1,081,029$ | $0.02 \%$ | $77.85 \%$ |
| HALIFAX COUNTY, NC | $\$$ | $1,072,942$ | $0.02 \%$ | $77.87 \%$ |
| HYDE COUNTY, NC | $\$$ | $1,050,467$ | $0.02 \%$ | $77.89 \%$ |
| GATES COUNTY, NC | $\$$ | $1,034,057$ | $0.02 \%$ | $77.90 \%$ |
| MARTIN COUNTY, NC | $\$$ | $1,031,488$ | $0.02 \%$ | $77.92 \%$ |
| COLUMBUS COUNTY, NC | $\$$ | $1,027,624$ | $0.02 \%$ | $77.94 \%$ |
| HAYWOOD COUNTY, NC | $\$$ | 920,482 | $0.02 \%$ | $77.95 \%$ |
| RICHMOND COUNTY, NC | $\$$ | 877,546 | $0.01 \%$ | $77.97 \%$ |
|  |  |  |  |  |

Table H-4 (cont.)

| LINCOLN COUNTY, NC | $\$$ | 851,500 | $0.01 \%$ | $77.98 \%$ |
| :--- | :--- | :--- | :--- | :--- |
| ONSLOW COUNTY, NC | $\$$ | 709,911 | $0.01 \%$ | $77.99 \%$ |
| DAVIE COUNTY, NC | $\$$ | 668,661 | $0.01 \%$ | $78.00 \%$ |
| SCOTLAND COUNTY, NC | $\$$ | 614,507 | $0.01 \%$ | $78.02 \%$ |
| MADISON COUNTY, NC | $\$$ | 537,264 | $0.01 \%$ | $78.02 \%$ |
| PERSON COUNTY, NC | $\$$ | 531,580 | $0.01 \%$ | $78.03 \%$ |
| RUTHERFORD COUNTY, NC | $\$$ | 519,386 | $0.01 \%$ | $78.04 \%$ |
| CALDWELL COUNTY, NC | $\$$ | 462,115 | $0.01 \%$ | $78.05 \%$ |
| BLADEN COUNTY, NC | $\$$ | 422,072 | $0.01 \%$ | $78.06 \%$ |
| BRUNSWICK COUNTY, NC | $\$$ | 399,813 | $0.01 \%$ | $78.06 \%$ |
| VANCE COUNTY, NC | $\$$ | 319,656 | $0.01 \%$ | $78.07 \%$ |
| POLK COUNTY, NC | $\$$ | 298,939 | $0.01 \%$ | $78.07 \%$ |
| JONES COUNTY, NC | $\$$ | 262,826 | $0.00 \%$ | $78.08 \%$ |
| PAMLICO COUNTY, NC | $\$$ | 257,438 | $0.00 \%$ | $78.08 \%$ |
| ASHE COUNTY, NC | $\$$ | 250,567 | $0.00 \%$ | $78.09 \%$ |
| PERQUIMANS COUNTY, NC | $\$$ | 247,697 | $0.00 \%$ | $78.09 \%$ |
| AVERY COUNTY, NC | $\$$ | 245,390 | $0.00 \%$ | $78.10 \%$ |
| CHEROKEE COUNTY, NC | $\$$ | 227,111 | $0.00 \%$ | $78.10 \%$ |
| TYRRELL COUNTY, NC | $\$$ | 197,903 | $0.00 \%$ | $78.10 \%$ |
| WASHINGTON COUNTY, NC | $\$$ | 188,390 | $0.00 \%$ | $78.11 \%$ |
| ANSON COUNTY, NC | $\$$ | 186,532 | $0.00 \%$ | $78.11 \%$ |
| NORTHAMPTON COUNTY, NC | $\$$ | 146,666 | $0.00 \%$ | $78.11 \%$ |
| GREENE COUNTY, NC | $\$$ | 141,463 | $0.00 \%$ | $78.11 \%$ |
| HERTFORD COUNTY, NC | $\$$ | 119,076 | $0.00 \%$ | $78.12 \%$ |
| CASWELL COUNTY, NC | $\$$ | 93,874 | $0.00 \%$ | $78.12 \%$ |
| WARREN COUNTY, NC | $\$$ | 84,154 | $0.00 \%$ | $78.12 \%$ |
| CHOWAN COUNTY, NC | $\$$ | 76,059 | $0.00 \%$ | $78.12 \%$ |
| YANCEY COUNTY, NC | $\$$ | 68,865 | $0.00 \%$ | $78.12 \%$ |
| SWAIN COUNTY, NC | $\$$ | 28,438 | $0.00 \%$ | $78.12 \%$ |
| CAMDEN COUNTY, NC | $\$$ | 21,403 | $0.00 \%$ | $78.12 \%$ |
| CURRITUCK COUNTY, NC | $\$$ | 15,696 | $0.00 \%$ | $78.12 \%$ |
| GRAHAM COUNTY, NC | $\$$ | 11,808 | $0.00 \%$ | $78.12 \%$ |

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Table H-5
North Carolina Disparity Study
Prime Good by Counties
(Using Payment Dollars, FY 2014-2018)

| County, State | Amount | Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: |
| WAKE COUNTY, NC | \$ 2,148,062,253 | 45.64\% | 45.64\% |
| MECKLENBURG COUNTY, NC | \$ 543,548,725 | 11.55\% | 57.19\% |
| GUILFORD COUNTY, NC | \$ 494,541,695 | 10.51\% | 67.70\% |
| DURHAM COUNTY, NC | \$ 44,417,519 | 0.94\% | 68.65\% |
| HARNETT COUNTY, NC | \$ 34,575,373 | 0.73\% | 69.38\% |
| FORSYTH COUNTY, NC | \$ 32,670,101 | 0.69\% | 70.07\% |
| ROBESON COUNTY, NC | \$ 29,029,285 | 0.62\% | 70.69\% |
| NEW HANOVER COUNTY, NC | \$ 26,024,081 | 0.55\% | 71.24\% |
| PITT COUNTY, NC | \$ 22,449,681 | 0.48\% | 71.72\% |
| MACON COUNTY, NC | \$ 21,333,495 | 0.45\% | 72.17\% |
| BUNCOMBE COUNTY, NC | \$ 21,068,796 | 0.45\% | 72.62\% |
| WILSON COUNTY, NC | \$ 17,908,779 | 0.38\% | 73.00\% |
| CHATHAM COUNTY, NC | \$ 13,561,167 | 0.29\% | 73.29\% |
| MONTGOMERY COUNTY, NC | \$ 13,536,695 | 0.29\% | 73.58\% |
| JOHNSTON COUNTY, NC | \$ 12,637,257 | 0.27\% | 73.85\% |
| CATAWBA COUNTY, NC | \$ 9,658,345 | 0.21\% | 74.05\% |
| GRANVILLE COUNTY, NC | \$ 9,232,929 | 0.20\% | 74.25\% |
| ALAMANCE COUNTY, NC | \$ 9,048,431 | 0.19\% | 74.44\% |
| STANLY COUNTY, NC | \$ 8,946,378 | 0.19\% | 74.63\% |
| RANDOLPH COUNTY, NC | \$ 8,773,920 | 0.19\% | 74.82\% |
| COLUMBUS COUNTY, NC | \$ 8,729,802 | 0.19\% | 75.00\% |
| EDGECOMBE COUNTY, NC | \$ 8,321,284 | 0.18\% | 75.18\% |
| WAYNE COUNTY, NC | \$ 7,504,208 | 0.16\% | 75.34\% |
| CARTERET COUNTY, NC | \$ 7,154,482 | 0.15\% | 75.49\% |
| CABARRUS COUNTY, NC | \$ 6,887,218 | 0.15\% | 75.64\% |
| ROWAN COUNTY, NC | \$ 6,632,865 | 0.14\% | 75.78\% |
| SAMPSON COUNTY, NC | \$ 6,614,433 | 0.14\% | 75.92\% |
| IREDELL COUNTY, NC | \$ 6,591,972 | 0.14\% | 76.06\% |
| SURRY COUNTY, NC | \$ 6,512,712 | 0.14\% | 76.20\% |
| LENOIR COUNTY, NC | \$ 5,899,199 | 0.13\% | 76.32\% |
| BEAUFORT COUNTY, NC | \$ 5,766,558 | 0.12\% | 76.44\% |

Table H-5 (cont.)

| NASH COUNTY, NC | $\$$ | $5,380,164$ | $0.11 \%$ | $76.56 \%$ |
| :--- | :--- | :--- | :--- | :--- |
| CUMBERLAND COUNTY, NC | $\$$ | $5,175,534$ | $0.11 \%$ | $76.67 \%$ |
| WASHINGTON COUNTY, NC | $\$$ | $4,465,779$ | $0.09 \%$ | $76.76 \%$ |
| HENDERSON COUNTY, NC | $\$$ | $4,387,239$ | $0.09 \%$ | $76.86 \%$ |
| VANCE COUNTY, NC | $\$$ | $4,386,558$ | $0.09 \%$ | $76.95 \%$ |
| ASHE COUNTY, NC | $\$$ | $4,272,263$ | $0.09 \%$ | $77.04 \%$ |
| FRANKLIN COUNTY, NC | $\$$ | $3,935,965$ | $0.08 \%$ | $77.12 \%$ |
| ORANGE COUNTY, NC | $\$$ | $3,483,314$ | $0.07 \%$ | $77.20 \%$ |
| GASTON COUNTY, NC | $\$$ | $3,471,136$ | $0.07 \%$ | $77.27 \%$ |
| UNION COUNTY, NC | $\$$ | $3,421,976$ | $0.07 \%$ | $77.35 \%$ |
| HERTFORD COUNTY, NC | $\$$ | $3,270,684$ | $0.07 \%$ | $77.41 \%$ |
| BURKE COUNTY, NC | $\$$ | $3,117,558$ | $0.07 \%$ | $77.48 \%$ |
| DAVIDSON COUNTY, NC | $\$$ | $2,846,435$ | $0.06 \%$ | $77.54 \%$ |
| HALIFAX COUNTY, NC | $\$$ | $2,824,313$ | $0.06 \%$ | $77.60 \%$ |
| CLEVELAND COUNTY, NC | $\$$ | $2,814,085$ | $0.06 \%$ | $77.66 \%$ |
| MOORE COUNTY, NC | $\$$ | $2,764,428$ | $0.06 \%$ | $77.72 \%$ |
| NORTHAMPTON COUNTY, NC | $\$$ | $2,738,609$ | $0.06 \%$ | $77.78 \%$ |
| TRANSYLVANIA COUNTY, NC | $\$$ | $2,623,106$ | $0.06 \%$ | $77.83 \%$ |
| RUTHERFORD COUNTY, NC | $\$$ | $2,188,116$ | $0.05 \%$ | $77.88 \%$ |
| CRAVEN COUNTY, NC | $\$$ | $2,179,902$ | $0.05 \%$ | $77.93 \%$ |
| ANSON COUNTY, NC | $\$$ | $2,158,548$ | $0.05 \%$ | $77.97 \%$ |
| WILKES COUNTY, NC | $\$$ | $2,103,826$ | $0.04 \%$ | $78.02 \%$ |
| CALDWELL COUNTY, NC | $\$$ | $2,094,585$ | $0.04 \%$ | $78.06 \%$ |
| WATAUGA COUNTY, NC | $\$$ | $2,047,171$ | $0.04 \%$ | $78.11 \%$ |
| MARTIN COUNTY, NC | $\$$ | $1,863,891$ | $0.04 \%$ | $78.15 \%$ |
| DUPLIN COUNTY, NC | $\$$ | $1,787,425$ | $0.04 \%$ | $78.18 \%$ |
| POLK COUNTY, NC | $\$$ | $1,545,090$ | $0.03 \%$ | $78.22 \%$ |
| BRUNSWICK COUNTY, NC | $\$$ | $1,510,295$ | $0.03 \%$ | $78.25 \%$ |
| DARE COUNTY, NC | $\$$ | $1,487,562$ | $0.03 \%$ | $78.28 \%$ |
| PASQUOTANK COUNTY, NC | $\$$ | $1,459,321$ | $0.03 \%$ | $78.31 \%$ |
| RICHMOND COUNTY, NC | $\$$ | $1,343,792$ | $0.03 \%$ | $78.34 \%$ |
| BLADEN COUNTY, NC | $\$$ | $1,308,986$ | $0.03 \%$ | $78.37 \%$ |
| ALEXANDER COUNTY, NC | $\$$ | $1,237,141$ | $0.03 \%$ | $78.39 \%$ |
| DAVIE COUNTY, NC | $\$$ | $1,213,541$ | $0.03 \%$ | $78.42 \%$ |
| MCDOWELL COUNTY, NC | $\$$ | $1,193,869$ | $0.03 \%$ | $78.44 \%$ |
| PENDER COUNTY, NC | $\$ \$ 1,169,831$ | $0.02 \%$ | $78.47 \%$ |  |
| ROCKINGHAM COUNTY, NC | $\$$ | $1,165,292$ | $0.02 \%$ | $78.49 \%$ |
|  |  |  |  |  |

Table H-5 (cont.)

| CASWELL COUNTY, NC | $\$$ | $1,156,498$ | $0.02 \%$ | $78.52 \%$ |
| :--- | :--- | ---: | ---: | ---: |
| PERSON COUNTY, NC | $\$$ | $1,029,892$ | $0.02 \%$ | $78.54 \%$ |
| MITCHELL COUNTY, NC | $\$$ | 986,269 | $0.02 \%$ | $78.56 \%$ |
| LINCOLN COUNTY, NC | $\$$ | 980,920 | $0.02 \%$ | $78.58 \%$ |
| LEE COUNTY, NC | $\$$ | 944,828 | $0.02 \%$ | $78.60 \%$ |
| CAMDEN COUNTY, NC | $\$$ | 715,198 | $0.02 \%$ | $78.62 \%$ |
| HYDE COUNTY, NC | $\$$ | 709,330 | $0.02 \%$ | $78.63 \%$ |
| PAMLICO COUNTY, NC | $\$$ | 690,938 | $0.01 \%$ | $78.65 \%$ |
| GREENE COUNTY, NC | $\$$ | 687,977 | $0.01 \%$ | $78.66 \%$ |
| STOKES COUNTY, NC | $\$$ | 679,905 | $0.01 \%$ | $78.68 \%$ |
| CURRITUCK COUNTY, NC | $\$$ | 646,893 | $0.01 \%$ | $78.69 \%$ |
| CHOWAN COUNTY, NC | $\$$ | 631,097 | $0.01 \%$ | $78.70 \%$ |
| HAYWOOD COUNTY, NC | $\$$ | 626,411 | $0.01 \%$ | $78.72 \%$ |
| ALLEGHANY COUNTY, NC | $\$$ | 618,338 | $0.01 \%$ | $78.73 \%$ |
| ONSLOW COUNTY, NC | $\$$ | 548,628 | $0.01 \%$ | $78.74 \%$ |
| WARREN COUNTY, NC | $\$$ | 296,641 | $0.01 \%$ | $78.75 \%$ |
| JACKSON COUNTY, NC | $\$$ | 289,310 | $0.01 \%$ | $78.75 \%$ |
| AVERY COUNTY, NC | $\$$ | 278,134 | $0.01 \%$ | $78.76 \%$ |
| SCOTLAND COUNTY, NC | $\$$ | 224,679 | $0.00 \%$ | $78.76 \%$ |
| YANCEY COUNTY, NC | $\$$ | 200,619 | $0.00 \%$ | $78.77 \%$ |
| BERTIE COUNTY, NC | $\$$ | 190,393 | $0.00 \%$ | $78.77 \%$ |
| YADKIN COUNTY, NC | $\$$ | 139,432 | $0.00 \%$ | $78.78 \%$ |
| CHEROKEE COUNTY, NC | $\$$ | 96,934 | $0.00 \%$ | $78.78 \%$ |
| HOKE COUNTY, NC | $\$$ | 90,384 | $0.00 \%$ | $78.78 \%$ |
| GATES COUNTY, NC | $\$$ | 61,839 | $0.00 \%$ | $78.78 \%$ |
| PERQUIMANS COUNTY, NC | $\$$ | 48,747 | $0.00 \%$ | $78.78 \%$ |
| TYRRELL COUNTY, NC | $\$$ | 25,563 | $0.00 \%$ | $78.78 \%$ |
| JONES COUNTY, NC | $\$$ | 11,062 | $0.00 \%$ | $78.78 \%$ |
| SWAIN COUNTY, NC | $\$ 4844$ | $0.00 \%$ | $78.78 \%$ |  |
| GRAHAM COUNTY, NC | $\$$ | 4,323 | $0.00 \%$ | $78.78 \%$ |
| MADISON COUNTY, NC | $\$$ | 760 | $0.00 \%$ | $78.78 \%$ |

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## State of North Carolina Department of Administration 2020 Disparity Study

## APPENDIX I LIST OF ORGANIZATIONS INTERVIEWED

## List of Organizations

1. North Carolina SBA
2. American Council of Engineering Companies
3. State of North Carolina NAACP
4. National Society of Black Engineers (Research Circle
5. Commission on Indian Affairs
6. Greensboro Community Development Fund (Piedmont Business Capital)
7. Associated Builders and Contractors of the Carolinas
8. Fayetteville Public Works Commission
9. Small Business Administration (SBA)
10. American Council of Engineering Companies
11. High Point NAACP
12. Durham NAACP
13. SBA (Raleigh/Triangle)
14. Winston Salem Black Chamber
15. Carolina-Virginia Minority Supplier Development
16. Greater Fayetteville Chamber
17. North Carolina MWBE Coordinator's Network
18. Greensboro NAACP
19. Joseph M. Bryan Foundation
20. Fayetteville NAACP
21. Charlotte-Mecklenburg NAACP

## State of North Carolina Department of Administration 2020 Disparity Study

## APPENDIX J DISPARITY ANALYSIS USING CUSTOM CENSUS

## Appendix $\mathbf{J}$

The tables in Appendix J (Tables $\mathrm{J}-1$ and $\mathrm{J}-2$ ) presents disparity ratios on prime spending North Carolina projects by year over the Study Period in the relevant market using custom census availability. Custom census availability is based on a survey of firms in the Hoover's database. Custom census availability was conducted for Construction and Architecture and Engineering. The only overutilization was for Nonminority Women in Construction (Table J-1).

Table J-1
Disparity Results, Relevant Market Area Business Ownership Classification by Fiscal Year, Prime Construction

Using Payment Dollars, FY 2014-2018
Custom Census Availability
North Carolina Disparity Study

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | Less than 80\% | Statistical <br> Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | Black American | 0.22\% | 3.07\% | 7.11 | Underutilization | * |  |
|  | Asian American | 0.00\% | 0.31\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.22\% | 1.23\% | 17.77 | Underutilization | * |  |
|  | Native American | 0.00\% | 0.31\% | 0.00 | Underutilization | * |  |
|  | TOTAL MBE | 0.44\% | 4.91\% | 8.89 | Underutilization | * |  |
|  | Nonminority Female | 5.73\% | 2.45\% | 233.57 | Overutilization |  |  |
|  | TOTAL M/WBE | 6.17\% | 7.36\% | 83.78 | Underutilization |  |  |
|  | Non-M/WBE | 93.83\% | 92.64\% | 101.29 | Overutilization |  |  |
| 2015 | Black American | 0.77\% | 3.07\% | 25.01 | Underutilization | * |  |
|  | Asian American | 0.02\% | 0.31\% | 5.52 | Underutilization | * |  |
|  | Hispanic American | 0.19\% | 1.23\% | 15.83 | Underutilization | * |  |
|  | Native American | 0.04\% | 0.31\% | 14.32 | Underutilization | * |  |
|  | TOTAL MBE | 1.02\% | 4.91\% | 20.83 | Underutilization | * |  |
|  | Nonminority Female | 4.97\% | 2.45\% | 202.50 | Overutilization |  |  |
|  | TOTAL M/WBE | 5.99\% | 7.36\% | 81.39 | Underutilization |  |  |
|  | Non-M/WBE | 94.01\% | 92.64\% | 101.48 | Overutilization |  |  |
| 2016 | Black American | 0.47\% | 3.07\% | 15.39 | Underutilization | * |  |
|  | Asian American | 0.01\% | 0.31\% | 4.27 | Underutilization | * |  |
|  | Hispanic American | 0.71\% | 1.23\% | 58.10 | Underutilization | * |  |
|  | Native American | 0.04\% | 0.31\% | 12.25 | Underutilization | * |  |
|  | TOTAL MBE | 1.24\% | 4.91\% | 25.17 | Underutilization | * |  |
|  | Nonminority Female | 2.32\% | 2.45\% | 94.53 | Underutilization |  |  |
|  | TOTAL M/WBE | 3.56\% | 7.36\% | 48.29 | Underutilization | * |  |
|  | Non-M/WBE | 96.44\% | 92.64\% | 104.11 | Overutilization |  |  |
| 2017 | Black American | 0.32\% | 3.07\% | 10.53 | Underutilization | * |  |
|  | Asian American | 0.00\% | 0.31\% | 0.00 | Underutilization | * |  |
|  | Hispanic American | 0.64\% | 1.23\% | 52.45 | Underutilization | * |  |
|  | Native American | 0.61\% | 0.31\% | 197.58 | Overutilization |  |  |
|  | TOTAL MBE | 1.57\% | 4.91\% | 32.04 | Underutilization | * |  |
|  | Nonminority Female | 2.12\% | 2.45\% | 86.43 | Underutilization |  |  |
|  | TOTAL M/WBE | 3.69\% | 7.36\% | 50.17 | Underutilization | * |  |
|  | Non-M/WBE | 96.31\% | 92.64\% | 103.96 | Overutilization |  |  |
| 2018 | Black American | 1.16\% | 3.07\% | 37.69 | Underutilization | * |  |
|  | Asian American | 0.01\% | 0.31\% | 3.40 | Underutilization | * |  |
|  | Hispanic American | 1.28\% | 1.23\% | 104.02 | Overutilization |  |  |
|  | Native American | 0.18\% | 0.31\% | 57.55 | Underutilization | * |  |
|  | TOTAL MBE | 2.62\% | 4.91\% | 53.37 | Underutilization | * |  |
|  | Nonminority Female | 6.55\% | 2.45\% | 266.89 | Overutilization |  |  |
|  | TOTAL M/WBE | 9.17\% | 7.36\% | 124.54 | Overutilization |  |  |
|  | Non-M/WBE | 90.83\% | 92.64\% | 98.05 | Underutilization |  |  |
| Total | Black American | 0.58\% | 3.07\% | 18.83 | Underutilization | * | p < 0.05 |
|  | Asian American | 0.01\% | 0.31\% | 2.49 | Underutilization | * | p < 0.05 |
|  | Hispanic American | 0.62\% | 1.23\% | 50.89 | Underutilization | * | p < 05 |
|  | Native American | 0.19\% | 0.31\% | 62.58 | Underutilization | * | Small Number |
|  | TOTAL MBE | 1.40\% | 4.91\% | 28.56 | Underutilization | * | p < 05 |
|  | Nonminority Female | 4.25\% | 2.45\% | 173.09 | Overutilization |  |  |
|  | TOTAL M/WBE | 5.65\% | 7.36\% | 76.74 | Underutilization | * | p < 05 |
|  | Non-M/WBE | 94.35\% | 92.64\% | 101.85 | Overutilization |  |  |

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Table J-2
Disparity Results, Relevant Market Area
Business Ownership Classification by Fiscal Year, Prime Architecture \& Engineering Using Payment Dollars, FY 2014-2018

Custom Census Availability North Carolina Disparity Study

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | $\begin{aligned} & \text { Less than } \\ & 80 \% \end{aligned}$ | Statistical Significance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | Black American | 0.00\% | 3.36\% | 0.00 | Underutilization | * |  |
|  | Asian American | 0.00\% | 0.00\% | - | n/a |  |  |
|  | Hispanic American | 0.22\% | 2.52\% | 8.55 | Underutilization | * |  |
|  | Native American | 0.16\% | 0.00\% | - | n/a |  |  |
|  | TOTAL MBE | 0.38\% | 5.88\% | 6.51 | Underutilization | * |  |
|  | Nonminority Female | 4.28\% | 10.92\% | 39.20 | Underutilization | * |  |
|  | TOTAL M/WBE | 4.67\% | 16.81\% | 27.76 | Underutilization | * |  |
|  | Non-M/WBE | 95.33\% | 83.19\% | 114.59 | Overutilization |  |  |
| 2015 | Black American | 1.30\% | 3.36\% | 38.65 | Underutilization | * |  |
|  | Asian American | 0.05\% | 0.00\% | - | n/a |  |  |
|  | Hispanic American | 0.24\% | 2.52\% | 9.32 | Underutilization | * |  |
|  | Native American | 0.05\% | 0.00\% | - | n/a |  |  |
|  | TOTAL MBE | 1.64\% | 5.88\% | 27.80 | Underutilization | * |  |
|  | Nonminority Female | 6.33\% | 10.92\% | 57.98 | Underutilization | * |  |
|  | TOTAL M/WBE | 7.97\% | 16.81\% | 47.42 | Underutilization | * |  |
|  | Non-M/WBE | 92.03\% | 83.19\% | 110.62 | Overutilization |  |  |
| 2016 | Black American | 0.00\% | 3.36\% | 0.00 | Underutilization | * |  |
|  | Asian American | 0.00\% | 0.00\% | - | n/a |  |  |
|  | Hispanic American | 0.44\% | 2.52\% | 17.29 | Underutilization | * |  |
|  | Native American | 0.03\% | 0.00\% | - | n/a |  |  |
|  | TOTAL MBE | 0.46\% | 5.88\% | 7.87 | Underutilization | * |  |
|  | Nonminority Female | 4.10\% | 10.92\% | 37.57 | Underutilization | * |  |
|  | TOTAL M/WBE | 4.57\% | 16.81\% | 27.18 | Underutilization | * |  |
|  | Non-M/WBE | 95.43\% | 83.19\% | 114.71 | Overutilization |  |  |
| 2017 | Black American | 0.00\% | 3.36\% | 0.00 | Underutilization | * |  |
|  | Asian American | 0.00\% | 0.00\% | - | n/a |  |  |
|  | Hispanic American | 0.26\% | 2.52\% | 10.41 | Underutilization | * |  |
|  | Native American | 0.30\% | 0.00\% | - | n/a |  |  |
|  | TOTAL MBE | 0.56\% | 5.88\% | 9.60 | Underutilization | * |  |
|  | Nonminority Female | 8.13\% | 10.92\% | 74.42 | Underutilization | * |  |
|  | TOTAL M/WBE | 8.69\% | 16.81\% | 51.73 | Underutilization | * |  |
|  | Non-M/WBE | 91.31\% | 83.19\% | 109.75 | Overutilization |  |  |
| 2018 | Black American | 0.02\% | 3.36\% | 0.48 | Underutilization | * |  |
|  | Asian American | 0.00\% | 0.00\% | - | n/a |  |  |
|  | Hispanic American | 0.31\% | 2.52\% | 12.22 | Underutilization | * |  |
|  | Native American | 2.91\% | 0.00\% | - | n/a |  |  |
|  | TOTAL MBE | 3.24\% | 5.88\% | 55.06 | Underutilization | * |  |
|  | Nonminority Female | 11.68\% | 10.92\% | 106.95 | Overutilization |  |  |
|  | TOTAL M/WBE | 14.92\% | 16.81\% | 88.79 | Underutilization |  |  |
|  | Non-M/WBE | 85.08\% | 83.19\% | 102.27 | Overutilization |  |  |
| Total | Black American | 0.24\% | 3.36\% | 7.06 | Underutilization | * | p < . 05 |
|  | Asian American | 0.01\% | 0.00\% | - | n/a |  | Small Number |
|  | Hispanic American | 0.28\% | 2.52\% | 11.05 | Underutilization | * | p < . 05 |
|  | Native American | 0.77\% | 0.00\% | - | n/a |  | Small Number |
|  | TOTAL MBE | 1.30\% | 5.88\% | 22.09 | Underutilization | * | p<. 05 |
|  | Nonminority Female | 7.02\% | 10.92\% | 64.30 | Underutilization | * | p < . 05 |
|  | TOTAL M/WBE | 8.32\% | 16.81\% | 49.53 | Underutilization | * | p < . 05 |
|  | Non-M/WBE | 91.68\% | 83.19\% | 110.20 | Overutilization |  |  |

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# APPENDIX K AVAILABILITY BY COUNTY 

## APPENDIX K - Availability by County

The tables in Appendix K (Tables B-1 through B-5) presents the number of available firms by county in the Relevant Geographic Market of the State of North Carolina. Availability is also detailed by Industry Category and race/ethnicity/gender in Appendix B of this report.

Table K-1
Availability of Firms by County in Market Area Construction North Carolina Disparity Study

| Procurement Category | County, State | Number of Vendors |
| :---: | :---: | :---: |
| Construction | ALAMANCE COUNTY, NC | 50 |
| Construction | ALEXANDER COUNTY, NC | 6 |
| Construction | ALLEGHANY COUNTY, NC | 6 |
| Construction | ANSON COUNTY, NC | 8 |
| Construction | ASHE COUNTY, NC | 21 |
| Construction | AVERY COUNTY, NC | 4 |
| Construction | BEAUFORT COUNTY, NC | 19 |
| Construction | BERTIE COUNTY, NC | 8 |
| Construction | BLADEN COUNTY, NC | 16 |
| Construction | BRUNSWICK COUNTY, NC | 30 |
| Construction | BUNCOMBE COUNTY, NC | 76 |
| Construction | BURKE COUNTY, NC | 30 |
| Construction | CABARRUS COUNTY, NC | 48 |
| Construction | CALDWELL COUNTY, NC | 15 |
| Construction | CAMDEN COUNTY, NC | 2 |
| Construction | CARTERET COUNTY, NC | 33 |
| Construction | CASWELL COUNTY, NC | 1 |
| Construction | CATAWBA COUNTY, NC | 30 |
| Construction | CHATHAM COUNTY, NC | 26 |
| Construction | CHEROKEE COUNTY, NC | 9 |
| Construction | CHOWAN COUNTY, NC | 6 |
| Construction | CLAY COUNTY, NC | 2 |
| Construction | CLEVELAND COUNTY, NC | 22 |
| Construction | COLUMBUS COUNTY, NC | 27 |
| Construction | CRAVEN COUNTY, NC | 26 |
| Construction | CUMBERLAND COUNTY, NC | 72 |
| Construction | CURRITUCK COUNTY, NC | 9 |
| Construction | DARE COUNTY, NC | 59 |
| Construction | DAVIDSON COUNTY, NC | 26 |
| Construction | DAVIE COUNTY, NC | 11 |
| Construction | DUPLIN COUNTY, NC | 13 |
| Construction | DURHAM COUNTY, NC | 109 |
| Construction | EDGECOMBE COUNTY, NC | 12 |
| Construction | FORSYTH COUNTY, NC | 114 |

Table K-1 (con't)
Availability of Firms by County in Market Area Construction
North Carolina Disparity Study

| Procurement Category | County, State | Number of Vendors |
| :---: | :---: | :---: |
| Construction | FRANKLIN COUNTY, NC | 11 |
| Construction | GASTON COUNTY, NC | 29 |
| Construction | GATES COUNTY, NC | 1 |
| Construction | GRAHAM COUNTY, NC | 11 |
| Construction | GRANVILLE COUNTY, NC | 36 |
| Construction | GREENE COUNTY, NC | 5 |
| Construction | GUILFORD COUNTY, NC | 240 |
| Construction | HALIFAX COUNTY, NC | 20 |
| Construction | HARNETT COUNTY, NC | 31 |
| Construction | HAYWOOD COUNTY, NC | 20 |
| Construction | HENDERSON COUNTY, NC | 20 |
| Construction | HERTFORD COUNTY, NC | 4 |
| Construction | HOKE COUNTY, NC | 8 |
| Construction | HYDE COUNTY, NC | 9 |
| Construction | IREDELL COUNTY, NC | 26 |
| Construction | JACKSON COUNTY, NC | 4 |
| Construction | JOHNSTON COUNTY, NC | 67 |
| Construction | JONES COUNTY, NC | 8 |
| Construction | LEE COUNTY, NC | 17 |
| Construction | LENOIR COUNTY, NC | 40 |
| Construction | LINCOLN COUNTY, NC | 20 |
| Construction | MACON COUNTY, NC | 4 |
| Construction | MADISON COUNTY, NC | 4 |
| Construction | MARTIN COUNTY, NC | 16 |
| Construction | MCDOWELL COUNTY, NC | 31 |
| Construction | MECKLENBURG COUNTY, NC | 469 |
| Construction | MITCHELL COUNTY, NC | 4 |
| Construction | MONTGOMERY COUNTY, NC | 63 |
| Construction | MOORE COUNTY, NC | 25 |
| Construction | NASH COUNTY, NC | 32 |
| Construction | NEW HANOVER COUNTY, NC | 84 |
| Construction | ONSLOW COUNTY, NC | 38 |
| Construction | ORANGE COUNTY, NC | 18 |
| Construction | PAMLICO COUNTY, NC | 3 |
| Construction | PASQUOTANK COUNTY, NC | 17 |

Table K-1 (con't)
Availability of Firms by County in Market Area Construction
North Carolina Disparity Study

| Procurement Category | County, State | Number of Vendors |
| :---: | :---: | :---: |
| Construction | PENDER COUNTY, NC | 19 |
| Construction | PERQUIMANS COUNTY, NC | 5 |
| Construction | PERSON COUNTY, NC | 8 |
| Construction | PITT COUNTY, NC | 60 |
| Construction | POLK COUNTY, NC | 1 |
| Construction | RANDOLPH COUNTY, NC | 49 |
| Construction | RICHMOND COUNTY, NC | 10 |
| Construction | ROBESON COUNTY, NC | 54 |
| Construction | ROCKINGHAM COUNTY, NC | 28 |
| Construction | ROWAN COUNTY, NC | 29 |
| Construction | RUTHERFORD COUNTY, NC | 13 |
| Construction | SAMPSON COUNTY, NC | 15 |
| Construction | SCOTLAND COUNTY, NC | 8 |
| Construction | STANLY COUNTY, NC | 29 |
| Construction | STOKES COUNTY, NC | 15 |
| Construction | SURRY COUNTY, NC | 50 |
| Construction | SWAIN COUNTY, NC | 20 |
| Construction | TRANSYLVANIA COUNTY, NC | 17 |
| Construction | TYRRELL COUNTY, NC | 9 |
| Construction | UNION COUNTY, NC | 41 |
| Construction | VANCE COUNTY, NC | 29 |
| Construction | WAKE COUNTY, NC | 728 |
| Construction | WARREN COUNTY, NC | 8 |
| Construction | WASHINGTON COUNTY, NC | 8 |
| Construction | WATAUGA COUNTY, NC | 14 |
| Construction | WAYNE COUNTY, NC | 54 |
| Construction | WILKES COUNTY, NC | 36 |
| Construction | WILSON COUNTY, NC | 24 |
| Construction | YADKIN COUNTY, NC | 14 |
| Construction | YANCEY COUNTY, NC | 10 |

Table K-2

## Availability of Firms by County in Market Area

A\&E
North Carolina Disparity Study

| Procurement Category | County, State | Number of Vendors |
| :---: | :---: | :---: |
| A\&E | ALAMANCE COUNTY, NC | 14 |
| A\&E | ALLEGHANY COUNTY, NC | 2 |
| A\&E | ANSON COUNTY, NC | 5 |
| A\&E | ASHE COUNTY, NC | 7 |
| A\&E | AVERY COUNTY, NC | 5 |
| A\&E | BEAUFORT COUNTY, NC | 6 |
| A\&E | BERTIE COUNTY, NC | 3 |
| A\&E | BLADEN COUNTY, NC | 1 |
| A\&E | BRUNSWICK COUNTY, NC | 2 |
| A\&E | BUNCOMBE COUNTY, NC | 35 |
| A\&E | BURKE COUNTY, NC | 3 |
| A\&E | CABARRUS COUNTY, NC | 5 |
| A\&E | CALDWELL COUNTY, NC | 1 |
| A\&E | CARTERET COUNTY, NC | 4 |
| A\&E | CATAWBA COUNTY, NC | 2 |
| A\&E | CHATHAM COUNTY, NC | 3 |
| A\&E | CLEVELAND COUNTY, NC | 2 |
| A\&E | CRAVEN COUNTY, NC | 6 |
| A\&E | CUMBERLAND COUNTY, NC | 3 |
| A\&E | DARE COUNTY, NC | 10 |
| A\&E | DAVIE COUNTY, NC | 1 |
| A\&E | DUPLIN COUNTY, NC | 1 |
| A\&E | DURHAM COUNTY, NC | 30 |
| A\&E | FORSYTH COUNTY, NC | 16 |
| A\&E | GASTON COUNTY, NC | 9 |
| A\&E | GATES COUNTY, NC | 2 |
| A\&E | GRANVILLE COUNTY, NC | 11 |
| A\&E | GUILFORD COUNTY, NC | 48 |
| A\&E | HALIFAX COUNTY, NC | 2 |

Table K-2 (con't)
Availability of Firms by County in Market Area A\&E
North Carolina Disparity Study

| Procurement Category | County, State | Number of Vendors |
| :---: | :---: | :---: |
| A\&E | HARNETT COUNTY, NC | 2 |
| A\&E | HAYWOOD COUNTY, NC | 5 |
| A\&E | HENDERSON COUNTY, NC | 1 |
| A\&E | HOKE COUNTY, NC | 2 |
| A\&E | IREDELL COUNTY, NC | 1 |
| A\&E | JACKSON COUNTY, NC | 1 |
| A\&E | JOHNSTON COUNTY, NC | 1 |
| A\&E | LEE COUNTY, NC | 2 |
| A\&E | LENOIR COUNTY, NC | 3 |
| A\&E | LINCOLN COUNTY, NC | 2 |
| A\&E | MCDOWELL COUNTY, NC | 3 |
| A\&E | MECKLENBURG COUNTY, NC | 87 |
| A\&E | MITCHELL COUNTY, NC | 1 |
| A\&E | MOORE COUNTY, NC | 2 |
| A\&E | NASH COUNTY, NC | 1 |
| A\&E | NEW HANOVER COUNTY, NC | 13 |
| A\&E | ONSLOW COUNTY, NC | 1 |
| A\&E | ORANGE COUNTY, NC | 6 |
| A\&E | PENDER COUNTY, NC | 2 |
| A\&E | PERQUIMANS COUNTY, NC | 1 |
| A\&E | PERSON COUNTY, NC | 1 |
| A\&E | PITT COUNTY, NC | 5 |
| A\&E | POLK COUNTY, NC | 1 |
| A\&E | RANDOLPH COUNTY, NC | 6 |
| A\&E | RICHMOND COUNTY, NC | 1 |
| A\&E | ROBESON COUNTY, NC | 7 |
| A\&E | ROCKINGHAM COUNTY, NC | 1 |
| A\&E | ROWAN COUNTY, NC | 1 |
| A\&E | RUTHERFORD COUNTY, NC | 1 |
| A\&E | SAMPSON COUNTY, NC | 1 |
| A\&E | STOKES COUNTY, NC | 1 |
| A\&E | SURRY COUNTY, NC | 1 |
| A\&E | SWAIN COUNTY, NC | 5 |
| A\&E | TRANSYLVANIA COUNTY, NC | 4 |
| A\&E | UNION COUNTY, NC | 3 |
| A\&E | WAKE COUNTY, NC | 174 |
| A\&E | WATAUGA COUNTY, NC | 3 |
| A\&E | WAYNE COUNTY, NC | 6 |
| A\&E | WILKES COUNTY, NC | 1 |
| A\&E | WILSON COUNTY, NC | 1 |

Table K-3
Availability of Firms by County in Market Area
Professional Services
North Carolina Disparity Study

| Procurement Category | County, State | Number of Vendors |
| :---: | :---: | :---: |
| Professional Services | ALAMANCE COUNTY, NC | 24 |
| Professional Services | ALEXANDER COUNTY, NC | 1 |
| Professional Services | ALLEGHANY COUNTY, NC | 2 |
| Professional Services | ANSON COUNTY, NC | 1 |
| Professional Services | ASHE COUNTY, NC | 4 |
| Professional Services | AVERY COUNTY, NC | 3 |
| Professional Services | BEAUFORT COUNTY, NC | 6 |
| Professional Services | BERTIE COUNTY, NC | 2 |
| Professional Services | BLADEN COUNTY, NC | 2 |
| Professional Services | BRUNSWICK COUNTY, NC | 3 |
| Professional Services | BUNCOMBE COUNTY, NC | 67 |
| Professional Services | BURKE COUNTY, NC | 11 |
| Professional Services | CABARRUS COUNTY, NC | 26 |
| Professional Services | CALDWELL COUNTY, NC | 5 |
| Professional Services | CARTERET COUNTY, NC | 8 |
| Professional Services | CATAWBA COUNTY, NC | 17 |
| Professional Services | CHATHAM COUNTY, NC | 6 |
| Professional Services | CHEROKEE COUNTY, NC | 2 |
| Professional Services | CHOWAN COUNTY, NC | 2 |
| Professional Services | CLAY COUNTY, NC | 2 |
| Professional Services | CLEVELAND COUNTY, NC | 7 |
| Professional Services | COLUMBUS COUNTY, NC | 3 |
| Professional Services | CRAVEN COUNTY, NC | 14 |
| Professional Services | CUMBERLAND COUNTY, NC | 22 |
| Professional Services | DARE COUNTY, NC | 2 |
| Professional Services | DAVIDSON COUNTY, NC | 5 |
| Professional Services | DAVIE COUNTY, NC | 1 |
| Professional Services | DUPLIN COUNTY, NC | 5 |
| Professional Services | DURHAM COUNTY, NC | 125 |
| Professional Services | EDGECOMBE COUNTY, NC | 4 |
| Professional Services | FORSYTH COUNTY, NC | 63 |
| Professional Services | FRANKLIN COUNTY, NC | 2 |
| Professional Services | GASTON COUNTY, NC | 13 |
| Professional Services | GRAHAM COUNTY, NC | 1 |

Table K-3 (con't)
Availability of Firms by County in Market Area
Professional Services North Carolina Disparity Study

| Procurement Category | County, State | Number of Vendors |
| :---: | :---: | :---: |
| Professional Services | GRANVILLE COUNTY, NC | 5 |
| Professional Services | GREENE COUNTY, NC | 1 |
| Professional Services | GUILFORD COUNTY, NC | 127 |
| Professional Services | HALIFAX COUNTY, NC | 4 |
| Professional Services | HARNETT COUNTY, NC | 5 |
| Professional Services | HAYWOOD COUNTY, NC | 16 |
| Professional Services | HENDERSON COUNTY, NC | 37 |
| Professional Services | HERTFORD COUNTY, NC | 10 |
| Professional Services | HOKE COUNTY, NC | 1 |
| Professional Services | HYDE COUNTY, NC | 9 |
| Professional Services | IREDELL COUNTY, NC | 22 |
| Professional Services | JACKSON COUNTY, NC | 16 |
| Professional Services | JOHNSTON COUNTY, NC | 31 |
| Professional Services | JONES COUNTY, NC | 2 |
| Professional Services | LEE COUNTY, NC | 9 |
| Professional Services | LENOIR COUNTY, NC | 18 |
| Professional Services | LINCOLN COUNTY, NC | 8 |
| Professional Services | MACON COUNTY, NC | 7 |
| Professional Services | MADISON COUNTY, NC | 1 |
| Professional Services | MARTIN COUNTY, NC | 8 |
| Professional Services | MCDOWELL COUNTY, NC | 8 |
| Professional Services | MECKLENBURG COUNTY, NC | 306 |
| Professional Services | MITCHELL COUNTY, NC | 19 |
| Professional Services | MONTGOMERY COUNTY, NC | 2 |
| Professional Services | MOORE COUNTY, NC | 7 |
| Professional Services | NASH COUNTY, NC | 14 |
| Professional Services | NEW HANOVER COUNTY, NC | 35 |
| Professional Services | NORTHAMPTON COUNTY, NC | 5 |
| Professional Services | ONSLOW COUNTY, NC | 5 |
| Professional Services | ORANGE COUNTY, NC | 56 |
| Professional Services | PASQUOTANK COUNTY, NC | 5 |
| Professional Services | PENDER COUNTY, NC | 11 |
| Professional Services | PERQUIMANS COUNTY, NC | 1 |
| Professional Services | PERSON COUNTY, NC | 4 |
| Professional Services | PITT COUNTY, NC | 19 |

Table K-3 (con't)
Availability of Firms by County in Market Area
Professional Services
North Carolina Disparity Study

| Procurement Category | County, State | Number of Vendors |
| :--- | :--- | ---: |
| Professional Services | POLK COUNTY, NC | 1 |
| Professional Services | RANDOLPH COUNTY, NC | 2 |
| Professional Services | RICHMOND COUNTY, NC | 5 |
| Professional Services | ROBESON COUNTY, NC | 13 |
| Professional Services | ROCKINGHAM COUNTY, NC | 7 |
| Professional Services | ROWAN COUNTY, NC | 3 |
| Professional Services | RUTHERFORD COUNTY, NC | 3 |
| Professional Services | SAMPSON COUNTY, NC | 5 |
| Professional Services | STANLY COUNTY, NC | 12 |
| Professional Services | STOKES COUNTY, NC | 1 |
| Professional Services | SURRY COUNTY, NC | 15 |
| Professional Services | SWAIN COUNTY, NC | 8 |
| Professional Services | TRANSYLVANIA COUNTY, NC | 5 |
| Professional Services | UNION COUNTY, NC | 16 |
| Professional Services | VANCE COUNTY, NC | 1 |
| Professional Services | WAKE COUNTY, NC | 736 |
| Professional Services | WARREN COUNTY, NC | 7 |
| Professional Services | WASHINGTON COUNTY, NC | 3 |
| Professional Services | WATAUGA COUNTY, NC | 14 |
| Professional Services | WAYNE COUNTY, NC | 12 |
| Professional Services | WILKES COUNTY, NC | 6 |
| Professional Services | WILSON COUNTY, NC | 10 |
| Professional Services | YADKIN COUNTY, NC | 2 |
|  |  | 7 |

Table K-4 (con't)
Availability of Firms by County in Market Area Other Services
North Carolina Disparity Study

| Procurement Category | County, State | Number of Vendors |
| :---: | :---: | :---: |
| Other Services | ALAMANCE COUNTY, NC | 87 |
| Other Services | ALEXANDER COUNTY, NC | 18 |
| Other Services | ALLEGHANY COUNTY, NC | 10 |
| Other Services | ANSON COUNTY, NC | 20 |
| Other Services | ASHE COUNTY, NC | 26 |
| Other Services | AVERY COUNTY, NC | 16 |
| Other Services | BEAUFORT COUNTY, NC | 53 |
| Other Services | BERTIE COUNTY, NC | 16 |
| Other Services | BLADEN COUNTY, NC | 33 |
| Other Services | BRUNSWICK COUNTY, NC | 38 |
| Other Services | BUNCOMBE COUNTY, NC | 296 |
| Other Services | BURKE COUNTY, NC | 112 |
| Other Services | CABARRUS COUNTY, NC | 85 |
| Other Services | CALDWELL COUNTY, NC | 37 |
| Other Services | CAMDEN COUNTY, NC | 7 |
| Other Services | CARTERET COUNTY, NC | 87 |
| Other Services | CASWELL COUNTY, NC | 6 |
| Other Services | CATAWBA COUNTY, NC | 132 |
| Other Services | CHATHAM COUNTY, NC | 56 |
| Other Services | CHEROKEE COUNTY, NC | 22 |
| Other Services | CHOWAN COUNTY, NC | 12 |
| Other Services | CLAY COUNTY, NC | 20 |
| Other Services | CLEVELAND COUNTY, NC | 50 |
| Other Services | COLUMBUS COUNTY, NC | 81 |
| Other Services | CRAVEN COUNTY, NC | 130 |
| Other Services | CUMBERLAND COUNTY, NC | 222 |
| Other Services | CURRITUCK COUNTY, NC | 8 |
| Other Services | DARE COUNTY, NC | 87 |
| Other Services | DAVIDSON COUNTY, NC | 64 |
| Other Services | DAVIE COUNTY, NC | 22 |
| Other Services | DUPLIN COUNTY, NC | 35 |
| Other Services | DURHAM COUNTY, NC | 303 |
| Other Services | EDGECOMBE COUNTY, NC | 54 |
| Other Services | FORSYTH COUNTY, NC | 344 |

Table K-4 (con't)
Availability of Firms by County in Market Area Other Services
North Carolina Disparity Study

| Procurement Category | County, State | Number of Vendors |
| :---: | :---: | :---: |
| Other Services | FRANKLIN COUNTY, NC | 47 |
| Other Services | GASTON COUNTY, NC | 128 |
| Other Services | GATES COUNTY, NC | 19 |
| Other Services | GRAHAM COUNTY, NC | 9 |
| Other Services | GRANVILLE COUNTY, NC | 48 |
| Other Services | GREENE COUNTY, NC | 11 |
| Other Services | GUILFORD COUNTY, NC | 553 |
| Other Services | HALIFAX COUNTY, NC | 51 |
| Other Services | HARNETT COUNTY, NC | 102 |
| Other Services | HAYWOOD COUNTY, NC | 66 |
| Other Services | HENDERSON COUNTY, NC | 81 |
| Other Services | HERTFORD COUNTY, NC | 21 |
| Other Services | HOKE COUNTY, NC | 19 |
| Other Services | HYDE COUNTY, NC | 26 |
| Other Services | IREDELL COUNTY, NC | 102 |
| Other Services | JACKSON COUNTY, NC | 57 |
| Other Services | JOHNSTON COUNTY, NC | 139 |
| Other Services | JONES COUNTY, NC | 10 |
| Other Services | LEE COUNTY, NC | 47 |
| Other Services | LENOIR COUNTY, NC | 122 |
| Other Services | LINCOLN COUNTY, NC | 36 |
| Other Services | MACON COUNTY, NC | 21 |
| Other Services | MADISON COUNTY, NC | 5 |
| Other Services | MARTIN COUNTY, NC | 21 |
| Other Services | MCDOWELL COUNTY, NC | 45 |
| Other Services | MECKLENBURG COUNTY, NC | 1089 |
| Other Services | MITCHELL COUNTY, NC | 16 |
| Other Services | MONTGOMERY COUNTY, NC | 41 |
| Other Services | MOORE COUNTY, NC | 101 |
| Other Services | NASH COUNTY, NC | 96 |
| Other Services | NEW HANOVER COUNTY, NC | 261 |
| Other Services | NORTHAMPTON COUNTY, NC | 25 |
| Other Services | ONSLOW COUNTY, NC | 68 |
| Other Services | ORANGE COUNTY, NC | 156 |
| Other Services | PAMLICO COUNTY, NC | 7 |

Table K-4 (con't)
Availability of Firms by County in Market Area Other Services
North Carolina Disparity Study

| Procurement Category | County, State | Number of Vendors |
| :---: | :---: | :---: |
| Other Services | PASQUOTANK COUNTY, NC | 87 |
| Other Services | PENDER COUNTY, NC | 37 |
| Other Services | PERQUIMANS COUNTY, NC | 6 |
| Other Services | PERSON COUNTY, NC | 36 |
| Other Services | PITT COUNTY, NC | 221 |
| Other Services | POLK COUNTY, NC | 7 |
| Other Services | RANDOLPH COUNTY, NC | 131 |
| Other Services | RICHMOND COUNTY, NC | 42 |
| Other Services | ROBESON COUNTY, NC | 113 |
| Other Services | ROCKINGHAM COUNTY, NC | 64 |
| Other Services | ROWAN COUNTY, NC | 82 |
| Other Services | RUTHERFORD COUNTY, NC | 74 |
| Other Services | SAMPSON COUNTY, NC | 68 |
| Other Services | SCOTLAND COUNTY, NC | 23 |
| Other Services | STANLY COUNTY, NC | 78 |
| Other Services | STOKES COUNTY, NC | 14 |
| Other Services | SURRY COUNTY, NC | 129 |
| Other Services | SWAIN COUNTY, NC | 3 |
| Other Services | TRANSYLVANIA COUNTY, NC | 38 |
| Other Services | TYRRELL COUNTY, NC | 4 |
| Other Services | UNION COUNTY, NC | 133 |
| Other Services | VANCE COUNTY, NC | 40 |
| Other Services | WAKE COUNTY, NC | 5209 |
| Other Services | WARREN COUNTY, NC | 8 |
| Other Services | WASHINGTON COUNTY, NC | 9 |
| Other Services | WATAUGA COUNTY, NC | 58 |
| Other Services | WAYNE COUNTY, NC | 281 |
| Other Services | WILKES COUNTY, NC | 41 |
| Other Services | WILSON COUNTY, NC | 104 |
| Other Services | YADKIN COUNTY, NC | 17 |
| Other Services | YANCEY COUNTY, NC | 17 |

Table K-5
Availability of Firms by County in Market Area
Goods
North Carolina Disparity Study

| Procurement Category | County, State | Number of Vendors |
| :---: | :---: | :---: |
| Goods | ALAMANCE COUNTY, NC | 187 |
| Goods | ALEXANDER COUNTY, NC | 137 |
| Goods | ALLEGHANY COUNTY, NC | 53 |
| Goods | ANSON COUNTY, NC | 13 |
| Goods | ASHE COUNTY, NC | 181 |
| Goods | AVERY COUNTY, NC | 66 |
| Goods | BEAUFORT COUNTY, NC | 160 |
| Goods | BERTIE COUNTY, NC | 54 |
| Goods | BLADEN COUNTY, NC | 74 |
| Goods | BRUNSWICK COUNTY, NC | 124 |
| Goods | BUNCOMBE COUNTY, NC | 220 |
| Goods | BURKE COUNTY, NC | 223 |
| Goods | CABARRUS COUNTY, NC | 105 |
| Goods | CALDWELL COUNTY, NC | 39 |
| Goods | CAMDEN COUNTY, NC | 3 |
| Goods | CARTERET COUNTY, NC | 158 |
| Goods | CASWELL COUNTY, NC | 10 |
| Goods | CATAWBA COUNTY, NC | 123 |
| Goods | CHATHAM COUNTY, NC | 50 |
| Goods | CHEROKEE COUNTY, NC | 12 |
| Goods | CHOWAN COUNTY, NC | 28 |
| Goods | CLEVELAND COUNTY, NC | 87 |
| Goods | COLUMBUS COUNTY, NC | 58 |
| Goods | CRAVEN COUNTY, NC | 114 |
| Goods | CUMBERLAND COUNTY, NC | 142 |
| Goods | CURRITUCK COUNTY, NC | 10 |
| Goods | DARE COUNTY, NC | 43 |
| Goods | DAVIDSON COUNTY, NC | 50 |
| Goods | DAVIE COUNTY, NC | 16 |
| Goods | DUPLIN COUNTY, NC | 27 |
| Goods | DURHAM COUNTY, NC | 171 |
| Goods | EDGECOMBE COUNTY, NC | 33 |
| Goods | FORSYTH COUNTY, NC | 133 |
| Goods | FRANKLIN COUNTY, NC | 35 |

Table K-5 (con't)
Availability of Firms by County in Market Area
Goods
North Carolina Disparity Study

| Procurement Category | County, State | Number of Vendors |
| :---: | :---: | :---: |
| Goods | GASTON COUNTY, NC | 45 |
| Goods | GATES COUNTY, NC | 7 |
| Goods | GRAHAM COUNTY, NC | 2 |
| Goods | GRANVILLE COUNTY, NC | 45 |
| Goods | GREENE COUNTY, NC | 16 |
| Goods | GUILFORD COUNTY, NC | 544 |
| Goods | HALIFAX COUNTY, NC | 38 |
| Goods | HARNETT COUNTY, NC | 62 |
| Goods | HAYWOOD COUNTY, NC | 30 |
| Goods | HENDERSON COUNTY, NC | 60 |
| Goods | HERTFORD COUNTY, NC | 18 |
| Goods | HOKE COUNTY, NC | 14 |
| Goods | HYDE COUNTY, NC | 9 |
| Goods | IREDELL COUNTY, NC | 81 |
| Goods | JACKSON COUNTY, NC | 16 |
| Goods | JOHNSTON COUNTY, NC | 81 |
| Goods | LEE COUNTY, NC | 32 |
| Goods | LENOIR COUNTY, NC | 83 |
| Goods | LINCOLN COUNTY, NC | 21 |
| Goods | MACON COUNTY, NC | 18 |
| Goods | MADISON COUNTY, NC | 1 |
| Goods | MARTIN COUNTY, NC | 27 |
| Goods | MCDOWELL COUNTY, NC | 40 |
| Goods | MECKLENBURG COUNTY, NC | 760 |
| Goods | MITCHELL COUNTY, NC | 16 |
| Goods | MONTGOMERY COUNTY, NC | 25 |
| Goods | MOORE COUNTY, NC | 56 |
| Goods | NASH COUNTY, NC | 84 |
| Goods | NEW HANOVER COUNTY, NC | 206 |
| Goods | NORTHAMPTON COUNTY, NC | 20 |
| Goods | ONSLOW COUNTY, NC | 53 |
| Goods | ORANGE COUNTY, NC | 63 |
| Goods | PAMLICO COUNTY, NC | 10 |
| Goods | PASQUOTANK COUNTY, NC | 44 |
| Goods | PENDER COUNTY, NC | 34 |

Table K-5 (con't)
Availability of Firms by County in Market Area
Goods
North Carolina Disparity Study

| Procurement <br> Category | County, State | Number of <br> Vendors |
| :--- | :--- | ---: |
| Goods | PERQUIMANS COUNTY, NC | 10 |
| Goods | PERSON COUNTY, NC | 19 |
| Goods | PITT COUNTY, NC | 124 |
| Goods | POLK COUNTY, NC | 2 |
| Goods | RANDOLPH COUNTY, NC | 96 |
| Goods | RICHMOND COUNTY, NC | 31 |
| Goods | ROBESON COUNTY, NC | 73 |
| Goods | ROCKINGHAM COUNTY, NC | 92 |
| Goods | ROWAN COUNTY, NC | 70 |
| Goods | RUTHERFORD COUNTY, NC | 46 |
| Goods | SAMPSON COUNTY, NC | 78 |
| Goods | SCOTLAND COUNTY, NC | 15 |
| Goods | STANLY COUNTY, NC | 97 |
| Goods | STOKES COUNTY, NC | 33 |
| Goods | SURRY COUNTY, NC | 158 |
| Goods | SWAIN COUNTY, NC | 3 |
| Goods | TRANSYLVANIA COUNTY, NC | 61 |
| Goods | TYRRELL COUNTY, NC | 8 |
| Goods | UNION COUNTY, NC | 126 |
| Goods | VANCE COUNTY, NC | 124 |
| Goods | WAKE COUNTY, NC | 1584 |
| Goods | WARREN COUNTY, NC | 7 |
| Goods | WASHINGTON COUNTY, NC | 16 |
| Goods | WATAUGA COUNTY, NC | 47 |
| Goods | WAYNE COUNTY, NC | 155 |
| Goods | WILKES COUNTY, NC | 60 |
| Goods | WILSON COUNTY, NC | 112 |
| Goods | YADKIN COUNTY, NC | 10 |
| Goods | YANCEY COUNTY, NC | 16 |
|  |  |  |


[^0]:    ${ }^{1}$ See City of Richmond v. J. A. Croson Company, 488 U.S. 469, 507-508; 109 S. Ct. 706; 102 L. Ed. 2d 854 (1989).
    ${ }^{2}$ Id.

[^1]:    ${ }^{3}$ Id.; see also H.B. Rowe Company, Inc. v. W. Lindo Tippett, 615 F.3d 233, 256-58 (4 $4^{\text {th }}$ Cir. 2010) (finding strong basis in evidence for remedial action for African American and American Indian firms, but no similar basis for inclusion of other minority groups (including women owned businesses) in the remedial policy).

[^2]:    ${ }^{4}$ Adarand v. Slater, 228 F.3d 1147 (10 ${ }^{\text {th }}$ Cir 2000), Sherbrooke Sodding v. MDOT (2001 US Dist Lexis 19565) (November 14, 2001), Gross Seed v. Nebraska Department of Roads, Case No. 4:00CV3073 (NB 2002), Western States Paving v. Washington DOT, Case No. Coo-5204-RBL (WA 2003).

[^3]:    ${ }^{5}$ While the governing statutes and regulations also variously use the terms "minority business," "minority owned business," "women owned business," and "M/WBE," for ease of discussion this Study will adopt the State's use of HUB as the primary designation, but will refer to M/WBE programs generically when addressing the legal considerations for all such programs.

[^4]:    ${ }^{6}$ Croson, 488 U.S. at 480.

[^5]:    ${ }^{10}$ H. B. Rowe, 615 F.3d 250.
    ${ }^{11}$ See generally, H.B. Rowe, 615 F.3d at 238-39, 247-48, 251-53.
    ${ }^{12}$ Id.

[^6]:    ${ }^{13}$ The State Board of Community Colleges is not technically a part of the Governor's Cabinet, although the members of the State Board are appointed by the Governor, and the North Carolina legislature. The University of North Carolina System's Board of Governors consists of members elected by the General Assembly, as well as special members, such as former board chairs and former state governors

[^7]:    ${ }^{14}$ North Carolina Procurement Manual § 1.3.13a Exemptions (P\&C).

[^8]:    ${ }^{15}$ North Carolina Procurement Manual § 1.3.13b Exemptions (SITP).

[^9]:    ${ }^{16}$ North Carolina Procurement Manual § 1.3.10 Waiver of Competition.
    ${ }^{17}$ North Carolina Procurement Manual § 1.3.1 Small Purchases.
    ${ }^{18}$ North Carolina Procurement Manual § 1.3.2(c).

[^10]:    ${ }^{19}$ North Carolina Procurement Manual § 1.3.5.
    ${ }^{20}$ https://ncadmin.nc.gov/statewide-term-contracts.

[^11]:    ${ }^{21}$ NCDIT, Statewide IT Contracts, https://it.nc.gov/resources/it-strategic-sourcing/statewide-it-contracts.
    ${ }^{22}$ North Carolina Procurement Manual § 1.3.6 Process for Obtaining Consultant Services.
    ${ }^{23}$ North Carolina Procurement Manual § 5.8 Best Value Procurements.

[^12]:    24 North Carolina Procurement Manual § 3.4.1 Solicitations \$5,000 and under.
    ${ }^{25}$ North Carolina Procurement Manual § 1.3.17 Preferences.
    ${ }^{26}$ Ibid.
    ${ }^{27}$ State Construction Manual § 101.

[^13]:    ${ }^{28}$ Ibid.
    ${ }^{29}$ Id. § 601.
    ${ }^{30}$ N.C.G.S. § 143-128.1. Construction management at risk contracts.

[^14]:    ${ }^{31}$ N.C.G.S. § 143-128. Requirements for certain building contracts.
    $3^{32}$ N.C.G.S. § 143-64.31(a). Declaration of public policy.
    33 North Carolina State Construction Manual § 305, Designer Selection for Minor Projects.

[^15]:    34 Id. § 304, Designer Selection for Major Projects.
    3501 NCAC 30D. North Carolina State Construction Manual § 304, Informal Designer Selection for Major Projects.

[^16]:    ${ }^{36}$ N.C.G.S. § 143-129(b).
    37 N.C.G.S. § 44A-26.
    ${ }^{38}$ North Carolina Procurement Manual § 4.4.6 Insurance Coverage.

[^17]:    ${ }^{39}$ N.C.G.S. § 143-134.1(a): Interest on Final Payments due to Prime Contractors; Payments to Subcontractors.
    ${ }^{40}$ N.C.G.S. § 143-134.1(b): Interest on Final Payments due to Prime Contractors; Payments to Subcontractors.
    ${ }^{41}$ N.C.G.S. § 143-135.8. Pre-qualification. North Carolina State Construction Manual, Section 60, Prequalification of Bidders.
    ${ }^{42} \mathrm{http}: / /$ eprocurement.nc.gov/Vendor/Entities Using EP.html.
    ${ }^{43}$ N.C.G.S. § 87-1.

[^18]:    ${ }^{44}$ N.C.G.S. § 87-10.
    45 N.C.G.S. § 143-128.4(a). Historically underutilized business defined; statewide uniform certification.

[^19]:    ${ }^{46}$ N.C.G.S. § 143-128.4(b). Historically underutilized business defined; statewide uniform certification.
    47 01 NCAC 44A . 0204.

[^20]:    48 NCDOA And NCDOT Business Development Program FY 18-19 Executive Summary: 3.

[^21]:    49 N.C.G.S. § 143-48.(a) State policy; cooperation in promoting the use of small contractors, minority contractors, physically handicapped contractors, and women contractors; purpose; required annual reports.
    ${ }^{50}$ State of North Carolina, Department of Natural and Cultural Resources, NC Aquarium, ITB \#46-20-1021, July 29, 2019.
    ${ }^{51}$ North Carolina Procurement Manual § 5.13 Tie Bids.
    $5^{2}$ N.C.G.S. § 143-128.2(a). Minority business participation goals.

[^22]:    ${ }^{53}$ State of North Carolina, Governor Roy Cooper, Executive Order No. 25 (November 2017).

[^23]:    54 N.C.G.S. § 143-128.2(e). Minority business participation goals. 5501 NCAC 30 I . 0305 State Construction Office Responsibilities.
    ${ }_{56}$ N.C.G.S. § 143-131 (b).

[^24]:    ${ }^{57}$ N.C.G.S. § 143-128.2(f). Minority business participation goals.
    ${ }^{58}$ N.C.G.S. § 143-128.2(c). Minority business participation goals.

[^25]:    ${ }^{59}$ N.C.G.S. § 143-128.2(c). Minority business participation goals.
    ${ }^{60}$ N.C.G.S. § 143-128(d). Requirements for certain building contracts.
    ${ }^{61}$ N.C.G.S. § 143-128.2(d). Minority business participation goals.

[^26]:    ${ }^{62}$ NCDOA And NCDOT Business Development Program FY 18-19 Executive Summary: 6-10.

[^27]:    ${ }^{63}$ 01 NCAC 30 I . 0304 Office for Historically Underutilized Businesses Responsibilities. This list was renumbered for brevity.

[^28]:    64 North Carolina Procurement Manual, 2013, R.1.4 Historically Underutilized Business (HUB).

[^29]:    ${ }^{65}$ Governor's Advisory Council for Historically Underutilized Businesses 2017-18 Fiscal Year Summary.

[^30]:    ${ }^{66}$ N.C.G.S. § 143-48(c), (d). State policy; cooperation in promoting the use of small contractors, minority contractors, physically handicapped contractors, and women contractors; purpose; required annual reports.

[^31]:    ${ }^{67}$ D. Burman. "Predicate Studies: The Seattle Model," Tab E of 11-12 Minority and Women Business Programs Revisited (ABA Section of Public Contract law, Oct. 1990)
    ${ }^{68}$ City of Richmond v. J.A. Croson Company, 488 U.S. 469, 709 S. Ct. 706 (1989)

[^32]:    69 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.

[^33]:    Griffin \& Strong, P.C. 2020

[^34]:    ${ }^{70}$ So, for example, if there was one Asian American owned prime (\$100) with one nonminority subcontractor (\$30) and two Asian subcontractors had $\$ 20$ in subcontracts, then in total utilization: $(\$ 100-\$ 50)=\$ 50$ attributed to Asian American prime dollars and $\$ 20$ attributed to Asian American subcontractor dollars for a total of $\$ 70$ paid to Asian American owned firms.

[^35]:    ${ }^{71}$ See: Ayres, Ian, and Fredrick E. Vars. 1998, "When does private discrimination justify public affirmative action?" Columbia Law Review, 98: 1577-1641.
    ${ }^{72}$ SBO data are publicly available at http://www.census.gov/programs-surveys/sbo/data.html. While 2015 data are available, as of $3 / 3 / 2019$ firm total revenue data were not yet made publicly available.
    ${ }^{73}$ SBO data are publicly available at http://www.census.gov/programs-surveys/sbo/data.html The SBO data will soon be replaced by the Annual Business Survey (ABS). As of publication of this analysis, ABS data were not yet made available by the US Census Bureau.
    ${ }^{74}$ The percentages do not "'add-up" to one, as the women ownership category is not " mutually exclusive" of the other race/ethnicity categories.
    ${ }^{75}$ This can be ascertained by simply computing the ration of each MWBEs firm share to total revenue share. For example, in the case of firms owned by African-Americans, this ratio is approximately . 0072 percent, in contrast to approximately 34 percent for firms owned by Non-MWBEs. In this context, relative to firms owned by Non-MWBEs, firms owned by African-Americans are far more" revenue underrepresented" with respect to their firm share .

[^36]:    ${ }^{76}$ This ratio can be viewed as an index of underrepresentation, as it measures the distance between a firm's representation in the market relative to its share of market revenue. A value greater than unity indicates underrepresentation, a value equal to unity indicates parity, and a value less then unity indicates overrepresentation. ${ }^{77}$ For the construction sector, 2013 SBO data do not provide detailed disaggregated race/ethnicity detail to the same extent as for all sectors.

[^37]:    ${ }^{78}$ ACS data are publicly available at https://usa.ipums.org/usa/. See: Steven Ruggles, Sarah Flood, Ronald Goeken, Josiah Grover, Erin Meyer, Jose Pacas and Matthew Sobek. IPUMS USA: Version 10.0 [dataset]. Minneapolis, MN: IPUMS, 2020. https://doi.org/10.18128/Do10.V10.o
    ${ }^{79}$ 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.

[^38]:    ${ }^{80}$ 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.
    ${ }^{81}$ Marion, Justin. 2009. "Firm Racial Segregation and Affirmative Action in the Highway Construction Industry." Small Business Economics 33: Article 441.

[^39]:    ${ }^{82}$ 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.
    ${ }^{83}$ 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 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 $m=1 \ldots J, Y_{i}=m$ 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 $\operatorname{Pr}$ (
    $\left.Y_{i}=m \mid \mathbf{X}\right)=\Phi\left(\tau_{m}-\mathbf{X} \beta\right)-\Phi\left(\tau_{m-1}-\mathbf{X} \beta\right)$, 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.
    ${ }^{84}$ 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.

[^40]:    ${ }^{85}$ See: Bradley Efron and Robert J. Tibshirani. 1993. An Introduction to the Bootstrap, Chapman and Hall, NY.
    ${ }^{86}$ See: Silvia Goncalves and Halbert Non-MWBE. 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.
    ${ }^{87}$ 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.

[^41]:    ${ }^{88}$ Pseudo- $R^{2}$ is not to be interpreted as the $R^{2}$ in standard Ordinary Least Squares (OLS) estimation, as OLS proceeds my minimizing variance to get parameter estimates. Logit specifications are likelihood-based, and higher values of Pseudo- ${ }^{2}$ indicate that the specified model is an increasingly better alternative to a null model with only an intercept.

[^42]:    ${ }^{89}$ See: Bates, Timothy. 2009 "Utilizing Affirmative Action in Public Sector Procurement as a Local Economic Development Strategy." Economic Development Quarterly, 23: pp. 180-192., 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., and Shelton, Lois M., and Maria Minniti. 2018. "Enhancing product market access: Minority Entrepreneurship, Status Leveraging, and Preferential Procurement Programs." Small Business Economics, 50: pp. 481-498.

[^43]:    ${ }^{1}$ See also Adarand II, 515 U.S. at 212 (same).

[^44]:    ${ }^{2}$ Adarand II, 515 U.S. at 227; Croson, 488 U.S. at 496-97.
    ${ }^{3}$ Croson, 488 U.S. at 498.
    ${ }^{4}$ Engineering Contractors Association of South Florida v. Metropolitan Dade County, 122 F.3d 895, 907 (11th Cir. 1997) ("[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.").
    ${ }^{5}$ Croson, 488 U.S. at 498-506.

[^45]:    ${ }^{6}$ Croson, 488 U.S. at 500 (quoting Wygant v. Jackson Bd. of Educ., 476 U.S. 267, 277, 106 S.Ct. 1842, 1849 (1986)).
    ${ }^{7}$ Croson, 488 U.S. at 500-01.
    ${ }^{8}$ See Concrete Works, 36 F.3d 1513 (10th Cir. 1994).
    ${ }^{9}$ Id.
    ${ }^{10}$ Citing Adarand III, 228 F.3d at 1166.

[^46]:    ${ }^{11}$ 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.").
    ${ }^{12}$ Croson, 488 U.S. at 501.
    ${ }^{13}$ 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 Coral Construction Co. v. King County, 941 F.2d 910, 919 (9 ${ }^{\text {th }}$ Cir. 1991)("While anecdotal evidence may suffice to prove individual claims of discrimination, rarely, if ever, can such evidence show a systematic pattern of discrimination necessary for the adoption of an affirmative action plan.").

[^47]:    ${ }^{14}$ Associated General Contractors of America, San Diego Chapter v. California D.O.T., 713 F.3d 1187, 119697 ( $9^{\text {th }}$ Cir. 2013) ("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).
    ${ }^{15}$ Croson, 488 U.S. at 509.
    ${ }^{16}$ See e.g., Associated General Contractors v. California D.O.T., 713 F.23d at 1197-1199.
    ${ }^{17}$ 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).

[^48]:    ${ }^{18}$ 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.
    ${ }^{19} 615$ F.3d at 244.
    ${ }^{20} 713$ F.3d at 1191-92. Cf. Engineering Contractors v. Metropolitan Dade, 122 F.3d 895 (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).
    ${ }^{21}$ See Associated General Contractors v. California D.O.T., 713 F. 23 d 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).
    ${ }^{22} 473$ F.3d at 718.
    ${ }^{23}$ Id. at 5 . See also Midwest Fence, 840 F.3d at 950 (discussing and approving custom census method).

[^49]:    ${ }^{24} 615$ 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.C. 706.
    ${ }^{25} 713$ F.23d 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.
    ${ }^{26}$ Id. at 244. The disparity index is calculated by dividing the percentage of available M/WBE participation (amount of contract dollars) by the percentage of M/WBEs in the relevant population of local firms. A disparity index of one (1.0) demonstrates full M/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.
    ${ }^{27}$ Id.

[^50]:    ${ }^{28}$ See Associated General Contractors v. California D.O.T., 713 F.23d 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).
    ${ }^{29}$ Id. at 245.
    ${ }^{30}$ AGC v. Coal. for Economic Equity, 950 F.2d 1401, 1414 (9th Cir. 1991).
    ${ }^{31}$ Contractors Ass'n., 6 F.3d at 1005.
    ${ }^{32} 615$ F.3d at 244-45.
    ${ }^{33} 615$ F.3d at 244-46. See also, supra, analysis using standard deviations.

[^51]:    ${ }^{34}$ Id. at pp. 2-10.
    ${ }^{35}$ Croson, 488 U.S. at 504.
    ${ }^{36}$ Pre-enactment evidence refers to evidence developed prior to the enactment of an M/WBE program by a governmental entity. Such evidence is strong predicate for the decision to implement such a program in the first place, and a lack of relevant pre-enactment evidence of discrimination may make it difficult for a governmental entity to satisfy the standards established in Croson. Post-enactment evidence, in contrast,

[^52]:    is that which has been developed since the affirmative action program was enacted and therefore was not specifically relied upon as a rationale for the government's race/gender-conscious efforts.
    ${ }^{37}$ See, e.g., Contractors Assn., 6 F.3d, at 1003-04 (3rd Cir. 1993).
    ${ }^{38}$ See also Sherbrooke Turf, 345 F.3d at 972 (citing Croson, 488 U.S. at 496).
    ${ }^{39}$ See also Croson, 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."); Adarand III, at 1177.

[^53]:    ${ }^{40}$ Sherbrooke Turf, 345 F. 3 d 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.").
    ${ }^{41}$ Podberesky, 38 F.3d at 160 ("The program thus could remain in force indefinitely based on arbitrary statistics unrelated to constitutionally permissible purposes.").
    ${ }^{42} 615$ F.3d at 239.
    ${ }^{43}$ Id. at pp. 34-49, and 53-62.

[^54]:    Griffin \& Strong, P.C. 2020

[^55]:    Griffin \& Strong, P.C. 2019

[^56]:    Griffin \& Strong, P.C. 2020

[^57]:    Griffin \& Strong, P.C. 2020

[^58]:    Griffin \& Strong, P.C. 2020

[^59]:    Griffin \& Strong, P.C. 2020

[^60]:    Griffin \& Strong, P.C. 2020

[^61]:    Griffin \& Strong, P.C. 2020

[^62]:    ${ }^{1}$ The department titles were not edited. For example, it could be assumed that DOA means NC Department of Administration.

[^63]:    ${ }^{1}$ Meredith Schwartz maintains the data on the DOA, Military and Veteran Affairs, and State Elections and Ethics Boards.
    ${ }^{2}$ Note: NCDOT study is current underway with GSPC. The discussion was to keep the NCDOT study to cover $\S 136$ per its scope of work and keep the NCDOA study to cover $\S 143$.

