



HARFORD COUNTY MARYLAND

DISPARITY STUDY REPORT

JUNE 2023

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I. INTRODUCTION

A. Scope of Work

In 2021, the Government of Harford County, MD (hereafter “County”) contracted with Griffin & Strong, P.C. (“GSPC”) to conduct a disparity study (“Study”) to determine the utilization by Harford County of Minority and Woman-owned Business Enterprises (“M/WBE”) that are qualified, willing, and able to bid in the County’s procurement processes.

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 County has been a passive or active participant in any identified discrimination.

Toward achievement To achieve these ends, GSPC has analyzed the prime contracting and subcontracting activities for the County’s purchases of Construction, Architecture and Engineering (“A&E”), Professional Services, Other Services, and Goods during the five (5) year Study Period FY2015 through FY2019 (“Study Period”).

B. Objectives

The principal questions of this Study were:

Is there a statistically significant disparity in the relevant geographic market between the percentage of qualified minority and Female owned firms (“M/WBE”) willing and able to provide goods or services to the County in each of the Industry Categories of contracts and the percentage of dollars spent by the County with such firms.

If a statistically significant disparity exists, have factors other than race and gender been ruled out as the cause of that disparity?

Can any disparities be adequately remedied with race and gender neutral remedies?

If race and gender neutral remedies are not sufficient, does the evidence from the Study legally support a race and/or gender conscious remedial program?

Are the proposed remedies narrowly tailored to the strong basis in evidence from the disparity study?

C. 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 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;
- Reviewing policy and procurement processes and M/WBE program analysis;
- Collecting electronic data, inputting manual data, organizing, and cleaning data, as well as filling any data gaps;
- Conducting geographic and product 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 analysis;
- Collecting and analyzing anecdotal evidence;
- Establishing findings of fact regarding the existence and nature of marketplace discrimination and/or other barriers to M/WBE participation in Harford County contracts; and
- Preparing a final report that identifies and assesses the efficacy of various race- and gender-neutral and narrowly tailored race- and gender-based remedies if indicated by the findings.

Study definitions are contained in Appendix H.

D. Report Organization

This report is organized into the following sections, which provide the results of GSPC's analytical findings and recommendations for the County. In addition to this introductory chapter, this report includes:

- Chapter II, which presents the Executive Summary of Findings and Recommendations;
- Chapter III, which is an overview of the legal framework and basis for the Study;
- Chapter IV, which provides a review of the County's purchasing policies, practices, and procedures;
- Chapter V, which presents the methodology used in the collection of statistical data from the County and the analyses of the data regarding relative M/WBE Availability and Utilization analyses, and includes a discussion on levels of disparity for Harford County's prime and subcontractors;
- Chapter VI, which analyzes whether present or ongoing effects of past discrimination are affecting the Harford County marketplace and
- Chapter VII, which outlines the qualitative analyses, the analysis of anecdotal data collected from the online survey, personal interviews, focus groups, and public meetings.

II. EXECUTIVE SUMMARY OF FINDINGS AND RECOMMENDATIONS

This chapter presents the findings and recommendations resulting from the Study for Harford County, Maryland, related to its procurement activities in the Industry Categories of Construction, Architecture & Engineering (A&E), Professional Services, Other Services, and Goods for FY2015-2019.

As outlined in the Legal Analysis, the courts have indicated that for race-based or gender-based preference programs to be maintained there must be a strong basis in the evidence for the establishment of such programs or the continuation of existing programs. As the detailed findings below will demonstrate, GSPC found statistically significant underutilization of Minority owned firms and Non-minority Female owned firms in each of the five (5) Industry Categories that GSPC analyzed. The exceptions will be discussed in the findings below.

A regression analysis was performed and GSPC found that there was evidence to indicate disparities by race, ethnicity, or gender status of the firm owners even after controlling for capacity and other race- and gender-neutral factors. This statistical evidence found support in the anecdotal evidence of the experiences of firms in the County's marketplace.

A. Legal Findings

FINDING 1: LEGAL SUPPORT FOR RACE AND GENDER CONSCIOUS PROGRAM FOR STUDY GROUPS

Consistent with the “narrow tailoring” aspect of the strict scrutiny analysis discussed in the Legal Chapter, the Study shows that the County's limited use of targeted race and gender-neutral measures to try to increase utilization of M/WBE firms has not been effective in resolving or significantly reducing the identified disparities.¹ Accordingly, the County has a basis to utilize more robust and varied race and gender-neutral policies, and also the factual predicate for some race- and gender-conscious policies, toward that goal.²

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

Lastly, having obtained statistical and anecdotal evidence of disparities that are race, ethnicity, and gender specific, the County can ensure that the more robust remedies considered as a result of this Study

¹ See generally City of Richmond v. J. A. Croson Company, 488 U.S. 469, 507-508; 109 S. Ct. 706 (1989) (discussing factual predicate for race and/or gender conscious remedies or policies).

² Id.

can be limited to minority groups for which underutilization and an inference of discrimination has been identified.³

B. Policy Findings

FINDING 2: PROFESSIONAL SERVICES

In practice the County procures Construction-related professional services through two primary processes. First, for smaller projects, the County uses an on-call process. Typically, firms stay on-call lists for three to five years. The second procurement method, used for larger projects, is to issue an RFP seeking SOQs and pricing information for a particular project.

FINDING 3: CONSTRUCTION SERVICES

The County has occasionally used design build for a few smaller Construction projects, in addition to traditional low bid Construction procurement. The County has not used Construction manager at risk (CMAR). The County has also used on-call contracts in Construction for repair work and other small Construction projects.

FINDING 4: BONDING AND INSURANCE

Staff interviews indicated that threshold for payment and performance bonds is \$100,000. Staff did not report complaints about bonding requirements, or a practice of waiving bond requirements. About 13.5% of MBE survey respondents and one WBE survey respondent reported bonding as a barrier. County procurement staff did not report any complaints about insurance requirements. About 5.2% of MBE survey respondents and 2.8% WBE survey respondent reported insurance as a barrier.

FINDING 5: PROMPT PAYMENT

The Maryland prompt payment statutes provide that payment on a public contract must be made within 30 days of the date upon which payment becomes due, and subcontractors must be paid by primes within 10 days of the prime receiving its payment. Staff interviews indicated that prompt payment was not an issue. Two out of 19 (10.5%) MBE survey respondents and four out of 17 (23.5%) WBE survey respondents reported being paid by the County after 30 days. Two out of 19 (10.5%) MBE survey respondents and four out of 17 (23.5%) WBE survey respondents reported being paid by prime contractors after 30 days. However, in both survey questions there were about a quarter of the responses to the prompt payment questions than to other questions.

³ *Id.*; see also *H.B. Rowe Company, Inc. v. W. Lindo Tippett*, 615 F.3d 233, 256-58 (4th Cir. 2010) (finding strong basis in evidence for remedial action for African American and Native American firms, but no similar basis for inclusion of other minority groups (including Women-owned businesses) in the remedial policy).

FINDING 6: VENDOR REGISTRATION AND PREQUALIFICATION

The County does not keep a vendor registration list of firms interested in pursuing County projects. The County uses eMaryland Marketplace Advantage ([eMMA](#)) to publicize formal bids by County procurement. Vendors registered on eMMA receive notices to go to the County website. The County requires pre-qualification of contractors for Construction projects valued at \$100,000 or more. Only pre-qualified firms can submit a bid and have to be pre-qualified before bid opening. The County does not maintain a list of professional services firms that have submitted qualifications parallel to the list of pre-qualified Construction firms. About 23.9% of MBE survey respondents and 9.8% WBE survey respondent reported pre-qualification as a barrier.

FINDING 7: CERTIFICATION

The County does not certify M/WBEs or SBEs. However, the State of Maryland certifies M/WBEs, DBEs, and SBEs, and Harford is near the City of Baltimore that certifies M/WBEs.

FINDING 8: INCENTIVES AND GOALS

The County has no M/WBE or SBE set asides, bid preferences, or goals. The County does have a contract nondiscrimination ordinance. The County does have incentives for purchases from sheltered workshops for the handicapped. The County does not maintain a Disadvantaged Business Enterprise (DBE) program. Harford Transit and road projects are the primary places for application of DBE goals for the County.

FINDING 9: REPORTING M/WBE UTILIZATION

The County did not track or report M/WBE or SBE utilization during the Study Period. However, in the past few years a contract analyst used the MDOT certification list and manually went through County purchasing data to get a sense of County spending with M/WBEs. The County did not produce annual reports from this exercise.

FINDING 10: BUSINESS DEVELOPMENT EFFORTS

The County does not provide direct management and technical assistance to firms. However, one of the five goals of the County Office of Community & Economic Development is Entrepreneurial Innovation: maximize co-located services in support of business startups and entrepreneurs. In pursuit of this goal the County Office of Community & Economic Development has partnered with a number of business development organizations in the County. The County no longer provides small business loans.

C. Quantitative Findings

FINDING 11: RELEVANT GEOGRAPHIC AND PRODUCT MARKETS

The Study compares the availability and utilization of firms in a common area, the Relevant Geographic Market, where about 75% of Harford spending with vendors takes place. The Geographic Relevant Market was Washington-Baltimore-Arlington, DC-MD-VA-WV-PA Combined Statistical Area.

- In Construction, 94.15%%
- In A&E, 89.64%
- In Professional Services, 89.84%
- In Other Services, 83.79%
- In Goods, 60.74%

FINDING 12: AVAILABILITY

The measures of availability utilized in this Study incorporate all of the criteria of availability required by City of Richmond v. J.A. Croson Co., 488 U.S. 469 (1989).

- The firm does business within an industry group from which Harford 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 Harford.

The firms used to calculate Availability came from the Master Vendor File in the Relevant Market Area. GSPC found that firms were available to provide goods and services to Harford as reflected in the following percentages by each race, ethnicity, and gender group (Table 1).

**Table 1. Summary of Availability By Work Category
In the Relevant Market
Harford Disparity Study**

| Business Ownership Classification | Construction | A&E | Professional Services | Other Services | Goods |
|--|---------------------|----------------|------------------------------|-----------------------|----------------|
| Black American | 15.48% | 9.53% | 20.57% | 12.77% | 3.75% |
| Asian American | 1.79% | 5.12% | 2.00% | 2.05% | 1.16% |
| Hispanic American | 5.36% | 1.86% | 1.33% | 1.61% | 0.45% |
| Native American | 1.07% | 0.93% | 0.76% | 1.43% | 0.36% |
| TOTAL MBE | 23.69% | 17.44% | 24.67% | 17.85% | 5.71% |
| Nonminority Female | 5.48% | 6.28% | 1.71% | 3.78% | 3.39% |
| TOTAL M/WBE | 29.17% | 23.72% | 26.38% | 21.64% | 9.10% |
| NON-M/WDBE | 70.83% | 76.28% | 73.62% | 78.36% | 90.90% |
| TOTAL FIRMS | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |

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FINDING 13: M/WBE PRIME UTILIZATION

As Table 2 below shows, Harford paid a total of \$145.8 million in prime Construction spending in the Relevant Market during the Study Period, and \$6.7 million of this amount, or 4.62% was paid with M/WBE firms as prime contractors. M/WBEs were paid 1.97% of A&E Services, 2.20% of Professional Services, 1.02% of Other Services, and 9.02% of Goods. M/WBEs won 3.59% of prime payments across all purchasing categories.

Table 2: Summary of Prime Utilization by Work Category
In the Relevant Market
(Based upon Payments FY2017-FY2021)
Harford Disparity Study

| Business Ownership Classification | Construction | A&E | Professional Services | Other Services | Goods | TOTAL |
|-----------------------------------|-----------------------|----------------------|-----------------------|-----------------------|----------------------|-----------------------|
| | (\$) | (\$) | (\$) | (\$) | (\$) | (\$) |
| Black American | \$ 113,125 | \$ - | \$ 629,132 | \$ - | \$ - | \$ 742,258 |
| Asian American | \$ 388,906 | \$ - | \$ - | \$ - | \$ 3,536,247 | \$ 3,925,152 |
| Hispanic American | \$ - | \$ - | \$ - | \$ 4,000 | \$ - | \$ - |
| Native American | \$ 5,180 | \$ - | \$ 340 | \$ - | \$ - | \$ 5,520 |
| TOTAL MINORITY | \$ 1,467,380 | \$ - | \$ 629,472 | \$ 4,000 | \$ 3,536,247 | \$ 5,637,098 |
| Nonminority Female | \$ 5,272,119 | \$ 623,171 | \$ 21,593 | \$ 1,745,560 | \$ 2,806,252 | \$ 10,468,696 |
| TOTAL M/WBE | \$ 6,739,499 | \$ 623,171 | \$ 651,065 | \$ 1,749,560 | \$ 6,342,499 | \$ 16,105,795 |
| NON-M/WBE | \$ 139,141,000 | \$ 30,958,467 | \$ 28,900,367 | \$ 169,352,832 | \$ 63,958,265 | \$ 432,310,929 |
| TOTAL FIRMS | \$ 145,880,499 | \$ 31,581,638 | \$ 29,551,432 | \$ 171,102,392 | \$ 70,300,764 | \$ 448,416,724 |
| Business Ownership Classification | Construction | A&E | Professional Services | Other Services | Goods | TOTAL |
| | (%) | (%) | (%) | (%) | (%) | (%) |
| Black American | 0.08% | 0.00% | 2.13% | 0.00% | 0.00% | 0.17% |
| Asian American | 0.27% | 0.00% | 0.00% | 0.00% | 5.03% | 0.88% |
| Hispanic American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Native American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| TOTAL MINORITY | 1.01% | 0.00% | 2.13% | 0.00% | 5.03% | 1.26% |
| Nonminority Female | 3.61% | 1.97% | 0.07% | 1.02% | 3.99% | 2.33% |
| TOTAL M/WBE | 4.62% | 1.97% | 2.20% | 1.02% | 9.02% | 3.59% |
| NON-M/WBE | 95.38% | 98.03% | 97.80% | 98.98% | 90.98% | 96.41% |
| TOTAL FIRMS | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |

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FINDING 14: M/WBE SUBCONTRACTOR UTILIZATION

M/WBEs received 4.69% of A&E subcontracting paid dollars (Table 3), the only area with reported M/WBE subcontracting dollars. M/WBEs received 0.45% of reported subcontract dollars across all procurement categories, excluding Goods. There were no reported subcontract dollars in Goods.

**Table 3: Summary of Subcontractor Utilization
In the Relevant Market
(Based upon Payments FY2017-FY2021)
Harford Disparity Study**

| Business Ownership Classification | Construction | A&E | Professional Services | Other Services | TOTAL |
|-----------------------------------|---------------------|-------------------|-----------------------|-------------------|---------------------|
| | (\$) | (\$) | (\$) | (\$) | (\$) |
| Black American | \$ - | \$ - | \$ - | \$ - | \$ - |
| Asian American | \$ - | \$ - | \$ - | \$ - | \$ - |
| Hispanic American | \$ - | \$ - | \$ - | \$ - | \$ - |
| Native American | \$ - | \$ - | \$ - | \$ - | \$ - |
| TOTAL MINORITY | \$ - | \$ - | \$ - | \$ - | \$ - |
| Nonminority Female | \$ - | \$ 40,994 | \$ - | \$ - | \$ 40,994 |
| TOTAL M/WBE | \$ - | \$ 40,994 | \$ - | \$ - | \$ 40,994 |
| NON-M/WBE | \$ 8,016,496 | \$ 832,772 | \$ 5,200 | \$ 122,172 | \$ 8,976,640 |
| TOTAL FIRMS | \$ 8,016,496 | \$ 873,766 | \$ 5,200 | \$ 122,172 | \$ 9,017,634 |
| Business Ownership Classification | Construction | A&E | Professional Services | Other Services | TOTAL |
| | (%) | (%) | (%) | (%) | (%) |
| Black American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Asian American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Hispanic American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Native American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| TOTAL MINORITY | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Nonminority Female | 0.00% | 4.69% | 0.00% | 0.00% | 0.45% |
| TOTAL M/WBE | 0.00% | 4.69% | 0.00% | 0.00% | 0.45% |
| NON-M/WBE | 100.00% | 95.31% | 100.00% | 100.00% | 99.55% |
| TOTAL FIRMS | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |

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FINDING 15: SUMMARY OF DISPARITY ANALYSIS FOR FY2017-FY2021

Tables 4 and 5 below indicate those M/WBE groups where a statistically significant disparity (X) was found in Prime Utilization for Construction, A&E Services, Professional Services, Other Services, and Goods. There was underutilization in prime contracts for all M/WBEs groups, except Asian American firms and Nonminority Woman firms in Goods (Table 4). There was underutilization in Subcontractor Utilization for all M/WBEs groups, for all procurement categories (except Goods) (Table 5). Non-M/WBEs were overutilized in Prime Utilization and Subcontractor Utilization.

Disparity was also examined by eliminating larger prime projects. There was disparity for all M/WBE groups for prime payments less than \$500,000 and less than \$1 million for all procurement categories, except that Asian Americans were also overutilized in Construction for projects less than \$500,000 and less than \$1,000,000.

Table 4: Summary of Statistically Significant Underutilization of M/WBEs in Prime Contracting
Harford Disparity Study

| Business Owner Classification | Construction | A&E | Professional Services | Other Services | Goods |
|--------------------------------------|---------------------|----------------|------------------------------|-----------------------|--------------|
| African American | X | X | X | X | X |
| Asian American | X | X | X | X | |
| Hispanic American | X | X | X | X | X |
| Native American | X | X | X | X | X |
| Nonminority Woman | X | X | X | X | |

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Table 5: Summary of Statistically Significant Underutilization of M/WBEs in Subcontractor Utilization
Harford Disparity Study

| Business Owner Classification | Construction | A&E | Professional Services | Other Services |
|--------------------------------------|---------------------|----------------|------------------------------|-----------------------|
| African American | X | X | X | X |
| Asian American | X | X | X | X |
| Hispanic American | X | X | X | X |
| Native American | X | X | X | X |
| Nonminority Woman | X | X | X | X |

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D. Anecdotal Findings

FINDING 16: REGISTRATION, CERTIFICATION, & BIDDING OUTREACH/SUPPORT

Of the 231 business owners queried from the Survey of Business Owners, 38.1% answered “No” when asked “Is your company a certified minority, Woman, Disadvantaged, or Small business?” Responding in the affirmative were 61.9%. It should be noted that the County does not certify M/WBEs or SBEs but has recently used Maryland Department of Transportation certification to track spending with M/WBEs. Of the 88 business owners who identified that they were not certified with the County, 34.1%, or just over one-third, said they did not understand the certification process. This included 60% of Black-owned firms, 42.4% of Woman-owned firms, and 23.5% of Non-minority-owned firms.

When asked if their respective companies were registered with eMaryland Marketplace, the statewide online registry that is used to keep a list of vendors interested in pursuing County projects, more than one-third, 35.1%, said “No.” This included 42.3% of Woman-owned firms, 35.9% of Non-minority-owned firms, and 26.9% of Black-owned firms. Also, 19% said they were not sure.

Of the 125 businesses that acknowledged that they were not registered with eMaryland Marketplace, 58.4% told GSPC they were unaware there was a registry. This included 72% of Black-owned firms, 54.2% of Woman-owned firms, and 50% of Non-minority-owned firms. Among that same group of unregistered business owners, 20.8% said they did not know how to register.

FINDING 17: EDUCATION OF THE BIDDING PROCESS

Of those polled, 17.7% said limited knowledge of County procurement policies and procedures prevented them from doing business with the County. This included 20.9% of Black-owned firms, 18.3% of Woman-owned firms, and 14.1% of Non-minority firms.

FINDING 18: CONTRACT SIZING

Business owners responding to the Survey at a rate of 11.3%, stated that very large contracts presented an obstacle to working with the County, while 9.1% of those polled said that contracts being too expensive to bid prevented them from doing business with Harford County.

FINDING 19: EXCESSIVE PAPERWORK/ INSUFFICIENT TIME TO BID

Excessive paperwork was among the barriers that prevented companies from doing business with the County with 17.3% of respondents agreeing. This included 23.4% of Black-owned firms. Just over 10% of survey respondents, 10.8%, stated they had limited time to prepare bid packages or quotes.

FINDING 20: ACCOUNTABILITY TO UTILIZE M/WBES

More than a third of survey respondents, 35.5%, agreed to some degree that sometimes a prime contractor will contact a M/WBE to ask for quotes without ever giving the proposal sufficient review to consider awarding the subcontracting firm. This included 18.6% who agreed and 16.9% who strongly agreed with the statement. 61.2% of Black-owned firms and 26.8% of Woman-owned firms agreed to some degree.

FINDING 21: UNFAIR COMPETITION WITH LARGE FIRMS

Large firms were identified as a barrier to doing business with the County. Nearly a quarter of respondents to the Survey of Business Owners (24.2%) said that unfair competition with larger firms kept them from winning bids with the County. That included 34.3% of Black-owned firms, 16.9% of Woman-owned firms, and 15.6% of Non-minority-owned firms.

FINDING 22: INFORMAL NETWORKS

Nearly half of those polled, 48.9%, reported their belief that an informal network of prime and subcontractors doing business with the County monopolizes the public contracting process. Among those polled include 67.2% of Black owned firms, 47.9% of Woman-owned firms, and 29.7% of Non-minority-owned firms.

FINDING 23: BID SPECIFICATIONS

More than 40% of Survey respondents agreed to some extent that double standards in qualifications and work performance make it difficult for Minority owned, Woman owned, Disadvantaged, or Small businesses to win bids or contracts. 22.1% of those polled strongly agreed, including 46.3% of Black-owned firms and 12.7% of Woman-owned firms. Meanwhile 18.6% merely agreed (21.1% of Woman-owned firms, 19.4% of Black owned firms, and 15.6% of Non-minority-owned firms).

E. Private Sector Findings***FINDING 24: M/WBE REVENUE SHARES***

In the Harford County Market Area, Non-M/WBE firms account for approximately 38% of revenue earned by all firms. This share is of a substantial order of magnitude higher than any of the reported revenues shares for non-White firms. The highest revenue earned by M/WBE are Woman-owned firms, which is approximately 7%. In general, all M/WBEs have estimated revenue shares far smaller than their firm representation shares.

FINDING 25: SELF-EMPLOYMENT LIKELIHOOD

Relative to Non-M/WBEs, African Americans and Women are less likely to be self-employed. Within the Construction sector, Woman, African Americans, Native Americans, Pacific Islanders, and Asian Americans are less likely to be self-employed.

FINDING 26: NON- M/WBE DOMINANCE IN BUILDING PERMITS

GSPC estimates suggest that firms not classified as M/WBEs – or Non-M/WBEs – accounted for approximately 98% of building permits in the Harford County Market Area. The almost complete dominance of Non-M/WBEs in securing building permits suggests the presence of private sector barriers faced by M/WBEs. Market experience is an important determinant of and correlated with success in bidding and securing public contracts, however when compared to non-M/WBEs, M/WBEs in the Harford County Market Area are neither more or less likely to be new firms. This suggests that relative inexperience in the Market cannot explain any disparities in securing contracts with the County.

FINDING 27: COMMERCIAL BANK LOAN DENIALS

Relative to non-MWDBEs, the number of commercial bank loan denials is higher for firms certified as Minority, and those owned by African Americans. This suggests that in the Harford County Market Area, these type of M/WDBEs face barriers in the private credit market and are relatively more likely to have their capacity to compete in the market for public procurement constrained as a result of private sector credit market discrimination.

FINDING 28: LESS PRIME AND SUBCONTRACTOR AWARDS FOR M/WBE FIRMS

Relative to non-M/WBEs, the prime bid submission rate of firms owned by Asian Americans and Bi-multiracial Americans is lower. Relative to non-M/WBEs, firms certified as Minority, and those owned by African Americans, Asian Americans, and Bi-multiracial Americans, Other Races, and Women are awarded fewer prime contracts.

FINDING 29: INFORMAL NETWORKS

In comparison to Non-MWDBEs, firms that are certified as Minority are more likely to perceive that an informal network enables contracting success within Harford County. African Americans, Other Race, and Women were more likely to have this perception.

F. Recommendations***RECOMMENDATION 1: ASPIRATIONAL AND CONTRACT BY CONTRACT GOALS***

All M/WBE groups were statistically significantly underutilized except Asian American and Non-minority Woman-owned firms in Goods. Although GSPC recommends that Harford County continue to enhance its race and gender-neutral programs, the Study provides a basis for the County to institute race and gender-based remedial efforts. Harford County should set annual aspirational goals based upon the Availability found in the Study for each Industry Category (Construction, A&E, Professional Services, Other Services, and Goods) with separate goals for MBEs and WBEs. The aspirational goals should start with Construction projects over \$500,000. GSPC will assist in first year application and develop a formula for future use. These aspirational goals are an internal measure, or benchmark, for achievement of M/WBE participation as prime and subcontractors using all of the race and gender neutral and race and gender conscious tools.

Aspirational goals should also be applied to those solicitations where contract-by-contract goals are not used. This is achieved by including the aspirational goal in solicitation documents and asking prime bidders to provide an M/WBE plan to assist the County to meet its goals. Once the prime bidder commits to subcontract work, those commitments are made part of the contract which is monitored.

Harford County should set contract-by-contract goals on large Construction contracts separately for Minority-owned firms and Non-minority Woman-owned firms based upon a weighted availability by commodity codes based upon the various scopes of work under that contract. Contract-by-contract goals may also be set on large projects in the other Industry Categories, as appropriate. GSPC does not recommend contract-by-contract goal setting for Goods as a matter of course because there are typically few subcontracting opportunities there. However, when such opportunities do arise, the County should have the option to apply contract goals.

Goals are typically set by a team, including purchasing, contract compliance, and the user department to assist in breaking down the scope of work and identifying the availability of firms. Variations sometimes include business or community members, but ultimately, best practices calculate availability using a consistent formula.

Once contract-by-contract goals are set for a contract, prime contractors must meet the goal or demonstrate good faith efforts in attempting to meet the goals. Good faith efforts are best applied with a standard checklist by which the prime contractor submits evidence of its efforts. If a prime bidder fails to meet the goal or demonstrate acceptable good faith efforts, their bid may be deemed non-responsive. If a firm successfully demonstrates Good Faith Efforts, they cannot be treated any differently than a firm that met the goal in the bid evaluation.

RECOMMENDATION 2: REGISTRATION AND CERTIFICATION

Harford County does not currently certify M/WBEs nor SBEs but publishes formal bids on the eMaryland Marketplace Advantage site. The County should encourage firms to register and certify on eMaryland Marketplace Advantage while highlighting the benefits of being a certified firm.

RECOMMENDATION 3: SMALL BUSINESS SHELTERED MARKET PROGRAM

Sheltered Market Programs allow for contracts that fall under certain criteria to be bid upon only by firms with specifications. For Harford County, contracts under a certain threshold should only be bid on by small businesses. The definition of small may be a percentage of the SBA standards.

RECOMMENDATION 4: LIMIT THE USE OF PREQUALIFICATION

Harford County should allow firms to qualify on a contract-by-contract basis, rather than requiring firms to be prequalified. The County should also review the use of on-call contracts to ensure they are not exclusionary.

RECOMMENDATION 5: CONTRACT SIZING

Within Harford County, 87% of all dollars were \$500,000 or more. In the Construction industry 29% of all contracts were more than \$500,00 while the A&E industry had more than 22% of all contracts being more than \$500,000. More than 84% of all A&E dollars were for contracts of \$500,000 or more. GSPC recommends that Harford County review contract sizes and consider unbundling contracts to provide more opportunities for M/WBE firms. Unbundling contracts would divide \$500,000 or more contracts into smaller contracts while keeping the overall scope the same.

RECOMMENDATION 6: INCREASE OUTREACH, FORECASTING, COMMUNICATION, AND PROVIDE SUPPORTIVE SERVICES

Outreach improvement is important to prioritize. Based on anecdotal evidence, there is a gap in the knowledge about the purchasing policies and practices from the public. There appears to be a lack of knowledge about how to register to be notified about bids or to work with the County. There is also lack of knowledge about how the actual bidding process works. Those are all things that could be improved with proper and clear communications with the public.

According to the evidence in the Private Sector chapter, Asian American, and Bi-multiracial-owned firms tend to bid less than other businesses. It is important to add these firms to Harford County’s outreach to make sure that they are receiving bid opportunities. When looking at new firms registering to work with the County, it is important that they are also included in the outreach and that they understand the policies and practices of Harford County procurement. GSPC recommends creating a welcome package for these new firms, where the outreach is clearly outlined as well as the bidding process and procurement practices.

There is a perception that informal networks enable successful contracting. One aspect of an informal network is that certain firms get information that is not available to all firms. This can be dismantled if bid opportunities are forecasted far in advance to give all firms ample time to prepare. GSPC recommends that the County publish upcoming bid opportunities, even if not complete or not yet issued, with the information it has as soon as possible. One year in advance is optimal.

RECOMMENDATION 7: ROBUST CONTRACT COMPLIANCE

To effectively administer an M/WBE program or aspirational goals, Harford County must institute all aspects of contract compliance including robust monitoring to make sure that prime contractors utilize firms as committed to in their bid package. The five (5) steps of Contract Compliance are:

- **Assessment:** An initial assessment of individual firm Availability and capacity for specific scopes of work.
- **Outreach:** An on-going campaign to let the M/WBE business community know that Harford County wants to do business with them and is willing to work with firms to create opportunities and assist, particularly local firms in building capacity.
- **Certification/Verification:** The County should encourage and assist firms in getting certified within eMaryland Marketplace Advance and should continue to accept third-party certifications but also have audit rights including the right to reject acceptance of a certification that it deems not sufficiently supported.
- **Procurement:** All applicable solicitation packages and awarded contracts should include the M/WBE commitments as contract terms as well as Harford County participation requirements, such as all firms performing commercially useful functions.
- **Monitoring:** It is essential that there is close monitoring of vendor performance and the efficient closeout of projects to verify that M/WBE firms are actually performing the work that they were contracted to perform and that they are compensated in a timely manner and in the amounts committed. Monitoring vendor performance should also assure equal and fair treatment on

contracts.

RECOMMENDATION 8: STAFFING AND RESOURCES

The following recommendations represent the need for an increase in both resources and staffing. The County should not undertake these recommendations without first allocating sufficient resources. This may include additional staffing. GSPC is aware that additional funding may be delayed due to the budgeting process. However, until resources can be applied, this time can be utilized with:

1. Accepting the Study and its Recommendations;
2. Conducting a Gap Analysis (What needs new legislation and what can be implemented under current authority)
3. Plan for Implementation (Steps, Phases, and Tasks)
4. Draft New Program Plan
5. Determine Budget and Staffing Needs for New Program Elements
6. Develop a Training Protocol and Train Staff

RECOMMENDATION 9: DATA REFORM

GSPC recommends that Harford County undertake to reform its data as recommended below:

- **Payments:** Harford switched payment systems during the Study Period. The payment file from the current system is more efficient in organizing and assigning work categories.
- **Vendor System/File:** Unify the vendor IDs between the old and new system. Though this is the mechanism for identifying vendors from the previous system, having all firms following the same number sequence would make data organization more efficient. A procurement category such as service or goods should be added as well. Clear and defined descriptions for vendor’s contribution should be implemented. It is vague if a firm performed work or provided goods for a contract.
- **Awards:** Several vendors are listed as potentials for a single award. The file does not define the awardee for the contract. This creates multiple steps of manipulation to transform the data into a succinct file.

III. LEGAL ANALYSIS

A. Introduction

There is important historical background guiding the development of disparity studies, which effectively began in the United States Supreme Court thirty years ago and have been carried forward to the present time by federal and state courts faced with legal challenges to Minority and Women Owned Business Enterprise (M/WBE) and/or Disadvantaged Business Enterprise (DBE) programs and policies. As an initial matter, Harford County (the “County”) does not employ percentage-based utilization goals, project/contract set-asides, bid preferences, or similar advantages for M/WBEs. The County does offer some preferences to local firms, which is a race and gender-neutral inclusion policy.

The parameters of the current study by Griffin & Strong, P.C. (GSPC) of the County’s procurement, and the various methodologies employed therein, are informed by the applicable case law and decades of experience in all aspects regarding inclusion programs and disparity studies.

GSPC respectfully provides in this Legal Analysis chapter a discussion of the key judicial decisions inviting increased use of disparity studies, and a deeper dive into the legal considerations and related evidentiary requirements for sustaining inclusion or preference 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 they demonstrate the continuing significance of the featured United States Supreme Court precedent and highlight the legal foundation under which any challenge to an M/WBE focused policy or program by the County would be analyzed.

Lastly, upon completion of the Disparity Study GSPC will provide the County with proposed findings and recommendations regarding its procurement program(s), with reference to legal considerations that may support or otherwise be implicated by a particular recommendation, including one that includes race-conscious or gender-conscious policies or remedies. This underscores the importance of the following legal analysis for the County’s consideration.

B. Historical Development of the Relevant Law Regarding M/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. 2d 854 (1989), and subsequent judicial decisions have drawn a direct line between Croson and the utilization of disparity studies. See, for example, Adarand Constructors, Inc. v. Slater (Adarand VII), 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 for 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*

Laws that, on their face, favor one protected 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% African American) and awards of prime contracts to minority-owned firms (0.67% 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."⁴

⁴ Croson, 488 U.S. at 480.

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 ethnicity-based program, the Court held, there must be a determination that a strong basis in evidence exists to support the conclusion that the remedial use of race is necessary.

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

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

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.⁵

⁵ Croson, 488 U.S. at 500.

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.⁶ These recommendations have in many respects provided a roadmap 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 subsequent decisions like 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. Tippett, 615 F.3d 233 (4th Cir. 2010).

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 Native American 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

⁶ Six years after its decision in Croson, the Supreme Court was again confronted with an equal protection challenge to a minority business program, in Adarand Constructors, Inc. v. Peña, 515 U.S. 200 (1995) (Adarand III). 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 (10th Cir. 2000) (Adarand VII).

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.⁷

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.⁸

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.⁹ These matters are addressed at length below, which detailed analysis is intended to assist Harford County better evaluate what it would mean to introduce race and gender-neutral and/or race and gender-conscious purchasing policies or remedies, and to be properly positioned to defend them against a 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 County. (See Appendix A for the Expanded Legal Analysis).

C. 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 Kossmann 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.¹⁰ In many respects, this opinion provides a roadmap for success in implementing and defending M/WBE policies or an M/WBE remedial program under the current state of the law, with appropriate attribution and reference to Croson.

⁷ H. B. Rowe, 615 F.3d 250.

⁸ See generally, H.B. Rowe, 615 F.3d at 238-39, 247-48, 251-53.

⁹ Id.

¹⁰ Id. at pp. 34-49, and 53-62.

IV. PURCHASING POLICIES, PRACTICES, AND PROCEDURES REVIEW

A. Introduction

This chapter is designed to review the written policies and practices of Harford County (hereafter “County”) with respect to purchasing and contracting, including related programs or efforts to enhance inclusion of Small Business Enterprise (SBE) and Minority and Women Owned Business Enterprises (M/WBEs).

Underlying this policy review is an understanding that written policies and practices may not always be consistently administered as there is often room for interpretation or discretionary implementation. Accordingly, policy interviews are intended to identify any deviations, differing interpretations, or variant implementation of policies in order to determine whether there may be any effect on participation of small businesses, including those owned by minorities and Women.

The Executive Summary of Findings and Recommendations provides findings about the County’s policies, practices, and procedures, and will offer formal recommendations for improvement of the overall procurement program and greater achievement of its goals based upon those findings.

B. Document Review and Personnel Interviews

In preparation for the policy interviews GSPC reviewed, among other materials:

- Code of Ordinances for the County, including Chapter 41 - Procurement
- Maryland State statutes relating to contracting and procurement
- County website, including the Procurement and Economic Development webpages
- County budget documents
- Other publicly available resources relating to County procurement

GSPC conducted policy interviews in January of 2022 with decision makers and officials regularly engaged in purchasing and contracting for the County. Included in these interviews were personnel in Procurement, Public Works, County Attorney, Small Business Resources, Harford Transit, and Economic Development.

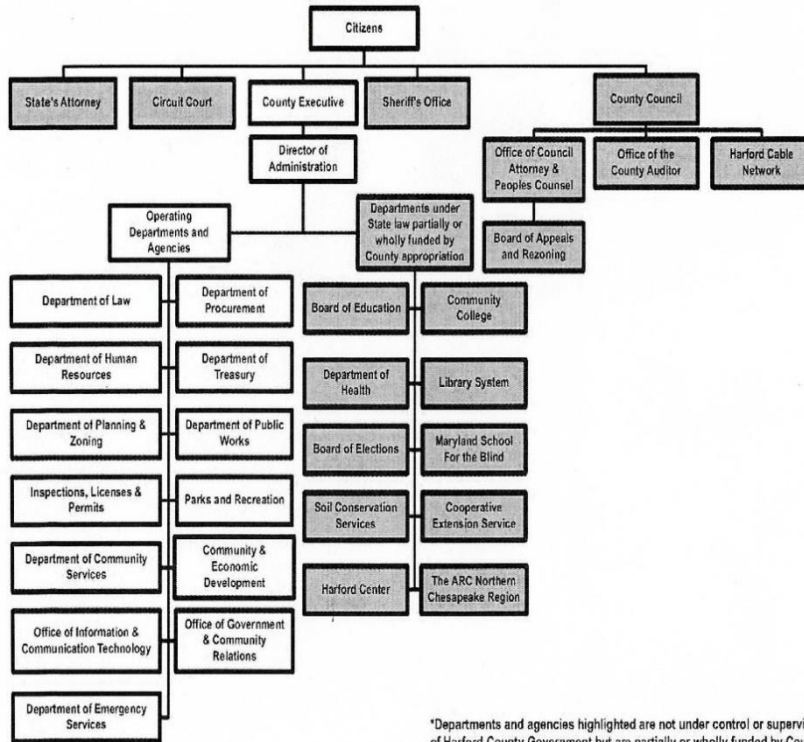
C. Overview of County Purchasing

The Organizational Chart below shows the overall County government structure, including the County Executive Office and the Department of Administration, which includes the Department of Procurement under the Director of Administration. County Procurement staff had ten budgeted positions for FY 2020.¹¹

¹¹ Harford County Fiscal Year 2022, Approved Annual Operating Budget, page 248.

AN OVERVIEW OF HARFORD COUNTY, MARYLAND

Harford County Government Organization Chart



1. Thresholds

The basic parameters of County purchasing in terms of thresholds for competition are summarized below:

- a. No price quotes are required for purchases up to \$4,999. County agencies are encouraged to use the County P-Card for these purchases, however if vendors receive more than \$24,999 over the span of a year, the County may pursue a contractual relationship with the vendor instead of continually purchasing under P-cards.

b. For purchases from \$5,000 to \$24,999.99, three written/faxed/electronic quotes must be obtained by the County department/agency. There are no written requirements for outreach to M/WBEs for these purchases.

c. With some exceptions all purchases of and contracts for supplies and contractual services, in an amount of \$25,000 or more, are based on competitive bids.¹² For purchases over \$25,000 the Department of Procurement posts solicitations for goods and services on the County [Online Bid Board](#), [eMaryland Marketplace Advantage \(eMMA\)](#), and on the Procurement Department bulletin board.¹³

2. Board of Estimates

The County Procurement Code establishes a Board of Estimates composed of the County Executive, the President of the Council, two citizens of Harford County (one appointed by the County Executive and one appointed by the Council), the Director of the Department of Procurement, the Director of the Department of Public Works, and the Treasurer of Harford County.¹⁴ The Board is responsible for the awarding of contracts and supervising of purchasing by the County. The Board of Estimates must approve recommendations for the award of contracts valued at \$50,000 and above, and professional services contracts (under § 41-28) \$25,000 and above.¹⁵

3. P-cards

Staff reports that County P-cards can be used for purchases up to \$5,000. The County does not track spending with SMWBEs on the Purchasing Cards. Bank of America is the vendor for the County p card.

4. Local Bidders

The County Code allows for award to a local responsible bidder when “all bids received are for the same total amount or unit price, quality and service being equal.”¹⁶ The County Code also allows for a preference for a local bidder “who is the lowest responsible local bidder if:

- (1) A bidder whose principal place of business is in another county or state is the lowest responsible bidder;
- (2) The other county or state gives a preference to its local bidders; and
- (3) A preference does not conflict with a federal law or grant affecting the purchase of the supplies or contractual services.”¹⁷

¹² Harford County Code, § 41-14.

¹³ <https://www.harfordcountymd.gov/596/Procurement-Bid-Process>.

¹⁴ Harford County Charter, Article IV, Administrative Organization § 415(a) Board of Estimates.

¹⁵ Harford County Code, § 41-25.

¹⁶ Harford County Code, § 41-26.F.(4)(a).

¹⁷ Harford County Code, § 41-20.2.

5. Single Source

The County Code provides for the appointment of a Negotiation Committee to negotiate with a single source when there are supplies, equipment, or services, including consultant or other professional services, which are proprietary with one producer or available from only one source of supply.¹⁸ Staff reported no abuse of County single source provisions.

6. Cooperative purchasing

The County Code allows for cooperative purchases.¹⁹ The County is a participant in Baltimore Regional Cooperative Purchasing Committee, a regional cooperative purchasing body.²⁰ In addition, to this cooperative procurement, the County also buys off of Maryland state contracts, primarily vehicles and information technology. Some Maryland state contracts have MBE subcontractor goals.²¹ The County also piggy backs off of other government contracts that were competitively bid.

D. Professional Services

The County Code provides that the “[p]rocurement of consultant and other professional services, except for the employment of special legal counsel ... and physicians' services, shall be through negotiation on the basis of qualification and competence of the prospective consultant, the technical proposal as to the proposed work and the price to the county.”²²

In practice the County procures construction-related professional services through two primary processes. First, for smaller projects, the County uses an on-call process. In this procurement methodology the County seeks Statements of Qualification (SOQs) and pricing information for vendors in certain areas, such as wastewater, bridges, etc. The County then ranks the firms and selects firms for various task orders. After the on-call list is established for a particular area, a firm cannot join the list until the next time the list is opened up. Typically, firms stay on-call lists for three to five years.

The second procurement method, used for larger projects, is to issue an RFP seeking SOQs and pricing information for a particular project. There is no firm dollar threshold for the use of on-call versus the standard RFP process. There is some use of the on-call process for nonprofessional services, such as snow removal.

¹⁸ Harford County Code, § 41-30.

¹⁹ Harford County Code, § 41-40.

²⁰ Membership in Baltimore Regional Cooperative Purchasing Committee includes Anne Arundel County, Anne Arundel County Public Schools, Anne Arundel Community College, City of Annapolis, Baltimore County, Baltimore County Public Schools, Community College of Baltimore County, City of Baltimore, Baltimore City Public Schools, Baltimore City Community College, Carroll County, Carroll County Public Schools, Carroll County Community College, Harford County, Harford County Public Schools, Harford County Community College, Howard County, Howard County Public Schools, Howard County Community College, Queen Anne's County and Maryland Department of General Services. <https://www.baltometro.org/purchasing/committees/baltimore-regional-cooperative-purchasing-committee>.

²¹ See, for example, <https://dbm.maryland.gov/contracts/Pages/statewide-contracts/LanguageContractHome.aspx>.

²² Harford County Code, § 41-28.

E. Construction Services

The County has occasionally used design build for a few smaller construction projects, in addition to traditional low bid construction procurement. The County has not used construction manager at risk (CMAR). The County has also used on-call contracts in construction for repair work and other small construction projects.

F. Bonding, Insurance and Prompt Payment

1. Bonding and Insurance

The County Code provides that the “Director ... shall have the authority to require performance and/or payment bonds before a contract is entered into, in such amount as he shall find reasonably necessary to protect the best interests of the county. The Director of Public Works may require maintenance bonds for capital improvement projects in an amount and for a duration of time he may deem appropriate.”²³ Staff interviews indicated that threshold for payment and performance bonds is \$100,000. Staff did not report complaints about bonding requirements, or a practice of waiving bond requirements. Vendor experience with County bonding requirements is discussed in the Anecdotal chapter below.

The County standards terms and conditions provides that “[V]endor agrees to carry commercial general liability, auto liability, and worker’s compensation insurance.”²⁴ The standard terms and conditions does not state specific insurance requirements that are instead set by County risk management staff. County procurement staff did not report any complaints about insurance requirements. Vendor experience with County insurance requirements is discussed in the Anecdotal chapter below.

2. Prompt Payment

The Maryland prompt payment statutes provide that payment on a public contract must be made within 30 days of the date upon which payment becomes due, and subcontractors must be paid by primes within 10 days of the prime receiving its payment.²⁵ Staff interviews indicated that prompt payment was not an issue. Vendor experience with prompt payment by the County and County prime contractors is discussed in the Anecdotal chapter below.

G. Vendor Registration and Prequalification

The County does not keep a vendor registration list of firms interested in pursuing County projects. The County uses eMaryland marketplace advantage (eMMA) to publicize formal bids by County procurement.²⁶ eMMA is the State of Maryland’s eProcurement system where all Maryland solicitations

²³ Harford County Code, § 41-26.F(6).

²⁴ Harford County Code, Purchase Order Terms and Conditions, [https://www.harfordcountymd.gov/DocumentCenter/View/1315/Terms-and-Conditions-PDF?bidId=.](https://www.harfordcountymd.gov/DocumentCenter/View/1315/Terms-and-Conditions-PDF?bidId=)

²⁵ Code of Maryland, State Finance & Procedure §§ 15-103; 15-226.

²⁶ [https://procurement.maryland.gov/.](https://procurement.maryland.gov/)

for State, local government and Universities are post. Vendors registered on eMMA receive notices to go to the County website.

The County requires pre-qualification of contractors for construction projects valued at \$100,000 or more.²⁷ Only pre-qualified firms can submit a bid and have to be pre-qualified before bid opening. Minimum requirements for pre-qualification include: (a) sufficient capital, equipment and work experience, including satisfactory performance on County projects within the past five years, and (b) bonding capacity over \$100,000 and up to the cost of the project.²⁸ The County pre-qualified list is broken into multiple categories, including paving, grading, curb, utilities, building, painting, landscaping, fencing, bridges, pumping stations, and environmental remediation.²⁹

Many of these pre-qualification categories have multiple subcategories by type of work and project size. Public Works personnel review the qualification applications. The Certificate of Pre-qualification is valid for two years. Staff reports that the system of pre-qualification has been in place for some. The only complaint reported by staff about the pre-qualification system was from one firm that was rejected for submitting an incomplete application but subsequently completed the application and won the bid.

For professional services the County Code provides that the “Director of Procurement, by public advertising, will periodically, but no less than every two years, require that all firms interested in providing professional consultant services for the county submit a statement of their area of interest together with a questionnaire similar to the United States Government’s Standard Form 251 and any other data pertinent to the description of capabilities of their firm.”³⁰ This information is updated annually. Professional services firms can submit applications between advertisements. The County, however, does not maintain a list of professional services firms that have submitted qualifications parallel to the list of pre-qualified construction firms.

H. Certification

The County does not certify M/WBEs or SBEs. However, the State of Maryland certifies M/WBEs, DBEs and SBEs and Harford is near the City of Baltimore that certifies M/WBEs. The County has recently used Maryland Department of Transportation (MDOT) certification to track spending with M/WBEs (discussed further below).

I. Incentives and Goals

The County has no M/WBE or SBE set asides, bid preferences or goals. The County does have a contract nondiscrimination ordinance that provides that:

²⁷ Harford County Code, § 41-26.G(2).

²⁸ Harford County, Prequalification of General Contractors, August 12, 2016.

²⁹ Harford County, Vendors with Active Pre-qualification, December 21, 2021.

³⁰ Harford County Code, § 41-28.

No contract shall be awarded to any contractor unless the contract contains provisions obligating the contractor not to discriminate in any manner against any contractor, employee, or applicant for employment because of race, creed, color, or national origin and further obligating the contractor to include similar provisions in all subcontracts, except subcontracts for standard commercial supplies, equipment, or raw materials.³¹

The County does have incentives for purchases from sheltered workshops for the handicapped. The County Code provides that the purchase of janitorial services are to be awarded to a sheltered workshop, if the workshop's bid does not exceed the bid of the lowest responsible non-workshop bidder by more than 25%.³² The County Code also provides that purchases of signs for use in County buildings can be made from a sheltered workshop, unless the signs are produced by a County agency.³³ Staff reports that sheltered workshops have been used in facilities and janitorial services for fleet maintenance.

J. Disadvantaged Business Enterprise Program

The County does not maintain a Disadvantaged Business Enterprise (DBE) program. Harford Transit has a DBE plan that is applied to Federal Transit Administration (FTA) subsidized work³⁴ and the County Procurement Agent III is the DBE Liaison Officer. The County uses only firms on the Maryland Department of Transportation (MDOT) prequalification list on federally funded projects.

Harford Transit and road projects are the primary places for application of DBE goals for the County. The State of Maryland's DBE goal for federal fiscal years 2020-22 is 30% for FTA-assisted contracts, of which 21.58% is race conscious and 8.42% is race neutral.³⁵ Harford Transit LINK uses the MDOT Directory of Certified Firms to identify eligible to DBEs.³⁶ Harford Transit does not issue regular reports of DBE spending. Harford Transit services include ten public bus routes and transportation services for the elderly and disabled. Harford Transit had an audited budget of \$264,349 in FY 2020, implying limited potential spending with DBEs.³⁷

K. Reporting M/WBE Utilization

The County did not track or report M/WBE or SBE utilization during the Study Period. However, in the past few years a contract analyst used the MDOT certification list and manually went through County purchasing data to get a sense of County spending with M/WBEs. The County did not produce annual reports from this exercise.

³¹ Harford County Code, § 41-18.

³² Harford County Code, Code § 41-20.1B. A sheltered workshop is a nonprofit entity that is operated in the interest of the handicapped, certified as a sheltered workshop by the US Department of Labor and accredited by the Maryland Department of Education. Harford County Code, Code § 41-20.1.A.

³³ Harford County Code, Code § 41-20.1.C.

³⁴ Harford Transit LINK, DBE Program Policy Statement, May 12, 2021.

³⁵ There were 121 certified MBEs and DBEs in Harford County in January 2022.

<https://www.mta.maryland.gov/mbe-dbe>.

³⁶ <https://marylandmdbe.mdbecert.com/?TN=marylandmdbe>.

³⁷ Harford County Fiscal Year 2022, Approved Annual Operating Budget, page 725.

The County began the adoption of a new Enterprise Resource Planning (ERP) system, Workday, about two-and-half years ago. Workday has a place for vendors to self-report their M/WBE certification and this is then checked against the MDOT DBE certification list. However, the County has not produced M/WBE utilization reports based on Workday at this time.

L. Business Development Efforts

The County does not provide direct management and technical assistance to firms. However, one of the five goals of the County Office of Community & Economic Development is Entrepreneurial Innovation: maximize co-located services in support of business startups and entrepreneurs.³⁸ In pursuit of this goal the County Office of Community & Economic Development has partnered with a number of business development organizations in the County, including the Small Business Development Center (SBDC), Harford County Chamber of Commerce Venture Access, the Procurement Technical Assistance Center (PTAC), the Army Alliance, the Regional Additive, Manufacturing Authority, the Northeastern MD Technology Council, Harford's Business Edge, the North Eastern Maryland University Research Park, and DefTech, a defense technology commercialization group.³⁹ These partnerships include annual payments in 2021 of \$30,000 to the SBDC, \$50,000 to Venture Access to support entrepreneurial programming, and \$125,000 to PTAC. The County also provides in-kind office space to SBDC, PTAC, and DefTech and incubator space by lease for start-up firms.

PTAC is Sponsored by the Maryland Department of Business and Economic Development, the Defense Logistics Agency, and the University of Maryland. PTAC assists firms with government contracting. The SBDC provides counseling in business management, business plan critiques, business resource navigation, funding resources, growth strategies for profitability, loan packaging, and market analysis and research at no cost. The SBDC training includes government contracting, small business trainings and seminars and start-up assistance. Venture Access is a private entrepreneurial support organization.

The County does not provide small business loans. At one time the County used funds from its Economic Development Opportunity Fund for business loans. Now those funds are a part of a 10% match for State incentives to companies making a significant capital investment in the County that is creating a large number of jobs.

The four divisions of the Office of Community & Economic Development are: Harford Transit, Housing, Office of Economic Development, and Tourism. The functions of the Office of Economic Development and Housing & Community Development, formerly the Housing Agency, were consolidated under the Office of Community & Economic Development.⁴⁰ The Office of Economic Development had a 2021 Budget of \$1,963,276.⁴¹

³⁸ Harford County Fiscal Year 2022, Approved Annual Operating Budget 2022, page 724.

³⁹ Harford County Fiscal Year 2022, Approved Annual Operating Budget 2022, page 45.

⁴⁰ Harford County Executive Order 18-01.

⁴¹ Harford County Fiscal Year 2022, Approved Annual Operating Budget 2022, page 725.

M. Conclusions

No procurement barriers were reported by County staff. Barriers identified by vendors are reported in the Anecdotal chapter below.

The County does not certify M/WBEs and does not have a vendor registration system. The County is somewhat distinctive as a non-transportation agency with pre-qualification requirements for construction projects above \$100,000.

The County has no M/WBE, SBE or DBE program. The County does apply DBE goals to federally funded projects for Harford Transit and some road projects. The County has begun tracking M/WBE spending through its new ERP system but has not produced any M/WBE utilization reports at this time.

The County has partnered with business development organizations in Harford and does provide some organizations with financial and in-kind support.

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 the Harford County geographical and product market areas to the Utilization of each race/ethnicity/gender group, measured by the payments to these groups by the County.

The outcome of the comparison shows whether there is a disparity between Availability and Utilization and whether that disparity is an overutilization, an underutilization, or in parity (the amount to be expected). Further, the disparity is tested to see if it is statistically significant. Legal precedents have clearly established that the presence of such significant statistical disparities creates an inference of discrimination adversely affecting the participation of the underutilized firms. Finally, the regression analysis contained in the Private Sector Chapter 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 M/WBEs 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 Harford County 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 Harford County's data. The objective of the meetings was for GSPC to get a better understanding of how Harford County's data are 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 electronic data was uploaded to GSPC by Harford County in Microsoft SharePoint where they were catalogued and stored in GSPC's own cloud repository. The data collected was used to develop data files containing purchasing history for each major Industry Category, that is, Construction, A&E (A&E), Professional Services, Other Services, and Goods.

Research Question Is there a disparity that is statistically significant between the percentage of available, qualified, and willing M/WBE firms, and the percentage of dollars spent with M/WBE firms in those same markets during the Study Period?

Additionally, GSPC worked on verifying the 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 governmental agency certification listings. GSPC used vendor ZIP codes to identify the county where businesses are located to determine whether a vendor will be included in the Relevant Geographic Market analysis. Some files submitted by Harford County did not contain the necessary information, including vendors' physical addresses. To supplement the missing information,

more data was obtained from Dun & Bradstreet databases, or by simply searching the businesses' name on the internet. As GSPC developed data files, those files were shared for approval with the County and Harford County was given access to all files and tables in GSPC's cloud repository. Subcontractor data was obtained through a survey of prime vendors.

C. Data Assignment, Cleanup and Verification

After the completion of data collection, the submitted data were electronically and manually "cleaned" to remove duplicates and exclude all unrelated payments such as payment to personnel, nonprofit organizations, and governmental agencies. The cleanup phase 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 the firm performs;
- Utilizing zip codes to determine certain areas to assign each firm's location;
- Matching files electronically to pick up addresses, ethnicity/race/gender, and/or Work Category; and
- Filling in any additional necessary data on firms.

File cleanup was first done electronically by linking information provided by Harford County to certain indicators, like purchase order number, vendor name, vendor 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 Ethnicity and Gender

In order to identify all Minority owned firms, GSPC utilized only those which were certified through the following certification process:

- Harford County Transit Disadvantaged Business Enterprise (DBE) Program Policy Statement (signed May of 2021)
- Maryland Department of Transportation Certified Directory
- Prince George's County Certified List
- Washington, DC Certified Business Enterprise (CBE) List
- Baltimore County DBE List

In assigning race/gender/ethnicity, priority was given to firms' race/ethnicity, so that all Minority owned firms were categorized according to their race/ethnicity and not by gender. For example, a Woman-owned Asian American firm was categorized as Asian American rather than a Woman-owned business. Non-minority Women-owned firms were categorized individually by their race and gender. Nonminority male owned firms, and publicly owned corporations are categorized as Non-M/WBE firms. Vendors were identified as MBE or WBE if they were certified through an official certification process by certified list.

2. Assignment of Business Categories

In order to place firms into the proper Industry Categories, GSPC initially used the internal Harford County business classification but verified the results after assigning vendors into Construction, Architecture and Engineering (“A&E”), Professional Services, Other Services and Goods categories. Several data summaries were provided by GSPC for joint reviews with Harford County. Due to those steps some vendors were reclassified based on additional information provided by the county. In the final analysis, GSPC and the Harford County Project Managers agreed 100% on the classification and accuracy of vendors in various categories. As a point of clarification, it is imperative to note that in determining vendor classification, GSPC utilized various strategies to reach the final classification. For instance, GSPC used both internal coding of vendors in the eMaryland Market Place Advantage (eMMA) System which uses UNSPSC codes provided by Harford County and converting those into NAICS to classify the vendors.

This strategy was adopted since a large proportion of vendors did not have UNSPSC codes. For those with missing UNSPSC codes, GSPC obtained NAICS codes from the Dun and Bradstreet (commonly known as Hoovers data) database (D&B does not provide UNSPSC code but offer NAICS code for each vendor). It is important to note that Hoover data offers the largest publicly available database of business establishments in the U.S. In addition to providing information about the vendors, Hoovers provided some essential information about the business name, Work Category, business address, phone number, NAICS code, business type, and other descriptive relevant information. Hoovers data is continuously updated and verified, thus providing accurate and updated information about vendors. Following the above steps, GSPC used both UNSPSC and NAICS codes to categorize vendors into Construction, A&E, Professional Services, Other Services and Goods.

3. Master Vendor File

Harford County provided a series of data files reflecting all aspects of procurement activities during the Study Period. Based on the submitted files, GSPC created two master files. One file showing Utilization data while the other produced information about available list of vendors. The Utilization master file contained all information for disparity analysis while the Availability master file included the listing of all firms who were ready, willing, and able to engage in providing Goods and services for Harford County. In doing that, GSPC combined information from several files into a single Availability file. As mentioned before, files were linked to maximize the available information since some were submitted without required information. In order to produce a valid and comprehensive listing of all available vendors, GSPC included internal lists from Harford County as well as outside governmental lists. Finally, the Utilization and Availability files were compared to confirm that they were in reference to ethnicity, firm ownership, location, type of work, and other related information. Following is the list of resources used in generating the Master Vendor File for:

- Harford County Prime Payments
- Harford County Awards
- Harford County Vendor Lists
- Harford County Bid Tabulations
- Harford County Prequalified List
- Maryland Department of Transportation Certified DBE Directory

- Washington, DC CBE List
- Prince George's County Certified Directory

D. Relevant Geographic Market area Analysis

The commonly held idea that the Relevant Geographic Market area should encompass at least 75% to 85% of the "qualified" vendors that serve a particular sector has its origins in antitrust lawsuits.⁴² 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.⁴³ 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 Geographic Market area*] 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 Geographic Market area has been determined for each of the Industry Categories:

- Construction
- A&E
- Professional Services
- Other Services
- Goods

For each Industry Category GSPC measured the Relevant Geographic Market area as the area where at least 75% of the Harford County dollars were paid during the Study Period. In doing that, GSPC converted vendors' Postal Zip Codes into Counties and State and then worked on drawing the Relevant Geographic Market area. The Geographic Relevant Market is the Washington-Baltimore Consolidated Statistical Area ("CSA").⁴⁴

The results of Relevant Geographic Market area presented in Table 1 show that 94.14% of all Construction related procurements, during the Study Period, were paid to vendors within the Harford relevant market. The Harford County market area covered 89.86% of A&E, 89.83% of Professional Services, 83.18% of Other Services, and 60.71% of Goods. Given that 82.35% of all Harford County spending was with firms located in this relevant market, GSPC determined that one consistent Relevant Geographic Market across

⁴² 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)

⁴³ City of Richmond v. J.A. Croson Company, 488 U.S. 469, 709 S. Ct. 706 (1989)

⁴⁴ Counties included: Harford County, MD; Cecil County, MD; Baltimore City, MD; Baltimore County, MD; Anne Arundel County, MD; Howard County, MD; York County, PA; Queen Anne's County, MD; Carroll County, MD; Montgomery County, MD; Prince George's County, MD; Loudoun County, VA; Frederick County, MD; Spotsylvania County, VA; Fairfax County, VA; District of Columbia.

all Industry Categories was appropriate. A more detailed breakdown of the Relevant Geographic Market by County is included in Appendix D.

**Table 6: Relevant Geographic Market Area Procurement
Procurement by Market Area Counties and State, Prime Construction
(Using Payment Dollars, FY 2017-2021)
Harford County Disparity Study**

| Work Category | Area | Amount | Percent | Cumulative % |
|------------------------------|------------------------------|----------------|---------|--------------|
| Construction | Relevant Market Area (CSA) | \$ 145,880,499 | 94.14% | 94.14% |
| | Rest of Counties in Maryland | \$ 1,547,954 | 1.00% | 95.14% |
| | Rest of USA | \$ 7,527,456 | 4.86% | 100% |
| | Outside of USA | \$ - | | |
| | Total | \$ 154,955,908 | 100.00% | |
| A&E | Relevant Market Area (CSA) | \$ 31,581,638 | 89.86% | 89.86% |
| | Rest of Counties in Maryland | \$ 250,810 | 0.71% | 90.58% |
| | Rest of USA | \$ 3,311,838 | 9.42% | 100.00% |
| | Outside of USA | \$ - | 0.00% | 100.00% |
| | Total | \$ 35,144,286 | 100.00% | |
| Professional Services | Relevant Market Area (CSA) | \$ 29,551,432 | 89.83% | 89.83% |
| | Rest of Counties in Maryland | \$ 1,590 | 0.00% | 89.84% |
| | Rest of USA | \$ 3,342,287 | 10.16% | 100.00% |
| | Outside of USA | \$ - | | |
| | Total | \$ 32,895,309 | 100.00% | |
| Other Services | Relevant Market Area (CSA) | \$ 171,102,392 | 83.18% | 83.18% |
| | Rest of Counties in Maryland | \$ 1,719,396 | 0.84% | 84.02% |
| | Rest of USA | \$ 32,872,114 | 15.98% | 100.00% |
| | Outside of USA | \$ - | 0.00% | 100.00% |
| | Total | \$ 205,693,902 | 100.00% | |
| Goods | Relevant Market Area (CSA) | \$ 70,300,764 | 60.71% | 60.71% |
| | Rest of Counties in Maryland | \$ 379,782 | 0.33% | 61.04% |
| | Rest of USA | \$ 45,112,092 | 38.96% | 100.00% |
| | Outside of USA | \$ - | 0.00% | 100.00% |
| | Total | \$ 115,792,638 | 100.00% | |

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E. Availability Analysis

The methodology utilized to determine the Availability of businesses for public contracting is crucial to understanding whether a disparity exists within the Relevant Geographic Market area. Availability is a benchmark to examine whether there are any disparities between the Utilization of M/WBEs and their Availability in the marketplace.

AVAILABILITY ESTIMATE is the determination of the percentage of M/WBEs that are “ready, willing, and able” to provide goods or services to Harford County

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 the County makes certain purchases.
- The firm's owner has taken steps (such as bidding, certification, prequalification, etc.) to demonstrate interest, or willingness, in doing business with government.
- The firm is located within a relevant geographical market area such that it can do business with County.

M/WBE Availability is a percentage and is computed by dividing the number of firms in each M/WBE group by the total number of businesses in the pool of firms for that procurement category. Once these Availability Estimates were calculated, GSPC compared them to the percentage of firms utilized in the respective Industry Categories in order to generate the disparity indices which will be discussed later in this analysis.

1. Measurement Basis for Availability

There are several 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 geographic market and in the relevant Industry Categories. In determining those firms to be included in the Availability pool, GSPC produced the entire Master Vendor File.

2. Capacity

The ability or capacity to perform the work is tested in the Regression Analysis conducted in Chapter V Private Sector Analysis below. The regression analysis shows whether race/ethnicity/gender factors are impediments overall to the success of M/WBEs 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.

3. Availability Estimates

Below are the Availability Estimates for the Study. The data is separated into five (5) Industry Categories. Tables 7 through 11 show the percentage of firms by race/gender/ethnicity as compared with the total number of firms.

The Availability analyzed from the Master Vendor File includes all unique vendors in each Work Category.⁴⁵ The Harford County Relevant Geographic Market Area Availability Estimates for Construction is shown in Table 7. As depicted in the table, Non-M/WBE owned firms were 70.83% of all Construction firms followed by 15.48% of the firms owned by Black American-owned firms. Non-minority Woman owned firms represented 5.48%, Hispanic American-owned firms were 5.36%, and Asian and Native American-owned firms reflected 1.79% and 1.07% of total Construction Availability, respectively. A total of 840 vendors were available in Construction area.

**Table 7: Availability Estimates- Construction
In the Relevant Geographic Market area
Harford County Disparity Study**

| Business Ownership Classification | Number of Firms | Percent of Firms |
|-----------------------------------|-----------------|------------------|
| Black American | 130 | 15.48% |
| Asian American | 15 | 1.79% |
| Hispanic American | 45 | 5.36% |
| Native American | 9 | 1.07% |
| TOTAL MBE | 199 | 23.69% |
| Nonminority Female | 46 | 5.48% |
| TOTAL M/WBE | 245 | 29.17% |
| NON-M/WBE | 595 | 70.83% |
| TOTAL FIRMS | 840 | 100.00% |

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⁴⁵ 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.

Availability of A&E Firms by ownership in the Relevant Geographic Area is presented in Table 8. GSPC recorded 430 vendors in that area. As the Table reflects, 76.28% of the vendors were Non-M/WBEs while 9.53% of businesses were owned by Black Americans. Likewise, as shown in Table 8, Non-minority Women represented 6.28% of total firms in that category while firms owned by Asian Americans, Hispanic Americans, and Native Americans showed 5.12%, 1.86%, and 0.93%, respectively.

**Table 8: Availability Estimates - A & E
In the Relevant Market Area
Harford County Disparity Study**

| Business Ownership Classification | Number of Firms | Percent of Firms |
|-----------------------------------|-----------------|------------------|
| Black American | 41 | 9.53% |
| Asian American | 22 | 5.12% |
| Hispanic American | 8 | 1.86% |
| Native American | 4 | 0.93% |
| TOTAL MBE | 75 | 17.44% |
| Nonminority Female | 27 | 6.28% |
| TOTAL M/WBE | 102 | 23.72% |
| NON-M/WDBE | 328 | 76.28% |
| TOTAL FIRMS | 430 | 100.00% |

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In reference to Professional Services, 73.62% of firm owners were Non-M/WBEs while 20.57% were Black Americans (Table 9). Non-minority Women made up 1.71% of the firms' ownership and Asian American-owned firms represented 2.00%. Firms owned by Hispanic Americans and Native Americans accounted for 1.33% and 0.76%, respectively.

**Table 9: Availability Estimates – Professional Services
In the Relevant Geographic Market area
Harford County Disparity Study**

| Business Ownership Classification | Number of Firms | Percent of Firms |
|-----------------------------------|-----------------|------------------|
| Black American | 216 | 20.57% |
| Asian American | 21 | 2.00% |
| Hispanic American | 14 | 1.33% |
| Native American | 8 | 0.76% |
| TOTAL MBE | 259 | 24.67% |
| Nonminority Female | 18 | 1.71% |
| TOTAL M/WBE | 277 | 26.38% |
| NON-M/WDBE | 773 | 73.62% |
| TOTAL FIRMS | 1,050 | 100.00% |

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Availability of Other Services firms in the Relevant Geographic Market area is presented in Table 10. As depicted in Table 10, 78.36% of the firms were Non-M/WBEs and 12.77% were owned by Black Americans. Non-minority Women-owned firms consisted of 3.78% while Hispanic American owned firms made up 1.61% of the firms. Firms owned by Asian and Native Americans reflected 2.05% and 1.43%, respectively.

Table 10: Availability Estimates – Other Services
In the Relevant Geographic Market area
Harford County Disparity Study

| Business Ownership Classification | Number of Firms | Percent of Firms |
|-----------------------------------|-----------------|------------------|
| Black American | 206 | 12.77% |
| Asian American | 33 | 2.05% |
| Hispanic American | 26 | 1.61% |
| Native American | 23 | 1.43% |
| TOTAL MBE | 288 | 17.85% |
| Nonminority Female | 61 | 3.78% |
| TOTAL M/WBE | 349 | 21.64% |
| NON-M/WDBE | 1,264 | 78.36% |
| TOTAL FIRMS | 1,613 | 100.00% |

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Availability of firms in the Goods category is presented in Table 11. As shown in Table 11, 90.90% of firms were Non-M/WBEs while 6.95% were owned by Black Americans. Non-minority Women-owned firms accounted for 3.39% of the total, and Hispanic American owned firms were 0.45%. Firms owned by Asian Americans and Native Americans were 1.16% and 0.36% of the firms, respectively.

Table 11: Availability Estimates – Goods
In the Relevant Geographic Market area
Harford County Disparity Study

| Business Ownership Classification | Number of Firms | Percent of Firms |
|-----------------------------------|-----------------|------------------|
| Black American | 42 | 6.95% |
| Asian American | 13 | 1.16% |
| Hispanic American | 5 | 0.45% |
| Native American | 4 | 0.36% |
| TOTAL MBE | 64 | 5.71% |
| Nonminority Female | 38 | 3.39% |
| TOTAL M/WBE | 102 | 9.10% |
| NON-M/WDBE | 1,019 | 90.90% |
| TOTAL FIRMS | 1,121 | 100.00% |

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F. Utilization Analysis

1. Prime Utilization

The relevant payment history for the County has been recorded based upon the paid amounts provided by the County. In the Prime Utilization tables below, the dollars and percentage of dollars paid in each of the five (5) Industry Categories have been broken up by race/ethnicity and gender for each year of the Study Period. The total of each race/ethnicity and gender group represented in the M/WBE category will, when added to the Non-M/WBE Category, equal the Total Column.

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

As shown in Table 13, 4.62% of procurement in Construction was spent with M/WBEs. Table 12 shows a limited number of M/WBE vendors were utilized in Construction area as compared to Non-M/WBEs, 16 and 176, respectively. The average pay for M/WBEs in Construction category was \$421,219 as compared to \$790,574 for Non-M/WBE vendors over the Study Period.

**Table 12: Number of Businesses by Business Ownership and Fiscal Year
Prime Data, Construction
(Using Number of Firms, FY 2017-2021)
Harford County Disparity Study**

| Fiscal Year | African American | | Asian American | | Hispanic American | | Native American | | Total MBE | | Non Minority Woman | | Total MWBE | | Non-MWBE | | TOTAL | |
|---|------------------|--------------|----------------|--------------|-------------------|--------------|-----------------|--------------|-----------|--------------|--------------------|--------------|------------|--------------|------------|---------------|------------|----------------|
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| 2017 | 1 | 0.96% | 1 | 0.96% | 2 | 1.92% | 1 | 0.96% | 5 | 4.81% | 5 | 4.81% | 10 | 9.62% | 94 | 90.38% | 104 | 100.00% |
| 2018 | 1 | 0.85% | 1 | 0.85% | 3 | 2.56% | 1 | 0.85% | 6 | 5.13% | 6 | 5.13% | 12 | 10.26% | 105 | 89.74% | 117 | 100.00% |
| 2019 | 1 | 0.72% | 2 | 1.44% | 2 | 1.44% | 2 | 1.44% | 7 | 5.04% | 8 | 5.76% | 15 | 10.79% | 124 | 89.21% | 139 | 100.00% |
| 2020 | 1 | 1.15% | 1 | 1.15% | 2 | 2.30% | 0 | 0.00% | 4 | 4.60% | 4 | 4.60% | 8 | 9.20% | 79 | 90.80% | 87 | 100.00% |
| 2021 | 1 | 1.39% | 0 | 0.00% | 2 | 2.78% | 0 | 0.00% | 3 | 4.17% | 3 | 4.17% | 6 | 8.33% | 66 | 91.67% | 72 | 100.00% |
| Total 2018-2020 | 5 | 0.96% | 5 | 0.96% | 11 | 2.12% | 4 | 0.77% | 25 | 4.82% | 26 | 5.01% | 51 | 9.83% | 468 | 90.17% | 519 | 100.00% |
| Total Number of Unique Business* | 1 | 0.52% | 1 | 0.52% | 4 | 2.08% | 1 | 0.52% | 7 | 3.65% | 9 | 4.69% | 16 | 8.33% | 176 | 91.67% | 192 | 100.00% |

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**Table 13: Utilization of Prime Analysis in Relevant Market Area
Prime Data, Construction
(Using Payment Dollars, FY 2017-2021)
Harford County Study**

| Business Ownership Classification | 2017 (\$) | 2018 (\$) | 2019 (\$) | 2020 (\$) | 2021 (\$) | TOTAL (\$) |
|-----------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|
| Black American | \$ 16,976 | \$ 7,771 | \$ 33,012 | \$ 17,428 | \$ 37,938 | \$ 113,125 |
| Asian American | \$ 42,018 | \$ 14,094 | \$ 84,070 | \$ 248,724 | \$ - | \$ 388,906 |
| Hispanic American | \$ 167,299 | \$ 199,795 | \$ 143,949 | \$ 169,748 | \$ 279,378 | \$ - |
| Native American | \$ 166 | \$ 1,998 | \$ 3,016 | \$ - | \$ - | \$ 5,180 |
| TOTAL MINORITY | \$ 226,459 | \$ 223,657 | \$ 264,047 | \$ 435,901 | \$ 317,316 | \$ 1,467,380 |
| Nonminority Female | \$ 991,443 | \$ 804,580 | \$ 999,710 | \$ 1,781,334 | \$ 695,052 | \$ 5,272,119 |
| TOTAL M/WBE | \$ 1,217,902 | \$ 1,028,238 | \$ 1,263,757 | \$ 2,217,234 | \$ 1,012,368 | \$ 6,739,499 |
| NON-M/WBE | \$ 29,056,425 | \$ 21,814,089 | \$ 24,874,764 | \$ 29,430,068 | \$ 33,965,654 | \$ 139,141,000 |
| TOTAL FIRMS | \$ 30,274,327 | \$ 22,842,327 | \$ 26,138,521 | \$ 31,647,302 | \$ 34,978,022 | \$ 145,880,499 |
| Business Ownership Classification | 2017 (%) | 2018 (%) | 2019 (%) | 2020 (%) | 2021 (%) | TOTAL (%) |
| Black American | 0.06% | 0.03% | 0.13% | 0.06% | 0.11% | 0.08% |
| Asian American | 0.14% | 0.06% | 0.32% | 0.79% | 0.00% | 0.27% |
| Hispanic American | 0.55% | 0.87% | 0.55% | 0.54% | 0.80% | 0.00% |
| Native American | 0.00% | 0.01% | 0.01% | 0.00% | 0.00% | 0.00% |
| TOTAL MINORITY | 0.75% | 0.98% | 1.01% | 1.38% | 0.91% | 1.01% |
| Nonminority Female | 3.27% | 3.52% | 3.82% | 5.63% | 1.99% | 3.61% |
| TOTAL M/WBE | 4.02% | 4.50% | 4.83% | 7.01% | 2.89% | 4.62% |
| NON-M/WBE | 95.98% | 95.50% | 95.17% | 92.99% | 97.11% | 95.38% |
| TOTAL FIRMS | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |

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Table 14 shows the number of businesses utilized in the A&E category by the County during the Study Period. Overall, 60 vendors were utilized in the A&E category during the Study Period in which were six WBEs (10%). There were no MBEs. Altogether, the WBE businesses earned 1.97% of the procurement expenditure in A&E (Table 15). The average pay for WBEs in the A&E category was \$41,545 as compared to \$573,305 for Non-M/WBE vendors over the Study Period.

Table 14: Number of Businesses by Business Ownership and Fiscal Year Prime Data, A & E
(Using Payment Dollars, FY 2017-2021)
Harford County Disparity Study

| Fiscal Year | African American | | Asian American | | Hispanic American | | Native American | | Total MBE | | Non Minority Woman | | Total MWBE | | Non-MWBE | | TOTAL | |
|---|------------------|--------------|----------------|--------------|-------------------|--------------|-----------------|--------------|-----------|--------------|--------------------|---------------|------------|---------------|------------|---------------|------------|----------------|
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| 2017 | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 2 | 4.76% | 2 | 4.76% | 40 | 95.24% | 42 | 100.00% |
| 2018 | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 2 | 4.55% | 2 | 4.55% | 42 | 95.45% | 44 | 100.00% |
| 2019 | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 2 | 3.03% | 2 | 3.03% | 64 | 96.97% | 66 | 100.00% |
| 2020 | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 4 | 10.81% | 4 | 10.81% | 33 | 89.19% | 37 | 100.00% |
| 2021 | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 5 | 13.89% | 5 | 13.89% | 31 | 86.11% | 36 | 100.00% |
| Total 2018-2020 | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 15 | 6.67% | 15 | 6.67% | 210 | 93.33% | 225 | 100.00% |
| Total Number of Unique Business* | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 6 | 10.00% | 6 | 10.00% | 54 | 90.00% | 60 | 100.00% |

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Table 15: Utilization of Prime Analysis in Relevant Market Area
Prime Data, A & E
(Using Payment Dollars, FY 2017-2021)
Harford County Disparity Study

| Business Ownership Classification | 2017 (\$) | 2018 (\$) | 2019 (\$) | 2020 (\$) | 2021 (\$) | TOTAL (\$) |
|-----------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|
| Black American | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Asian American | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Hispanic American | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Native American | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| TOTAL MINORITY | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Nonminority Female | \$ 11,538 | \$ 25,560 | \$ 22,567 | \$ 80,872 | \$ 482,634 | \$ 623,171 |
| TOTAL M/WBE | \$ 11,538 | \$ 25,560 | \$ 22,567 | \$ 80,872 | \$ 482,634 | \$ 623,171 |
| NON-M/WBE | \$ 5,287,665 | \$ 4,704,159 | \$ 3,997,408 | \$ 9,705,370 | \$ 7,263,865 | \$ 30,958,467 |
| TOTAL FIRMS | \$ 5,299,203 | \$ 4,729,719 | \$ 4,019,975 | \$ 9,786,242 | \$ 7,746,499 | \$ 31,581,638 |
| Business Ownership Classification | 2017 (%) | 2018 (%) | 2019 (%) | 2020 (%) | 2021 (%) | TOTAL (%) |
| Black American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Asian American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Hispanic American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Native American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| TOTAL MINORITY | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Nonminority Female | 0.22% | 0.54% | 0.56% | 0.83% | 6.23% | 1.97% |
| TOTAL M/WBE | 0.22% | 0.54% | 0.56% | 0.83% | 6.23% | 1.97% |
| NON-M/WBE | 99.78% | 99.46% | 99.44% | 99.17% | 93.77% | 98.03% |
| TOTAL FIRMS | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |

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As shown in Table 17, 2.20% of procurement in Professional Services was spent with M/WBEs (\$651,065). Table 16 shows seven M/WBE vendors were utilized in Professional Services area as compared to 172 Non-M/WBE vendors. The average pay for M/WBEs in the Professional Services category was \$93,009 as compared to \$168,025 for Non-M/WBE vendors over the Study Period.

**Table 16: Number of Businesses by Business Ownership and Fiscal Year
Prime Data, Professional Services
(Using Payment Dollars, FY 2017-2021)
Harford County Disparity Study**

| Fiscal Year | African American | | Asian American | | Hispanic American | | Native American | | Total MBE | | Non Minority Woman | | Total MWBE | | Non-MWBE | | TOTAL | |
|---|------------------|--------------|----------------|--------------|-------------------|--------------|-----------------|--------------|-----------|--------------|--------------------|--------------|------------|--------------|------------|---------------|------------|----------------|
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| 2017 | 5 | 4.20% | 0 | 0.00% | 0 | 0.00% | 1 | 0.84% | 6 | 5.04% | 0 | 0.00% | 6 | 5.04% | 113 | 94.96% | 119 | 100.00% |
| 2018 | 5 | 4.81% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 5 | 4.81% | 0 | 0.00% | 5 | 4.81% | 99 | 95.19% | 104 | 100.00% |
| 2019 | 6 | 4.14% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 6 | 4.14% | 0 | 0.00% | 6 | 4.14% | 139 | 95.86% | 145 | 100.00% |
| 2020 | 3 | 4.17% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 3 | 4.17% | 0 | 0.00% | 3 | 4.17% | 69 | 95.83% | 72 | 100.00% |
| 2021 | 2 | 3.13% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 2 | 3.13% | 1 | 1.56% | 3 | 4.69% | 61 | 95.31% | 64 | 100.00% |
| Total 2018-2020 | 21 | 4.17% | 0 | 0.00% | 0 | 0.00% | 1 | 0.20% | 22 | 4.37% | 1 | 0.20% | 23 | 4.56% | 481 | 95.44% | 504 | 100.00% |
| Total Number of Unique Business* | 5 | 2.79% | 0 | 0.00% | 0 | 0.00% | 1 | 0.56% | 6 | 3.35% | 1 | 0.56% | 7 | 3.91% | 172 | 96.09% | 179 | 100.00% |

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Table 17: Utilization of Prime Analysis in Relevant Market Area Prime Data, Professional Services
(Using Payment Dollars, FY 2017-2021)
Harford County Disparity Study

| Business Ownership Classification | 2017 (\$) | 2018 (\$) | 2019 (\$) | 2020 (\$) | 2021 (\$) | TOTAL (\$) |
|-----------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Black American | \$ 82,546 | \$ 135,243 | \$ 105,849 | \$ 171,503 | \$ 133,992 | \$ 629,132 |
| Asian American | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Hispanic American | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Native American | \$ 340 | \$ - | \$ - | \$ - | \$ - | \$ 340 |
| TOTAL MINORITY | \$ 82,886 | \$ 135,243 | \$ 105,849 | \$ 171,503 | \$ 133,992 | \$ 629,472 |
| Nonminority Female | \$ - | \$ - | \$ - | \$ - | \$ 21,593 | \$ 21,593 |
| TOTAL M/WBE | \$ 82,886 | \$ 135,243 | \$ 105,849 | \$ 171,503 | \$ 155,585 | \$ 651,065 |
| NON-M/WBE | \$4,932,560 | \$2,856,181 | \$8,882,498 | \$6,430,496 | \$5,798,632 | \$28,900,367 |
| TOTAL FIRMS | \$ 5,015,446 | \$ 2,991,424 | \$ 8,988,347 | \$ 6,601,999 | \$ 5,954,217 | \$29,551,432 |
| Business Ownership Classification | 2017 (%) | 2018 (%) | 2019 (%) | 2020 (%) | 2021 (%) | TOTAL (%) |
| Black American | 1.65% | 4.52% | 1.18% | 2.60% | 2.25% | 2.13% |
| Asian American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Hispanic American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Native American | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| TOTAL MINORITY | 1.65% | 4.52% | 1.18% | 2.60% | 2.25% | 2.13% |
| Nonminority Female | 0.00% | 0.00% | 0.00% | 0.00% | 0.36% | 0.07% |
| TOTAL M/WBE | 1.65% | 4.52% | 1.18% | 2.60% | 2.61% | 2.20% |
| NON-M/WBE | 98.35% | 95.48% | 98.82% | 97.40% | 97.39% | 97.80% |
| TOTAL FIRMS | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |

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The number of firms utilized and the associated amounts for Other Services are presented in Tables 18 and 19. Comparatively speaking, the number of M/WBEs utilized in that category was 2.78% of total number of businesses utilized in the Other Services category. As reflected in Table 19, only \$4,000 of the procurement in Other Services was conducted with MBEs which translates to .00% and 1.02% with Non-minority Women businesses. The average pay for M/WBEs in the Other Services category was \$194,396 as compared to \$180,546 for Non-M/WBE vendors over the Study Period.

Table 18: Number of Firms Utilized by Business Ownership and Fiscal Year Prime Data, Other Services
(Using Number of Firms, FY 2017-2021)
Harford County Disparity Study

| Fiscal Year | African American | | Asian American | | Hispanic American | | Native American | | Total MBE | | Non Minority Woman | | Total MWBE | | Non-MWBE | | TOTAL | |
|---|------------------|--------------|----------------|--------------|-------------------|--------------|-----------------|--------------|-----------|--------------|--------------------|--------------|------------|--------------|------------|---------------|------------|----------------|
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| 2017 | 0 | 0.00% | 0 | 0.00% | 1 | 0.50% | 0 | 0.00% | 1 | 0.50% | 6 | 2.99% | 7 | 3.48% | 194 | 96.52% | 201 | 100.00% |
| 2018 | 0 | 0.00% | 0 | 0.00% | 1 | 0.47% | 0 | 0.00% | 1 | 0.47% | 8 | 3.76% | 9 | 4.23% | 204 | 95.77% | 213 | 100.00% |
| 2019 | 0 | 0.00% | 0 | 0.00% | 1 | 0.37% | 0 | 0.00% | 1 | 0.37% | 9 | 3.30% | 10 | 3.66% | 263 | 96.34% | 273 | 100.00% |
| 2020 | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% | 5 | 3.27% | 5 | 3.27% | 148 | 96.73% | 153 | 100.00% |
| 2021 | 0 | 0.00% | 0 | 0.00% | 1 | 0.80% | 0 | 0.00% | 1 | 0.80% | 5 | 4.00% | 6 | 4.80% | 119 | 95.20% | 125 | 100.00% |
| Total 2018-2020 | 0 | 0.00% | 0 | 0.00% | 4 | 0.41% | 0 | 0.00% | 4 | 0.41% | 33 | 3.42% | 37 | 3.83% | 928 | 96.17% | 965 | 100.00% |
| Total Number of Unique Business* | 0 | 0.00% | 0 | 0.00% | 1 | 0.31% | 0 | 0.00% | 1 | 0.31% | 8 | 2.47% | 9 | 2.78% | 315 | 97.22% | 324 | 100.00% |

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**Table 19: Utilization of Prime Analysis in Relevant Market Area Prime Data, Other Services
(Using Payment Dollars, FY 2017-2021)
Harford County Disparity Study**

| Fiscal Year | African American | | Asian American | | Hispanic American | | Native American | | Total MBE | | Non Minority Woman | | Total MWBE | | Non-MWBE | | TOTAL | |
|---|------------------|--------------|----------------|--------------|-------------------|--------------|-----------------|--------------|-----------|--------------|--------------------|--------------|------------|--------------|------------|---------------|------------|----------------|
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| 2017 | 0 | 0.00% | 2 | 0.99% | 0 | 0.00% | 0 | 0.00% | 2 | 0.99% | 6 | 2.96% | 8 | 3.94% | 195 | 96.06% | 203 | 100.00% |
| 2018 | 0 | 0.00% | 2 | 0.93% | 0 | 0.00% | 0 | 0.00% | 2 | 0.93% | 9 | 4.17% | 11 | 5.09% | 205 | 94.91% | 216 | 100.00% |
| 2019 | 0 | 0.00% | 2 | 0.71% | 0 | 0.00% | 0 | 0.00% | 2 | 0.71% | 11 | 3.89% | 13 | 4.59% | 270 | 95.41% | 283 | 100.00% |
| 2020 | 0 | 0.00% | 1 | 0.72% | 0 | 0.00% | 0 | 0.00% | 1 | 0.72% | 3 | 2.17% | 4 | 2.90% | 134 | 97.10% | 138 | 100.00% |
| 2021 | 0 | 0.00% | 1 | 0.83% | 0 | 0.00% | 0 | 0.00% | 1 | 0.83% | 2 | 1.65% | 3 | 2.48% | 118 | 97.52% | 121 | 100.00% |
| Total 2018-2020 | 0 | 0.00% | 8 | 0.83% | 0 | 0.00% | 0 | 0.00% | 8 | 0.83% | 31 | 3.23% | 39 | 4.06% | 922 | 95.94% | 961 | 100.00% |
| Total Number of Unique Business* | 0 | 0.00% | 2 | 0.59% | 0 | 0.00% | 0 | 0.00% | 2 | 0.59% | 9 | 2.64% | 11 | 3.23% | 330 | 96.77% | 341 | 100.00% |

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As shown in Table 20, 11 M/WBEs (3.23%) were utilized in Goods during the Study Period, as compared to 330 Non-M/WBE businesses. As shown in Table 21, M/WBEs gained \$6,342,499 (9.02%) in contracting with the County in Goods compared with over \$63,958,265 spent with Non-M/WBEs during the same time frame. The average pay for M/WBEs in the Goods category was \$576,591 as compared to \$193,812 for Non-M/WBE vendors over the Study Period.

Table 20: Number of Businesses by Business Ownership and Fiscal Year
Prime Data, Goods
(Using Payment Dollars, FY 2017-2021)
Harford County Disparity Study

| Business Ownership Classification | 2017 (\$) | 2018 (\$) | 2019 (\$) | 2020 (\$) | 2021 (\$) | TOTAL (\$) |
|-----------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|
| Black American | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Asian American | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Hispanic American | \$ 1,150 | \$ 1,325 | \$ 275 | | \$ 1,250 | \$ 4,000 |
| Native American | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| TOTAL MINORITY | \$ 1,150 | \$ 1,325 | \$ 275 | \$ - | \$ 1,250 | \$ 4,000 |
| Nonminority Female | \$ 99,412 | \$ 109,034 | \$ 574,770 | \$ 384,165 | \$ 578,180 | \$ 1,745,560 |
| TOTAL M/WBE | \$ 100,562 | \$ 110,359 | \$ 575,045 | \$ 384,165 | \$ 579,430 | \$ 1,749,560 |
| NON-M/WBE | \$ 41,442,908 | \$ 41,126,955 | \$ 43,128,847 | \$ 19,880,865 | \$ 23,773,256 | \$ 169,352,832 |
| TOTAL FIRMS | \$ 41,543,470 | \$ 41,237,314 | \$ 43,703,892 | \$ 20,265,030 | \$ 24,352,686 | \$ 171,102,392 |
| Business Ownership Classification | 2017 (%) | 2018 (%) | 2019 (%) | 2020 (%) | 2021 (%) | TOTAL (%) |
| Black American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Asian American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Hispanic American | 0.00% | 0.00% | 0.00% | 0.00% | 0.01% | 0.00% |
| Native American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| TOTAL MINORITY | 0.00% | 0.00% | 0.00% | 0.00% | 0.01% | 0.00% |
| Nonminority Female | 0.24% | 0.26% | 1.32% | 1.90% | 2.37% | 1.02% |
| TOTAL M/WBE | 0.24% | 0.27% | 1.32% | 1.90% | 2.38% | 1.02% |
| NON-M/WBE | 99.76% | 99.73% | 98.68% | 98.10% | 97.62% | 98.98% |
| TOTAL FIRMS | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |

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**Table 21: Utilization of Prime Analysis in Relevant Market Area
Prime Data, Goods
(Using Payment Dollars, FY 2017-2021)
Harford County Disparity Study**

| Business Ownership Classification | 2017 (\$) | 2018 (\$) | 2019 (\$) | 2020 (\$) | 2021 (\$) | TOTAL (\$) |
|-----------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|
| Black American | | \$ - | | \$ - | \$ - | \$ - |
| Asian American | \$ 1,298,094 | \$ 276,510 | \$ 243,659 | \$ 614,693 | \$ 1,103,291 | \$ 3,536,247 |
| Hispanic American | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Native American | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| TOTAL MINORITY | \$ 1,298,094 | \$ 276,510 | \$ 243,659 | \$ 614,693 | \$ 1,103,291 | \$ 3,536,247 |
| Nonminority Female | \$ 388,052 | \$ 294,446 | \$ 505,418 | \$ 389,944 | \$ 1,228,392 | \$ 2,806,252 |
| TOTAL M/WBE | \$ 1,686,146 | \$ 570,955 | \$ 749,077 | \$ 1,004,637 | \$ 2,331,683 | \$ 6,342,499 |
| NON-M/WBE | \$10,252,705 | \$11,301,871 | \$15,979,886 | \$10,953,786 | \$15,470,017 | \$63,958,265 |
| TOTAL FIRMS | \$ 11,938,851 | \$ 11,872,826 | \$ 16,728,963 | \$ 11,958,423 | \$ 17,801,701 | \$70,300,764 |
| Business Ownership Classification | 2017 (%) | 2018 (%) | 2019 (%) | 2020 (%) | 2021 (%) | TOTAL (%) |
| Black American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Asian American | 10.87% | 2.33% | 1.46% | 5.14% | 6.20% | 5.03% |
| Hispanic American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Native American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| TOTAL MINORITY | 10.87% | 2.33% | 1.46% | 5.14% | 6.20% | 5.03% |
| Nonminority Female | 3.25% | 2.48% | 3.02% | 3.26% | 6.90% | 3.99% |
| TOTAL M/WBE | 14.12% | 4.81% | 4.48% | 8.40% | 13.10% | 9.02% |
| NON-M/WBE | 85.88% | 95.19% | 95.52% | 91.60% | 86.90% | 90.98% |
| TOTAL FIRMS | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |

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2. Subcontractor Utilization

In the Subcontractor Utilization table below, the dollars and percentage of dollars paid in each of the five (5) Industry Categories have been broken up by race/ethnicity and gender for each year of the Study Period.

M/WBEs received 4.69% of A&E subcontracting paid dollars (Table 17), the only area with reported M/WBE subcontracting dollars. M/WBEs received 0.45% of reported subcontract dollars across all Industry Categories, excluding Goods. There were no reported subcontract dollars in Goods.

SUBCONTRACTOR UTILIZATION is the percentage of dollars awarded to Subcontractors, by ethnic/gender category.

Table 22: Subcontractor Utilization Analysis in Relevant Market Area (Using Payment Dollars, FY 2017-2021)
Harford County Disparity Study

| Business Ownership Classification | Construction | A&E | Professional Services | Other Services | TOTAL |
|-----------------------------------|--------------------|------------------|-----------------------|------------------|--------------------|
| | (\$) | (\$) | (\$) | (\$) | (\$) |
| Black American | \$ - | \$ - | \$ - | \$ - | \$ - |
| Asian American | \$ - | \$ - | \$ - | \$ - | \$ - |
| Hispanic American | \$ - | \$ - | \$ - | \$ - | \$ - |
| Native American | \$ - | \$ - | \$ - | \$ - | \$ - |
| TOTAL MINORITY | \$ - | \$ - | \$ - | \$ - | \$ - |
| Nonminority Female | \$ - | \$ 40,994 | \$ - | \$ - | \$ 40,994 |
| TOTAL M/WBE | \$ - | \$ 40,994 | \$ - | \$ - | \$ 40,994 |
| NON-M/WBE | \$8,016,496 | \$832,772 | \$ 5,200 | \$122,172 | \$8,976,640 |
| TOTAL FIRMS | \$8,016,496 | \$873,766 | \$ 5,200 | \$122,172 | \$9,017,634 |
| Business Ownership Classification | Construction | A&E | Professional Services | Other Services | TOTAL |
| | (%) | (%) | (%) | (%) | (%) |
| Black American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Asian American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Hispanic American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Native American | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| TOTAL MINORITY | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Nonminority Female | 0.00% | 4.69% | 0.00% | 0.00% | 0.45% |
| TOTAL M/WBE | 0.00% | 4.69% | 0.00% | 0.00% | 0.45% |
| NON-M/WBE | 100.00% | 95.31% | 100.00% | 100.00% | 99.55% |
| TOTAL FIRMS | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |

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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 M/WBEs as measured against their Availability in the Harford County marketplace.

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

1. Methodology

The statistical approach to answer this question is to assess the existence and extent of disparity by comparing the M/WBE Utilization percentages (by dollars) to the percentage of the total pool of M/WBE firms in the relevant geographic and product areas. The actual disparity derived as a result of employing this approach is measured by use of a Disparity Index (DI).

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

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

The results obtained by a disparity analysis will result in one of three conclusions: overutilization, underutilization, or parity. Underutilization is when the Disparity Index is below one. Overutilization is when the Disparity Index is over one hundred. Parity or the absence of disparity is when the Disparity Index is one hundred 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 (-) or (Small Number) 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, racial 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 a statistically significant underutilization. The disparity indices impact as designated in the tables below as “overutilization”, “underutilization”, or “parity” have been bolded to indicate such statistically significant impact.

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 M/WBE group, and in each Industry Category.

The existence of a statistically significant disparity between the Availability and Utilization of MBE or Non-minority Woman-owned businesses which are 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 the County. 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 the County.

3. Prime Disparity Indices

There was underutilization in prime contracts for all M/WBEs groups, except firms owned by Asian Americans and Non-minority Women in Goods (Table 23).

There was disparity for all M/WBE groups for prime payments less than \$500,000 and less than \$1 million for all Industry Categories, except that Asian American owned firms were also overutilized in Construction for projects less than \$500,000 and less than \$1,000,000 (Appendix F).

There was underutilization in Subcontractor Utilization for all M/WBEs groups in all Industry Categories, except Goods in which there was no reported subcontracting (Table 24). Non-M/WBEs were overutilized in Prime Utilization and Subcontractor Utilization.

Table 23: Prime Utilization Analysis Summary
(Using Payment Dollars, FY 2017-2021) Harford County Disparity Indices
 Harford County Disparity Study

| Firm Ownership | Industry Categories | | | | |
|--------------------|---------------------|-----------------------------|-----------------------|----------------|---------------------|
| | Construction | Architectural & Engineering | Professional Services | Other Services | Goods & Commodities |
| Black American | 0.50 | 0.00 | 10.35 | 0.00 | 0.00 |
| Asian American | 14.93 | 0.00 | 0.00 | 0.00 | 433.76 |
| Hispanic American | 0.00 | 0.00 | 0.00 | 0.15 | 0.00 |
| Native American | 0.33 | 0.00 | 0.15 | 0.00 | 0.00 |
| TOTAL MBE | 4.25 | 0.00 | 8.64 | 0.01 | 88.11 |
| Nonminority Woman | 65.99 | 31.43 | 4.26 | 26.98 | 117.76 |
| TOTAL M/WBE | 15.84 | 8.32 | 8.35 | 4.73 | 99.15 |
| Non-M/WBE | 134.65 | 128.51 | 132.84 | 126.31 | 100.08 |

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Legend:

| |
|--|
| Significant Underutilization (Disparity percentage below 80%). |
| Disparity (Disparity percentage 80% to 99.9%). |
| Overutilization (Disparity percentage over 100%). |
| No color is parity |

Table 24: Subcontractor Utilization Analysis Summary
(Using Payment Dollars, FY 2017-2021)
 Harford County Disparity Study

| Firm Ownership | Construction | Architectural & Engineering | Professional Services | Other Services |
|--------------------|--------------|-----------------------------|-----------------------|----------------|
| Black American | 0.00 | 0.00 | 0.00 | 0.00 |
| Asian American | 0.00 | 0.00 | 0.00 | 0.00 |
| Hispanic American | 0.00 | 0.00 | 0.00 | 0.00 |
| Native American | 0.00 | 0.00 | 0.00 | 0.00 |
| TOTAL MBE | 0.00 | 0.00 | 0.00 | 0.00 |
| Nonminority Woman | 0.00 | 74.72 | 0.00 | 0.00 |
| TOTAL M/WBE | 0.00 | 19.78 | 0.00 | 0.00 |
| Non-M/WBE | 141.18 | 124.95 | 135.83 | 127.61 |

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Legend:

| |
|--|
| Significant Underutilization (Disparity percentage below 80%). |
| Disparity (Disparity percentage 80% to 99.9%). |
| Overutilization (Disparity percentage over 100%). |
| No color is parity |

H. Conclusion

GSPC's analysis of the number of vendors utilized in each procurement category along with the total Utilization for the Industry Categories revealed a proportionately smaller number of M/WBE businesses were utilized in all Industry Categories. There was underutilization in prime contracts for all M/WBEs groups, except firms owned by Asian Americans and Non-minority Women in Goods. There was disparity for all M/WBE groups for prime payments less than \$500,000 and less than \$1 million for all Industry Categories, except that Asian American-owned firms were also overutilized in Construction for projects less than \$500,000 and less than \$1,000,000. There was underutilization in Subcontractor Utilization for all M/WBEs groups in all Industry Categories, except Goods in which there was no reported subcontracting. Non-M/WBEs were overutilized in Prime Utilization and Subcontractor Utilization.

VI. ANALYSIS OF MARKETPLACE CONTRACTING DISPARITIES IN THE HARFORD COUNTY MARKET AREA

A. Introduction

In this section GSPC considers the market entry, private sector, public contracting and subcontracting outcomes, and other relevant market experiences of Minority- and Women-owned firms relative to Non-M/WBE firms in the Harford County Market Area⁴⁶. The analysis utilizes data from businesses that are willing, able, or have actually contracted/subcontracted in the Harford County Market Area, with the aim of determining if the likelihood of successful contracting/subcontracting opportunities – actual and perceived – in the Harford County Market Area 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 compliment to estimating simple disparity indices, which assume all things important for success and failure are equal among businesses competing for public contracts.

This analysis is based on unconditional moments, that is, statistics that do not necessarily inform causality or the source of differences across such statistics. As simple disparity indices do not condition on possible confounders⁴⁷ of new firm entry, and success and failure in public sector contracting/subcontracting by businesses, they are only suggestive of disparate treatment, and their implied likelihood of success/failure could be biased. Further details on this statistical analysis is provided in Appendix G.

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

A broad context for considering disparities by firm ownership status can be informed by examining private sector outcomes in the relevant Harford County Market Area. In general, the success and failure of M/WBEs 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

⁴⁶ In particular, the relevant market is the Baltimore-Columbia-Towson Metropolitan Statistical Area (“MSA”) from the US Census Bureau.

⁴⁷ A confounder can be defined as a variable that, when added to the regression model, changes the estimate of the association between the main independent variable of interest (exposure) and the dependent variable (outcome) by 10% or more.

disparity analyses in the "but-for" justification. Ian Ayres and Frederick E. 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 increase the cost which Minority owned businesses can provide services required under public contracts relative to Non-minority owned businesses.⁴⁸

This private discrimination means that M/WBEs may only have recourse to higher cost financing due to discrimination in private sector capital markets, which compromises the competitiveness of their bids. Such a perspective on discrimination suggests that barriers faced by M/WBEs 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.

B. Firm Revenue

Table 25 below reports on firm ownership type and "proxied" sales revenue for the Baltimore-Columbia-Towson Metropolitan Statistical area ("Harford County Market Area") from the US Census Bureau's Annual Business Survey (ABS) for *Employer Firms*.⁴⁹ GSPC's descriptive private sector analysis considers the percentage of representation in the population of firms and revenue across the available and relevant firm ownership type classifications. Measuring at the firm level, business ownership is defined as having more than 50% of the stock or equity in the business and is categorized by sex, ethnicity, race, veteran status, and being publicly held.

As the numerical value of firm sales is not reported, it is proxied by firm payroll – which is proportional to sales. The number of firms classifiable as minority-owned was too small to disclose for confidentially reasons in the 2019 ABS data and was suppressed. For the Harford County Market Area, Table 23 reveals that Caucasian-owned firms account for approximately 38% of the revenue in the Harford County Market Area. This share is substantially higher than any of the reported revenues shares for non-Caucasian firms, and the highest estimate for non-Caucasian firms is that of Women – which is approximately 7%.

⁴⁸ See: Ayres, Ian, and Fredrick E. Vars. 1998, "When does private discrimination justify public affirmative action?" *Columbia Law Review*, 98: 1577-1641.

⁴⁹ The Census Bureau ABS defines an employer firm as any firm that had a payroll during the survey year. ABS data are publicly available at <https://www.census.gov/programs-surveys/abs/data.html>. The ABS provides information on selected economic and demographic characteristics for businesses and business owners by sex, ethnicity, race, and veteran status. Further, the survey measures research and development (for microbusinesses), new business topics such as innovation and technology, as well as other business characteristics. The ABS is conducted jointly by the U.S. Census Bureau and the National Center for Science and Engineering Statistics within the National Science Foundation. It replaces the five-year Survey of Business Owners for employer businesses, the Annual Survey of Entrepreneurs, the Business R&D and Innovation for Microbusinesses survey, and the innovation section of the Business R&D and Innovation Survey. The most recent data for the Baltimore-Columbia-Towson MSA for which firm revenue data are available is for the year 2019.

In general, all M/WBEs have estimated revenue shares far smaller than their firm representation shares. This is consistent with and suggestive of, but not necessarily causal evidence for, M/WBEs facing discriminatory barriers in the private sector of the Harford County Market Area.⁵⁰

**Table 25: Firm Ownership Type and Revenue Characteristics
Harford County Market Area:
Census Bureau Annual Business Survey**

| Ownership Structure | Number of Employer Firms | Percentage of all Firms (approximate) | Market Area Total Payroll (\$1,000) | Percentage of Market Area Total Payroll (approximate) | Ratio of Firm Share to Proxied Revenue Share |
|---|--------------------------|---------------------------------------|-------------------------------------|---|--|
| All | 51,461 | 100 | \$69,822,308 | 100 | 1.0 |
| Women | 11,456 | .223 | \$4,693,216 | .067 | 3.33 |
| White | 38,926 | .756 | \$26,176,882 | .375 | 2.02 |
| African American | 2,755 | .053 | \$1,517,149 | .022 | 2.41 |
| American Indian & Alaskan Native | 150 | .003 | \$41,845 | .0006 | 5.0 |
| Asian American | 6,334 | .123 | \$1,790,348 | .026 | 4.73 |
| Native Hawaiian & Other Pacific Islanders ^a | Suppressed ^a | Suppressed ^a | Suppressed ^a | Suppressed ^a | Suppressed ^a |
| Hispanic | 1,197 | .024 | \$595,729 | .008 | 3.0 |
| Publicly Held and not classifiable by race, gender, ethnicity | 3,490 | .068 | \$40,360,368 | .422 | .161 |

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Overall, the descriptive summary in Table 25 suggests that in the Harford County Market Area private sector, M/WBEs face barriers that translate into lower firm revenues.⁵¹ In general, if being an M/WBE in

⁵⁰ This can be ascertained by simply computing the ratio of each M/WBEs firm share to total revenue share. For example, in the case of firms owned by Women, this ratio is approximately 3.33, in contrast to approximately 2.02 for firms owned by Non-M/WBEs. This implies that in order for Women to reach parity with Non-M/WBE-owned firms, their revenue would have to be increased by $(3.33)/(2.02) = 1.65$ times. In this context, relative to firms owned by Non-M/WBE, firms owned by Women are more “revenue underrepresented” with respect to their firm share. For a given firm classification, 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 than unity indicates overrepresentation.

⁵¹ US Census Bureau 2019 Annual Business Survey.^a Either some, or all values suppressed to preserve confidentiality as a result of very few firms, or there are one or two large firms that dominate the statistic. In general, across the payroll and counts for each type of firm in the ABS, there were in many instances data

the Harford County 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 M/WBEs in the Harford County Market Area is suggestive, but does not necessarily prove, the existence of private discrimination that undermines their capacity to compete with Non-M/WBEs for public contracting opportunities. This could motivate a private discrimination justification for Affirmative Action in City procurement policies; otherwise there is potentially a passive participant in private discrimination against M/WBEs with respect to its procurement practices.

C. Self-Employment

The Concrete Works decision upholding a M/WBE program was based in part on evidence that “African Americans, Hispanics, and Native Americans working in Construction have lower rates of self-employment than similarly situated Caucasians.”⁵²

To explicitly examine potential disparities in the rates of business ownership in the Harford County Market Area, GSPC estimated the parameters of a Logit regression model using 2019 American Community Survey (ACS) data from the Integrated Public Use Microdata Series (IPUMS) housed at the University of Minnesota.⁵³ 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 2019 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 M/WBE status on self-employment while minimizing and/or eliminating confounding factors.⁵⁴ 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 in the tables for all parameter estimates.

suppressions due to confidentiality, unreliable estimates, or lack of availability. As such, the descriptive statistics reported in Table 23 are what was *estimable* in the ABS.

⁷² Concrete Works v. City and County of Denver, 321 F.3 950 (10th Cir 2003).

⁵³ 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.V10.0>

⁵⁴ 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.

The ACS data define the Harford County Market Area as the Baltimore–Columbia–Towson Metropolitan Statistical Area (MSA). In particular, GSPC selected the ACS sample on the basis of the MET 2013 variable, which identifies MSAs using the 2013 definitions for MSA from the U.S. Office of Management and Budget (OMB). An MSA is a region consisting of a large urban core together with surrounding communities that have a high degree of economic and social integration with the urban core.

In the GSPC Logit regression model of self-employment, the estimated parameters are odds ratios, and when greater (or less) than unity indicate that having a particular characteristics increases (or decreases) the likelihood of being self-employed. In the case of the M/WBE status indicators (e.g. African American, Woman), the excluded category is Caucasian Males, and a positive (or negative) odds ratio indicates that relative to Caucasian Males, having that M/WBE characteristic increases (or decreases) the likelihood of being self-employed in the Harford County Market Area. The M/WBE status indicator are of primary interest, as they inform the extent to which M/WBE status is a driver of disparities in outcomes. The other covariates serve as controls for firm capacity. The capacity to do business is conceptually defined as how much, and how effectively/efficiently, a firm can produce and sell within a market, independent of M/WBE status. In particular, GSPC measures a firm's capacity for public contracting as a function of owner's education, firm revenue, its financing capacity, and its bonding capacity. Each of these control covariates capture fundamental capabilities associated with a firm's capacity to produce and sell a good/service effectively and efficiently.

Table 26 reports parameter estimates across all business sectors in the Harford County Market Area. Relative to Caucasians, African Americans and Women are less likely to be self-employed, as the estimated odds ratio is less than unity and statistically significant in these instances. This is suggestive of these type of firms facing barriers to self-employment in the Harford County Market Area. The lower self-employment likelihood of these type of M/WBEs could reflect disparities in public contracting as Chatterji, Chay, and Fairlie (2014) find that the self-employment rate of African Americans is increasing with respect to the provisioning and establishment of M/WBE public procurement programs.⁵⁵

Table 27 reports parameter estimates for Construction in the Harford County Market Area — an important sector in the market for public procurement. The estimated odds ratios less than unity with statistical significance suggest that relative to Non-Minority Men, Women, African Americans, Native Americans, Pacific Islanders, and Asian Americans are less likely to be self-employed in the Harford County Market Area construction sector. This is suggestive of these type of firms facing barriers to self-employment in the Harford County Market Area construction sector. The lower likelihood of these type of M/WBEs being self-employed in the construction sector could reflect disparities in public contracting, as Marion (2009) finds that the self-employment rate of African Americans in construction is increasing with respect to the provisioning and establishment of M/WBE public construction procurement programs.⁵⁶

⁵⁵ 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.

⁵⁶ Marion, Justin. 2009. "Firm Racial Segregation and Affirmative Action in the Highway Construction Industry." *Small Business Economics* 33: Article 441.

**Table 26: Self-Employment/Business Ownership in
Harford County Market Area:
Logit Parameter Odds Ratio Estimates From
The 2019 Community Survey**

| | Coefficient | P-value |
|--|--------------------|----------------|
| <i>Regressand:</i> Self-Employed: Binary | | |
| Age | 1.0382 | 0.0024 |
| Age Squared | 0.9999 | 0.6449 |
| Respondent is Married: Binary | 1.1824 | 0.0551 |
| Respondent is Woman: Binary | 0.6756 | 0.0000 |
| Respondent is Non-Hispanic African American: Binary | 0.6927 | 0.0007 |
| Respondent is Non-Caucasian Hispanic: Binary | 1.1697 | 0.4907 |
| Respondent is Native American: Binary | 0.8081 | 0.6659 |
| Respondent is a Pacific Islander: Binary | 1.2447 | 0.7306 |
| Respondent is Asian American: Binary | 1.1083 | 0.4440 |
| Respondent is Other Race: Binary | 0.8234 | 0.6121 |
| Respondent is veteran: Binary | 0.6604 | 0.0042 |
| Respondent has a 4-year degree: Binary | 0.8621 | 0.1144 |
| Respondent speaks only English: Binary | 0.6977 | 0.0026 |
| Respondent is Disabled: Binary | 0.8453 | 0.6562 |
| Value of Home | 1.1341 | 0.0000 |
| Interest, Dividend, and Rental Income | 1.0427 | 0.2735 |
| Mortgage Payment | 1.1342 | 0.0041 |
| Number of Observations | 12,011 | |
| Pseudo R ² | 0.0495 | |

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Source of Data: American Community Survey 2019, IPUMs US

Table 27: Construction Sector Self-Employment/Business Ownership in Harford County Market Area: Logit Parameter Odds Ratio Estimates From The 2019 American Community Survey

| | Coefficient | P-value |
|---|-------------|---------------|
| <i>Regressand:</i> Self-Employed In Construction Industry: Binary | | |
| Age | 1.1507 | 0.0000 |
| Age Squared | 0.9988 | 0.0002 |
| Respondent is Married: Binary | 1.6946 | 0.0270 |
| Respondent is Woman: Binary | 0.1497 | 0.0000 |
| Respondent is Non-Hispanic African American: Binary | 0.3916 | 0.0184 |
| Respondent is Non-Caucasian Hispanic: Binary | 0.9658 | 0.9349 |
| Respondent is Native American: Binary | 0.00121 | 0.0000 |
| Respondent is a Pacific Islander: Binary | 0.02145 | 0.0000 |
| Respondent is Asian American: Binary | 0.1435 | 0.0221 |
| Respondent is Other Race: Binary | 3.7305 | 0.0313 |
| Respondent is veteran: Binary | 0.3776 | 0.0089 |
| Respondent has a 4-year degree: Binary | 0.5414 | 0.0139 |
| Respondent speaks only English: Binary | 0.7428 | 0.2963 |
| Respondent is Disabled: Binary | 0.0000 | 0.0000 |
| Value of Home | 1.0000 | 0.0000 |
| Interest, Dividend, and Rental Income | 1.0000 | 0.3342 |
| Mortgage Payment | 1.0000 | 0.7264 |
| Number of Observations | 11952 | |
| Pseudo R ² | 0.1183 | |

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Source of Data: American Community Survey 2019, IPUMs USA

D. Building Permit Analysis

To enable a closer look at the extent of M/WBEs participation in the overall Harford County relevant Market Area, Table A reports on the distribution of building permits by identifiable firm type in the County between 1/7/16-2/28/22. While building permits are directly related to the construction industry, construction activities are a vital component of an economy, and engender spending on other economic activities. As such, an analysis of the distribution of building permits by firm type can inform the extent to which M/WBEs are participating in the market economy of a given political jurisdiction such as Harford County.

GSPC’s analysis of commercial building permits in the Harford County Market Area linked rosters of identified M/WBE firms to submitted building permits between 1/7/16-2/28/22. GSPC utilized a Fuzzy Matching (FM) procedure to link the text strings of firm names in the certified vendor matching list, along with any race, ethnicity, and gender identifiers to the firm names in the building permit applications. FM enables linking two data sets together that do not have a unique identifier common to both data sets to produce one that is common across a particular alphabetic string such as the name of a business/firm. A

Python-enabled FM was utilized to identify M/WBE and Non-M/WBE business enterprises (M/WBE) firms from the County building permit data, which ultimately consisted of 11,756 entries with text strings indicating the names of businesses/firms that submitted and approved for, commercial building permit applications.

Given GSPC's FM-enabled identification of M/WBE firms, Table 28 reports the distribution of building permits by firm type in the County. The matching algorithm enable the identification of firms broadly classified as M/WBE, and those who are owned by Asian American, African Americans, Hispanics, Native Americans, and Women. In the case of the race/gender identifications, there is no inherent mutual exclusivity with the a M/WBE classification, with some of the firms identified as being owned by African American and Women not necessarily certified as M/WBEs relevent to the County's public procurement.

The distribution of commercial building permits reported in Table 28 reveals that the total number of building permits going to any of the firm types that could be classified as M/WBE was 248, which constituted approximately 2% of all commercial building permits issued. Among M/WBEs firms identified as Women-owned had the highest share, and Native American-owned firms had a zero share.

The estimated low commercial building permit shares for M/WBEs in the Harford County Market Area is suggestive of private sector barriers that constrain the ability of these type of firms to participate in the economy. GSPC estimates suggest that firms not classified as M/WBEs – or Non-M/WBEs – accounted for approximately 98% of building permits in the Harford County Market Area. To the extent that experience acquired by participating in the private sector translates into an enhanced capacity to compete in the market for public sector contracts and subcontracts, the almost complete dominance of non-M/WBEs in securing building permits suggests the presence of private sector barriers faced by M/WBEs. In this context, if there are any public contracting/subcontracting disparities between M/WBEs and non-M/WBEs in the Harford County Market Area, it could constitute passive discrimination against M/WBEs, as the disparities could reflect barriers, possibly discriminatory, that M/WBEs face in the private sector that serve to undermine their capacity to compete for contracts and subcontracts with Harford County.

**Table 28: Distribution of Building Permits
In Harford County Market Area
7/9/16 – 6/29/21**

| Business/Firm Type | Number of Building Permits ^a | Percent of Building Permits ^b |
|---|---|--|
| Asian American-owned | 100 | .00851 |
| African American-owned | 39 | .00332 |
| Hispanic-owned | 25 | .00213 |
| Native American-owned | 10 | .00085 |
| Women-owned | 74 | .00629 |
| Total M/WBE, or Asian American, African American, Hispanic, Native American or Women Owned Firms | 248 | .02109 |
| Total Non-M/WBEs | 11,508 | .97890 |
| Total | 11,756 | 1.000 |

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Notes: ^a Rounded to nearest integer

^b Rounded to nearest 10 thousandth

E. Bank Loan Denials

To the extent that Small, Minority, Women, and Disadvantaged firms (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 credit markets can rationalize targeted public contracting programs by political jurisdictions, and the capacity and growth of SMWDBEs could be enhanced with access to public contracting opportunities (Bates, 2009).⁵⁷

To determine if SMWDBEs face barriers in the private credit market in the Harford County Market Area, Tables 29-30 report, for each of the distinct SMWDBEs and owner self-reported race/ethnicity/gender ownership characteristics in the GSPC sample, the estimated parameters of an Ordinal Logit MEBRM with the dependent variable being a categorical variable for the number of times the firm was denied a private commercial bank loan over the 2016-2021 time period.

⁵⁷ 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.

The estimated odds ratios in Table 29 reveal that for the four distinct broadly classified SMWDBEs in the GSPC sample, relative to non-SMWDBEs – the excluded group in the CRM specification – the number of commercial bank loan denials is higher for firms certified as Minority. This suggests that in the Harford County Market Area, these type of SMWDBEs face barriers in the private credit market. When disaggregated by the race/ethnicity/gender of owners, the results in Table 30 suggest that firms owned by African Americans have more commercial bank loan denials relative to non-SMWDBEs as the estimated odds ratio is greater than unity and statistically significant in these instance. This suggests that among SMWDBEs in the Harford County Market Area, firms that are owned by African Americans – who are not necessarily certified SMWDBEs – are relatively more likely to have their capacity to compete in the market for public procurement constrained as a result of private sector credit market discrimination.

**Table 29: Mixed Effect Ordinal Logit Parameter Estimates-Bank Loan Denials (Odds Ratio)
Owner Racial/Ethnic Status and Commercial Bank Loan Denials
In Harford County Market Area**

| | Coefficient | P-value |
|---|-------------|---------------|
| <i>Regressand:</i> Number of times denied commercial bank loan: (Ordinal) | | |
| Firm owner has more than 20 years experience: (Binary) | 1.3663 | 0.3672 |
| Firm has more than 10 employees: (Binary) | 1.0038 | 0.9916 |
| Firm owner has a baccalaureate degree: (Binary) | 1.0031 | 0.9918 |
| Firm gross revenue greater than 1.5 million: (Binary) | 1.9556 | 0.1205 |
| Firm Bonding limit greater than 1.5 million: (Binary) | 1.1642 | 0.6723 |
| Financing is a barrier for securing Harford Co. projects: (Binary) | 0.0566 | 0.0000 |
| Firm is in the construction sector: (Binary) | 2.9433 | 0.0055 |
| Firm is registered to do business with Harford Co.: (Binary) | 0.6750 | 0.2357 |
| Firm is a willing/able prime contractor for Harford Co.: (Binary) | 3.0352 | 0.0415 |
| Firm is a willing/able subcontractor for Harford Co.: (Binary) | 0.2554 | 0.0269 |
| Firm is a certified minority business enterprise: (Binary) | 2.1497 | 0.0392 |
| Firm is a certified woman enterprise: (Binary) | 0.7463 | 0.4214 |
| Firm is a certified disadvantaged business enterprise: (Binary) | 1.4305 | 0.4242 |
| Firm is a certified small business enterprise: (Binary) | 0.7195 | 0.3265 |
| Number of Observations | 231 | |
| Pseudo R ² | .539 | |

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Table 30: Mixed Effect Ordinal Logit Parameter Estimates-SMWBE Commercial Bank Loan Denials
SMWBE Status and Commercial Bank Loan Denials
In Harford County Market Area

| | Coefficient | P-value |
|---|-------------|---------------|
| <i>Regressand:</i> Number of times denied commercial bank loan: (Ordinal) | | |
| Firm owner has more than 20 years experience: (Binary) | 1.5230 | 0.2414 |
| Firm has more than 10 employees: (Binary) | 0.9901 | 0.9782 |
| Firm owner has a baccalaureate degree: (Binary) | 1.1496 | 0.6510 |
| Firm gross revenue greater than 1.5 million: (Binary) | 2.0003 | 0.1123 |
| Firm Bonding limit greater than 1.5 million: (Binary) | 1.2570 | 0.5295 |
| Financing is a barrier for securing Harford Co. projects: (Binary) | 0.0625 | 0.0000 |
| Firm is in the construction sector: (Binary) | 2.9872 | 0.0055 |
| Firm is registered to do business with Harford Co.: (Binary) | 0.7565 | 0.3647 |
| Firm is a willing/able prime contractor for Harford Co.: (Binary) | 2.6161 | 0.0769 |
| Firm is a willing/able subcontractor for Harford Co.: (Binary) | 0.2301 | 0.0173 |
| Firm is African American-owned: (Binary) | 3.0083 | 0.0030 |
| Firm is Hispanic-owned: (Binary) | 1.6466 | 0.4435 |
| Firm is Asian American-owned: (Binary) | 0.2917 | 0.1237 |
| Firm is Bi/Multiracial-owned: (Binary) | 0.2775 | 0.2203 |
| Firm is Other race-owned: (Binary) | 1.5451 | 0.5051 |
| Firm is Woman-owned: (Binary) | 0.7747 | 0.3836 |
| Number of Observations | 231 | |
| Pseudo R ² | .513 | |

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F. Conclusion

A descriptive and inferential private sector analysis of the Harford County Market Area revealed that, in general, being an M/WBE in the Harford County Market Area is associated with lower firm revenue relative to non-M/WBE firms, and less than proportionate to their market firm share. For firms owned by Asian Americans, African Americans, Native Americans, Pacific Islanders, and Women, self-employment likelihoods are lower overall, and in the construction sector, which lends some support to the “but-for” justification for affirmative action in public procurement – a policy intervention which can increase the self-employment outcomes of SMWDBEs. Lower revenues for SMWDBEs in the Harford County Market Area are suggestive of private sector discrimination that undermines their capacity to enter the market and compete with non-SMWDBEs firms for public contracting and subcontracting opportunities. An analysis

of the distribution of building permits reveals that non-SMWDBEs dominate economic activity in the Harford County Market Area.

The virtual complete dominance of Non-SMWDBEs in securing building permits suggest the presence of private sector barriers faced by SMWDBEs that inhibit their ability to gain access to contracting/subcontracting opportunities with the Harford County. Certified Minority and firms owned by African Americans also appear to face credit constraints in the private capital market as relative to Non-SMWDBEs, they are more likely to have been denied commercial bank loans.

In other relevant outcomes, the regression results reported in Appendix G provide specific detail on which particular SMWDBEs in the broad Harford County Market Area are potentially constrained by additional factors that could translate into lower likelihoods of winning prime contracts. Firms owned by African Americans, Other Race, and Women are particularly harmed by perceived discrimination against them by Harford County. Firms owned by Women are also relatively more likely to have never secured a Harford County prime contract or subcontract. GSPC also found that among SMWDBEs in the Harford County Market Area, firms certified/classified as Minority, and those owned by African Americans, Other Race, and Women, are relatively more likely to have their capacity to compete in the market for public procurement constrained as a result of being excluded from informal contracting networks that enhance success in winning public contracts.

VII. ANECDOTAL EVIDENCE

A. Introduction

The objective of this chapter of the Study is to present and analyze the experiences, perceptions, and beliefs of individuals, businesses, and groups in and around Harford County, Maryland. The quotes, themes, and conversations presented are not intended to be representative of every single community member or even much of the community but are an attempt to authentically represent the variety of individual perspectives about the County's contracting, procurement and M/WBE utilization. Those experiences can be and often are perceived differently from person to person, so it is possible readers recollect experiences differently than those referenced. However, perceived experiences inform and undergird beliefs and those beliefs then inform and undergird behavior. Since the behavior of all parties involved in contracting and procurement is relevant to the Study, the beliefs, experiences, and perceptions integral to those beliefs are as well.

GSPC did not seek to verify, disprove, or correct insights shared by participants in anecdotal data collection to honor the integrity of the information gathered. Therefore, there may be conclusions included which are not reflective of written policy and procedures, but those conclusions are included to provide readers with as much information as possible about the community's experience doing or attempting to do business with the County. They may also serve to highlight areas where communication between the County and the public regarding policy and procedure can be bolstered or improved.

GSPC used a variety of methods to gather evidence from a diverse collection of participants. GSPC convened three virtual public engagement meetings on July 20 and 21, and on August 31 in 2022 which were widely publicized through social media, press releases to area news outlets, email blasts, and an announcement on the Study website. In addition, the Study team engaged with 30 diverse local vendors and businesses randomly selected for interviews conducted between April 19, 2022, and May 2, 2022. The Study team also assembled a pair of virtual focus groups from stakeholders who were randomly selected to facilitate discussions about working with the County on October 25 and 26, 2022. Both anecdotal interviews and focus groups participants were selected from a list of vendors from the Harford County marketplace. This vendor list was categorized by their ethnicities and later randomized. Recruitment for both interviews and focus groups were done via telephone. Both the focus groups and public meetings were held online to adhere to safe social distancing practices recommended by state and federal governments during the ongoing COVID-19 crisis. Finally, GSPC circulated an Online Survey of Business Owners widely throughout the area asking for detailed information about demographics and previous or current experience working with the County, and the Study team collected data from 231 respondents.

By synthesizing and spotlighting specific themes expressed in these focus groups, interviews, surveys, and public meetings, this analysis seeks to empower the County with comprehensive findings to inform effective recommendations.

The data gathered from survey responses, interviews, focus groups, and public hearings were analyzed and reflected several common themes representing barriers that M/WBEs encounter doing business with

County. Those themes include Registration, Certification and Bidding Outreach and Support, Lack of Understanding of Bidding Processes, Contract Sizing, Excessive Paperwork/Insufficient Time To Bid, Accountability To Utilize M/WBEs, Unfair Competition With Larger Firms, and Informal Networks Monopolizing Business With The County.

| Key Themes from Anecdotal Data Analysis | |
|--|---|
| 1 | Registration, Certification and Bidding Outreach and Support |
| 2 | Lack of Understanding of Bidding Process |
| 3 | Contract Sizing |
| 4 | Excessive Paperwork/Insufficient Time To Bid |
| 5 | Accountability To Utilize M/WBEs |
| 6 | Unfair Competition With Larger Firms |
| 7 | Informal Networks Monopolizing Business |

B. Registration, Certification, and Bidding Outreach and Support

As a result of anecdotal data collected during the Study, one theme identified was Outreach and Support for Registration, Certification, and Bidding. In multiple forums, business owners expressed concerns about getting access to bidding information, a dearth of chances to contact or meet with decision makers on project planning, limited outreach to MBE and WBE participation, and little to no feedback from County officials regarding bidding award results. There were, however, business owners who contended that their experiences receiving information from the County were positive, so long as they had completed the County’s registration process. But for those companies that viewed communication as an issue, finding out how to register or become certified as a minority, Women, Disadvantaged or Small business with the County, or that registration or certification were even possible presented part of the problem.

The Survey of Business Owners conducted by the Study team does not directly address the aforementioned concerns or commendations regarding outreach from the County surrounding the bidding process. The 231 survey participants do, however, respond to questions around registering or becoming certified with the County, which is a common engagement point for doing business. While evidence of the amount of business registration achieved or not achieved by firms seeking to bid on public projects does not provide a direct correlation to the level of outreach offered by the County’s procurement process, it can speak to and quantify some areas where communication is lost regarding the efforts to do business with the County. Therefore, survey results revealing a lack of understanding or knowledge of the registry process may answer why business owners did not register to contract with the County without directly aligning with anecdotal commentary from business owners who felt a need for more outreach and supportive services from the County to promote and aid with the registry, certification, and contract bidding processes.

Of the 231 business owners queried, 38.1% answered “No” when asked “Is your company a certified minority, Women, Disadvantaged or Small business?” (See Table 1 below and Appendix I Survey of Business Owners: Table 59). Responding in the affirmative were 61.9%. It should be noted that the

County does not certify M/WBEs or SBEs but has recently used Maryland Department of Transportation certification to track spending with M/WBE (see Policy Chapter).

Table 1. Is your company a certified Minority, Woman, Disadvantaged or Small business?

| Responses | Owners' Minority Status | | | | | | Total |
|--------------|-------------------------|--------|--------|--------|----------|---------------------------|--------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| Yes | 30 | 38 | 57 | 6 | 8 | 4 | 143 |
| | 46.9 % | 53.5 % | 85.1 % | 66.7 % | 66.7 % | 50 % | 61.9 % |
| No | 34 | 33 | 10 | 3 | 4 | 4 | 88 |
| | 53.1 % | 46.5 % | 14.9 % | 33.3 % | 33.3 % | 50 % | 38.1 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

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Of the 88 business owners who identified that they were not certified with the County, 34.1%, or just over one-third, said they did not understand the certification process (See Table 2 below and Appendix I Survey of Business Owners: Table 65). That includes 60% of Black owned firms, 42.4% of Women-owned firms, and 23.5% of Non-minority-owned firms.

Table 2. Why is your company not certified as a Minority, Woman, Disadvantaged or Small business? (Please check all that apply) [I do not understand the certification process]

| Responses | Owners' Minority Status | | | | | | Total |
|--------------|-------------------------|--------|-------|-------|----------|---------------------------|--------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| Not Selected | 26 | 19 | 4 | 3 | 3 | 3 | 58 |
| | 76.5 % | 57.6 % | 40 % | 100 % | 75 % | 75 % | 65.9 % |
| Selected | 8 | 14 | 6 | 0 | 1 | 1 | 30 |
| | 23.5 % | 42.4 % | 60 % | 0 % | 25 % | 25 % | 34.1 % |
| Total | 34 | 33 | 10 | 3 | 4 | 4 | 88 |

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When asked if their respective companies were registered with eMaryland Marketplace, the statewide online registry that is used to keep a list of vendors interested in pursuing County projects (see the Policy Chapter), more than one-third (35.1%) said “No.” That includes 42.3% of Women-owned firms, 35.9% of Non-minority-owned firms, and 26.9% of Black-owned firms (See Table 3 below and Appendix I Survey of Business Owners: Table 15). Another 19% said they were not sure.

Table 3. Is your company registered with eMaryland Marketplace?

| Responses | <i>Owners' Minority Status</i> | | | | | | Total |
|-----------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| Yes | 26 | 23 | 42 | 5 | 9 | 1 | 106 |
| | 40.6 % | 32.4 % | 62.7 % | 55.6 % | 75 % | 12.5 % | 45.9 % |
| No | 23 | 30 | 18 | 2 | 3 | 5 | 81 |
| | 35.9 % | 42.3 % | 26.9 % | 22.2 % | 25 % | 62.5 % | 35.1 % |
| Not sure | 15 | 18 | 7 | 2 | 0 | 2 | 44 |
| | 23.4 % | 25.4 % | 10.4 % | 22.2 % | 0 % | 25 % | 19 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

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Of the 125 businesses that acknowledged that they were not registered with the eMaryland Marketplace, 58.4% told GSPC they were unaware there was a registry (See Table 4 below and Appendix I Survey of Business Owners: Table 18). Among that same group of unregistered business owners, 20.8% said they did not know how to register (See Table 5 below and Appendix I Survey of Business Owners: Table 17).

Table 4. Why is your company not registered with eMaryland Marketplace? Did not know there was a registry.

| Responses | <i>Owners' Minority Status</i> | | | | | | Total |
|---------------------|--------------------------------|--------|-------|-------|----------|---------------------------|--------------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| Not Selected | 19 | 22 | 7 | 3 | 1 | 0 | 52 |
| | 50 % | 45.8 % | 28 % | 75 % | 33.3 % | 0 % | 41.6 % |
| Selected | 19 | 26 | 18 | 1 | 2 | 7 | 73 |
| | 50 % | 54.2 % | 72 % | 25 % | 66.7 % | 100 % | 58.4 % |
| Total | 38 | 48 | 25 | 4 | 3 | 7 | 125 |

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Table 5. Why is your company not registered with eMaryland Marketplace? Do not know how to register.

| Responses | Owners' Minority Status | | | | | | Total |
|--------------|-------------------------|--------|-------|-------|----------|---------------------------|--------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| Not Selected | 31 | 39 | 18 | 3 | 2 | 6 | 99 |
| | 81.6 % | 81.2 % | 72 % | 75 % | 66.7 % | 85.7 % | 79.2 % |
| Selected | 7 | 9 | 7 | 1 | 1 | 1 | 26 |
| | 18.4 % | 18.8 % | 28 % | 25 % | 33.3 % | 14.3 % | 20.8 % |
| Total | 38 | 48 | 25 | 4 | 3 | 7 | 125 |

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In addition to survey responses addressing registering and certifying with the County, the various anecdotal engagements conducted by the Study team found business owners and area business stakeholders gave frequent recommendations about how County procurement officials could improve outreach and support, particularly to minority-owned, Women-owned, and small businesses. “The County should reach out to the Small Businesses to get to know them and do mixers to connect them to primes,” said Hispanic-owned landscaping business AI-7. “Do set asides for small minority businesses, making sure minorities get real work from contracts awarded to primes.” Another suggestion was that the County maintain its own records of potential vendors rather than collecting them on eMaryland Marketplace. “The County should also update or hold their own procurement vendor list,” Woman-owned staffing firm AI-21 said. “This way when RFPs are released, the county will have a current list to defer to and can send small businesses direct invites to peruse the RFPs. Other surrounding municipalities use this practice, and it is very effective as many M/WBEs do not have a lot of manpower to search for RFPs.”

Other businesses recommended County-sponsored outreach meetings to bring companies into contact with County procurement officials and pair sub-contractors with prime contractors in similar industries. “I would like to see active participation from the County at regional meet-and-greets focused on minority businesses,” said Hispanic-owned industrial cleaning service AI-15. Woman-owned staffing firm AI-21 and Asian American-owned engineering firm AI-18 concurred. “The County should have mixers so that small businesses can meet primes,” AI-18 said. “Proposal meetings would also be helpful. Additionally, the County should let businesses know when RFPs become available.” AI-21 asked for even more specifics. “The County should have a vendor fair for the primes to get to know the sub-contractors before RFPs come out.” AI-20, an Asian American-owned IT firm simply asked for training. “The County should take time to help train new MBEs and hold meetings so that businesses know who to contact,” he said. “The County should help small businesses with navigating the certification process and assist them with making applications with a reasonable chance of success,” Native American-owned IT firm AI-8 said.

Some who participated in the Study said companies seeking to do business with the County often had trouble deciphering how to bid on contracts or get certified. “It is hard to understand the overall process,” AI-20, a Native-owned IT firm said. “Many of the policies are in a bit of a grey area.” A leader of an organization that serves the County area wondered what pertinent information was not being

communicated because of vague procurement and certification processes. “I would like for our members to have a better understanding of what the procurement process is,” said OI-1. “Because I think that the County gets money. And the question I’ve been working to answer is where’s that money going? Who finds out about that money? I think that that could be a real benefit for some of the small businesses that we have or just to make sure that the process is equitable.”

The County’s Economic Development Office received accolades, however. “I think that awareness and their openness to meet with the everyday citizen, the business center, and actually have discussions as a huge advantage that we have to really truly understanding what we need here locally from our business community perspective,” area business organization OI-2 said. “They make it a point to be present when they can, and to listen. And they make it a priority to come to give valuable information to be asked the tough questions and you know, have answers, and then try to cultivate new opportunities.”

C. Lack of Understanding Of Bidding Process

Some who participated in the Study said companies seeking to do business with the County often had trouble deciphering how to bid on contracts. In some cases, business owners expressed a need for better understanding of how to complete the bidding process.

Of those polled, 17.7% said limited knowledge of County procurement policies and procedures prevented them from doing business with the County (See Table 6 below and Appendix I Survey of Business Owners: Table 46). That includes 20.9% of Black-owned firms, 18.3% of Women-owned firms, and 14.1% of Non-minority firms. AI-8, a Native American-owned IT business asked for more clarity about the procurement process. “The County should help small businesses with navigating the certification process and assist them with making applications with a reasonable chance of success,” he said.

| Responses | Owners' Minority Status | | | | | | Total |
|--------------|-------------------------|--------|--------|--------|----------|---------------------------|--------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| Not Selected | 55 | 58 | 53 | 8 | 12 | 4 | 190 |
| | 85.9 % | 81.7 % | 79.1 % | 88.9 % | 100 % | 50 % | 82.3 % |
| Selected | 9 | 13 | 14 | 1 | 0 | 4 | 41 |
| | 14.1 % | 18.3 % | 20.9 % | 11.1 % | 0 % | 50 % | 17.7 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

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D. Contract Sizing

Many of the small businesses that participated in the Study acknowledged having limited resources with which to compete for County contracts. As a result, these firms indicated that they were not always able to bid on some of the larger and costlier projects let by the County for bid.

Business owners responding to the survey said, at a rate of 11.3%, that contracts being too large presented an obstacle to working with the County (See Table 7 below and Appendix I Survey of Business Owners: Table 50), while 9.1% of those polled said that contracts that were too expensive to bid on prevented them from doing business with the County. (See Table 8 below and Appendix I Survey of Business Owners: Table 51).

Table 7. Contract too large

| Responses | Owners' Minority Status | | | | | | Total |
|--------------|-------------------------|--------|--------|--------|----------|---------------------------|--------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| Not Selected | 55 | 65 | 60 | 8 | 10 | 7 | 205 |
| | 85.9 % | 91.5 % | 89.6 % | 88.9 % | 83.3 % | 87.5 % | 88.7 % |
| Selected | 9 | 6 | 7 | 1 | 2 | 1 | 26 |
| | 14.1 % | 8.5 % | 10.4 % | 11.1 % | 16.7 % | 12.5 % | 11.3 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

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Table 8. Contract too expensive to bid

| Responses | Owners' Minority Status | | | | | | Total |
|--------------|-------------------------|--------|--------|-------|----------|---------------------------|--------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| Not Selected | 59 | 65 | 59 | 9 | 10 | 8 | 210 |
| | 92.2 % | 91.5 % | 88.1 % | 100 % | 83.3 % | 100 % | 90.9 % |
| Selected | 5 | 6 | 8 | 0 | 2 | 0 | 21 |
| | 7.8 % | 8.5 % | 11.9 % | 0 % | 16.7 % | 0 % | 9.1 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

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Both AI-7 and AI-11 said that their companies are unable to scale the amount or of work often let out to bid by the County. “In addition to not seeing many RFPs in this area of expertise, some of the jobs are too big for the company to bid on,” said Hispanic-owned commercial cleaning business AI-11. “I’ve never had a chance to work for Maryland municipalities because the jobs are too big for my small company,” said AI-7, a Hispanic-owned landscaping company. AI-12, a Hispanic-owned construction company, said the

County should unbundle some larger contracts to make the different parts of the contracts more accessible to small businesses. “The County should put more work out there that small businesses can bid for and sell it in a way that they can get access,” he said.

E. Excessive Paperwork/Insufficient Time To Bid

The Survey of Business Owners for the Study revealed some of these issues, starting with 17.3% of respondents acknowledging that excessive paperwork was among the barriers that prevented companies from doing business with the County (See Table 9 below and Appendix I Survey of Business Owners: Table 39).

Table 9. In your experience, have any of the following been a barrier to your firm obtaining work on projects for Harford County? Excessive paperwork

| Responses | Owners' Minority Status | | | | | | Total |
|--------------|-------------------------|--------|--------|--------|----------|---------------------------|--------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| Not Selected | 55 | 62 | 51 | 6 | 10 | 7 | 191 |
| | 85.9 % | 87.3 % | 76.1 % | 66.7 % | 83.3 % | 87.5 % | 82.7 % |
| Selected | 9 | 9 | 16 | 3 | 2 | 1 | 40 |
| | 14.1 % | 12.7 % | 23.9 % | 33.3 % | 16.7 % | 12.5 % | 17.3 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

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Just over 10% of survey respondents(10.8%) said they had limited time to prepare bid packages or quotes (See Table 10 below and Appendix I Survey of Business Owners: Table 45).

Table 10. In your experience, have any of the following been a barrier to your firm obtaining work on projects for Harford County? Limited time given to prepare bid package or quote

| Responses | Owners' Minority Status | | | | | | Total |
|--------------|-------------------------|--------|--------|--------|----------|---------------------------|--------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| Not Selected | 61 | 64 | 58 | 7 | 9 | 7 | 206 |
| | 95.3 % | 90.1 % | 86.6 % | 77.8 % | 75 % | 87.5 % | 89.2 % |
| Selected | 3 | 7 | 9 | 2 | 3 | 1 | 25 |
| | 4.7 % | 9.9 % | 13.4 % | 22.2 % | 25 % | 12.5 % | 10.8 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

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Black-owned plumbing business AI-1 told the Study team that he was intimidated by the RFP process. “I would like to see the RFP process more simplified,” he said. “I find the paperwork intimidating. A coaching system could help make RFPs more accessible.” FG-10, a Black-owned financial services firm, and FG-3 offered similar observations about attempting to work with the County. “Paperwork is tiresome and especially if you have to do multiple submissions, and then you have to do it every year for these multiple levels,” FG-10 said. “It's just too much and as part of the reason as if forget about it. And then also, like you said, the procurement process. You know, I see an RFP, and the date to submit it might even be two weeks, but I'm so busy. I don't have the time. I can't make it.” FG-3 said, “There’s a timeframe and all the paperwork. We do go through a lot of processes to get certified and to stay certified.”

F. Accountability to Utilize M/WBES

The County does not have a percentage-based utilization goals program or any other program for Minority-owned or Women-owned Business Enterprises. The County does, however, participate in a regional cooperative purchasing body associated with Baltimore City and mirrors other government contracts in Maryland. Business owners participating in the Study expressed displeasure with the absence of goals or set-aside programs, as well as a lack of oversight on the part of the County to encourage prime contractors to utilize M/WBES. Without any oversight, primes can work without utilizing Minority and

Woman-owned firms. More than a third of survey respondents(35.5%) agreed to some degree that sometimes a prime contractor will contact a minority and/or Woman-owned firm to ask for quotes without ever giving the proposal sufficient review to consider awarding the subcontracting firm (See Table 11 below and Appendix I Survey of Business Owners: Table 114). That includes 18.6% who agreed and 16.9% who strongly agreed with the statement.

Table 11. Please tell us if you strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree with each of the following statements: [Sometimes, a prime contractor will contact a Minority and/or Woman owned firms to ask for quotes but never give the proposal sufficient review to consider giving that firm the award.]

| Responses | Owners' Minority Status | | | | | | Total |
|----------------------------|-------------------------|--------|--------|--------|----------|---------------------------|--------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| Strongly agree | 2 | 6 | 25 | 2 | 2 | 2 | 39 |
| | 3.1 % | 8.5 % | 37.3 % | 22.2 % | 16.7 % | 25 % | 16.9 % |
| Agree | 8 | 13 | 16 | 2 | 3 | 1 | 43 |
| | 12.5 % | 18.3 % | 23.9 % | 22.2 % | 25 % | 12.5 % | 18.6 % |
| Neither agree nor disagree | 45 | 48 | 20 | 5 | 7 | 5 | 130 |
| | 70.3 % | 67.6 % | 29.9 % | 55.6 % | 58.3 % | 62.5 % | 56.3 % |
| Disagree | 3 | 3 | 3 | 0 | 0 | 0 | 9 |
| | 4.7 % | 4.2 % | 4.5 % | 0 % | 0 % | 0 % | 3.9 % |
| Strongly disagree | 6 | 1 | 3 | 0 | 0 | 0 | 10 |
| | 9.4 % | 1.4 % | 4.5 % | 0 % | 0 % | 0 % | 4.3 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

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Business owners contacted for the Study emphasized that some prime contractors would either take advantage of them or not utilize them at all to conduct public business. “Prime contractors will only use me for part of the job, and then give the other parts to their own firm,” Black-owned construction and disposal business AI-4. AI-2, a Black- owned utilities company, said she had been hired before by a prime and learned that she was intended to be a front. “Typically, what they do is hire a generic business firm or front. They mark up what the firm will do and that prime does the real work,” AI-2 said. “Once I had gotten a prime that came to me because we were minority. He hired me and then came back to let us go when he told me that he learned from his peers that there was a way around actually hiring me.” AI-3, a Black-owned construction company, said he was hired before and received only partial payment. “They will bring (an MBE) on the job and then give them a partial payment,” he said. “Then, in order to receive the payment, MBEs have to take legal action, which requires money and time. Often, there is no penalty to the prime contractors for this. Primes will force you to sue them to get your money. Oftentimes, minority businesses do not have enough money to take legal action.”

Business owners who participated in the public hearings and focus groups emphasized goal setting for smaller firms would attract firms to do business with the County. Minority-owned, Woman-owned, and Disadvantaged businesses are looking to the County to institute goals. “The County should look at specifications and place a mandate or percentage on every part of the RFP to make the primes hire real, qualified subs,” Black-owned disposal business AI-4 said. AI-19, an Asian-owned construction supply company, has been directly asked by primes to “fill out a minority form in his name and say he cannot do the job.” He said, “The County should continue to be intentional about helping MBEs get more work. It should make sure that there are percent set-asides on every RFP that is enforced.” Asian-owned consulting firm AI-25 said the County could ensure that primes adhered to MWSBE goals if they “put the MBE percentage in contracts so that it is in writing.” Business owners believe that if there are no goals set on projects that they will not be used for work, weakening their desire to engage and participate with the County.

G. Unfair Competition With Larger Firms

Respondents stated that large firms represent a barrier to doing business with the County. Nearly a quarter of respondents to the Survey of Business Owners(24.2%) said that unfair competition with larger firms kept them from winning bids with the County (See Table 13 below and Appendix I Survey of Business Owners: Table 55). That included 34.3% of Black-owned firms, 16.9% of Woman-owned firms, and 15.6% of Non-Minority-owned firms.

Table 13. In your experience, have any of the following been a barrier to your firm obtaining work on projects for Harford County? Unfair competition with large firms

| Responses | Owners' Minority Status | | | | | | Total |
|--------------|-------------------------|--------|--------|--------|----------|---------------------------|--------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| Not Selected | 54 | 59 | 44 | 7 | 6 | 5 | 175 |
| | 84.4 % | 83.1 % | 65.7 % | 77.8 % | 50 % | 62.5 % | 75.8 % |
| Selected | 10 | 12 | 23 | 2 | 6 | 3 | 56 |
| | 15.6 % | 16.9 % | 34.3 % | 22.2 % | 50 % | 37.5 % | 24.2 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

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AI-7, a Hispanic-owned landscaping company, said he was too small to work in the County marketplace. “The County only gives jobs to people they know,” he said. “The big companies get the jobs.” Woman-owned healthcare company FG-1 said the informal network was frustrating. “It’s almost like the old guard,” she said. “They’ve always done it with these companies, so they’re going to stick with these companies.” Non-minority-owned environmental firm PH-1 said he lost a contract to a larger firm. “We didn’t win,” he said. “But I also know that the shortlisted firms were all large firms.”

H. Informal Networks

Relationship building is a part of doing business, although informal networks go a step beyond. At best, informal networks tend to favor the same firms with which an agency is familiar because of perhaps a previous working arrangement. At worst, informal networks serve as back channels providing information and preference to the same firms. In either case, they exclude the entrance of new firms into doing business with a public agency. While private sector firms can legitimately and exclusively use the same firms over and over, that practice is not permissible with publicly funded work because it feeds a continuing practice of exclusion of underutilized tax paying populations.

Nearly half of those polled (48.9%) reported their belief that an informal network of prime and subcontractors doing business with the County monopolizes the public contracting process (See Table 14 below and Appendix I Survey of Business Owners: Table 111). Among those polled include 67.2% of Black-owned firms, 47.9% of Woman-owned firms, and 29.7% of Non-minority-owned firms.

Table 14. Do you believe there is an informal network of prime and subcontractors doing business with Harford County Government that monopolizes the public contracting process? Informal network is defined as firms that have an advantage due to their relationships inside Harford County.

| Responses | Owners' Minority Status | | | | | | Total |
|--------------|-------------------------|--------|--------|--------|----------|---------------------------|--------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| Yes | 19 | 34 | 45 | 5 | 6 | 4 | 113 |
| | 29.7 % | 47.9 % | 67.2 % | 55.6 % | 50 % | 50 % | 48.9 % |
| No | 45 | 37 | 22 | 4 | 6 | 4 | 118 |
| | 70.3 % | 52.1 % | 32.8 % | 44.4 % | 50 % | 50 % | 51.1 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

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Woman-owned engineering firm AI-2 said she believed the County has favorite vendors. “It is a boys’ club,” she said. “More engineers win because they already work with the supplier. They come in on the RFP as a package deal. I do not have the relationships. It is harder and harder to compete with a system that is already locked.” AI-20, a Native American-owned IT firm, said he believes requests for proposals are targeted to firms already identified by the hiring agency or prime. “There are times when it seems that documents are drawn specifically to identify a particular product that only a select group of companies have access to,” he said.

Hispanic American-owned landscaping company AI-7 said he does not “bother applying to work with the County” because he expects the contracts to go to preferred companies. “The County only gives jobs to the people they know,” he said. African American-owned architecture firm FG-2, however, said he understood why the same firms continue to get work to the exclusion of others. “Government is going to go to people they trust, and they’ve worked with before who have a proven track record,” he said, noting that the County should have more oversight to provide opportunities to a more diverse pool of potential vendors. “But at the same time, that prevents us from getting into the door. I think that we could push those

gatekeepers, for lack of a better word, to expand their search so that the government chooses the prime and a sub within whatever situation it might be in and not put it on the prime to choose who they want.”

I. Other Notable Findings

Beyond the major topics discussed in this chapter were other findings that, while not readily reflected in the interviews, focus groups or public hearings, did elicit notable response from the Survey of Business Owners.

1. Bid Specifications

Nearly 14% of business owners polled (13.9%) cited bid specifications as a barrier to doing business with the County (See Table 15 below and Appendix I Survey of Business Owners: Table: 43).

Table 15. In your experience, have any of the following been a barrier to your firm obtaining work on projects for Harford County? Bid specifications

| Responses | Owners' Minority Status | | | | | | Total |
|---------------------|-------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| Not Selected | 57 | 67 | 53 | 7 | 9 | 6 | 199 |
| | 89.1 % | 94.4 % | 79.1 % | 77.8 % | 75 % | 75 % | 86.1 % |
| Selected | 7 | 4 | 14 | 2 | 3 | 2 | 32 |
| | 10.9 % | 5.6 % | 20.9 % | 22.2 % | 25 % | 25 % | 13.9 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

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2. Double Standards for MWDBEs:

More than 40% of Study participants agreed to some extent that double standards in qualifications and work performance make it for difficult for minority-owned, Women-owned, Disadvantaged, or Small businesses to win bids or contracts (See Table 16 Below and Appendix I Survey of Business Owners: Table 113). Strongly agreeing were 22.1% of those polled, while 18.6% merely agreed.

Table 16. Please tell us if you strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree with each of the following statements: [Double standards in qualifications and work performance make it more difficult for Minority, Woman, Disadvantaged or Small business to win bids or contracts.]

| Responses | Owners' Minority Status | | | | | | Total |
|----------------------------|-------------------------|--------|--------|--------|----------|---------------------------|--------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| Strongly agree | 3 | 9 | 31 | 2 | 3 | 3 | 51 |
| | 4.7 % | 12.7 % | 46.3 % | 22.2 % | 25 % | 37.5 % | 22.1 % |
| Agree | 10 | 15 | 13 | 2 | 2 | 1 | 43 |
| | 15.6 % | 21.1 % | 19.4 % | 22.2 % | 16.7 % | 12.5 % | 18.6 % |
| Neither agree nor disagree | 36 | 37 | 16 | 4 | 6 | 2 | 101 |
| | 56.2 % | 52.1 % | 23.9 % | 44.4 % | 50 % | 25 % | 43.7 % |
| Disagree | 5 | 7 | 3 | 0 | 0 | 1 | 16 |
| | 7.8 % | 9.9 % | 4.5 % | 0 % | 0 % | 12.5 % | 6.9 % |
| Strongly disagree | 10 | 3 | 4 | 1 | 1 | 1 | 20 |
| | 15.6 % | 4.2 % | 6 % | 11.1 % | 8.3 % | 12.5 % | 8.7 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

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J. Conclusions

The anecdotal evidence highlights a need to improve access, outreach, and support in the bidding process, providing potential vendors with more information to help them correctly and successfully bid on public contracts. The County bidding process needs to be amended to offer ample time to respond to RFPs and streamlined to minimize the amount of documentation required. County procurement officials should provide aspirational goals for hiring and bring on staff to provide oversight to enforce those goals, encouraging prime contractors to make good faith efforts to identify and hire woman and minority-owned firms.

With no M/WBE goals, primes have no incentive to diversify their subcontractors. The Study showed evidence of an entrenched informal network of businesses that monopolized contracting and excluded those firms outside the network. Anecdotal evidence also showed that the County and its primes often

preferred larger firms or conducted the bidding process in a manner that favored larger companies with more resources and staffing than smaller businesses.

Appendix A

Expanded Legal Analysis

APPENDIX A – EXPANDED LEGAL ANALYSIS

Having provided an overview of the significance and initial development of disparity studies in the earlier Legal Analysis chapter of the Study, 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 a program is initiated, and each is addressed in turn. Following this discussion, GSPC provides in this analysis an overview of some of the key aspects of its Study methodology for gathering and analyzing statistical and anecdotal evidence (which provides the “factual predicate” for any remedial program/policy), and discussion of the underlying legal basis for them.

A. Equal Protection and Levels of Judicial Scrutiny

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

When a program or ordinance provides race-based policies or remedies, equal protection considerations are triggered and the court will apply what is referred to as “strict scrutiny” in evaluating its constitutional legitimacy. When gender-based, the program (or policy) will be reviewed under the less-stringent “intermediate scrutiny” standard.

1. Racial Classifications

“We have held that all racial classifications imposed by government must be analyzed by a reviewing court under strict scrutiny.” Grutter v. Bollinger, 539 U.S. 306, 326 (2003).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

¹ See also Adarand II, 515 U.S. at 212 (same).

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.

2. Gender Classifications

Though still unsettled in some federal Circuits, it appears in the Fourth Circuit that programs with gender-based classifications are evaluated for constitutionality under a more relaxed level of scrutiny than race-based 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 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, any gender-based policy or component implemented by Harford County would be analyzed under level of scrutiny which would be easier for the County to meet under challenge than that which would be applied to the race-based component.

B. 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

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.”).

Subsequent lower court rulings have provided more guidance on passive participation by local governments. In Concrete Works of Colorado, Inc. v. City of Denver, 36 F.3d 1513 (10th Cir. 1994), the Tenth Circuit held that it was sufficient for the local government to demonstrate that it engaged in passive participation in discrimination rather than showing that it actively participated in the discrimination:

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

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

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

C. 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 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

⁵ Croson, 488 U.S. at 498-506.

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.

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 M/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

1. “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.2d 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 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

⁸ See Concrete Works, 36 F.3d 1513 (10th Cir. 1994).

⁹ Id.

¹⁰ Citing Adarand III, 228 F.3d at 1166.

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

2. 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 or female business owners, 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

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 III, 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 (9th 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.”).

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]

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 . . . 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 other words, a disparity study is intended to evaluate whether there is a statistically-significant disconnect – *i.e.*, disparity – between the availability of and utilization of women- or minority-owned firms in public contracting.

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 a 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 non-M/WBEs, which itself was based on census data.

¹⁴ Associated General Contractors of America, San Diego Chapter v. California D.O.T., 713 F.3d 1187, 1196-97 (9th 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 Kossmann 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.

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 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. § 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

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).

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).

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 (7th 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 women-owned. 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

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:

²¹ See Associated General Contractors v. California D.O.T., 713 F.2d at 1199 (citing Northern Contracting); Kossman, at 58 (“Separately considering prime contractors and subcontractors is not only unnecessary but may be misleading. The anecdotal evidence indicates that construction firms had served, on different contracts, as both.”). See also H.B. Rowe, 615 F.3d at 245 (court accepted combined data based on experts’ explanation that prime contractors are also qualified to do subcontracting work, and often do).

²² 473 F.3d at 718.

²³ Id. at 5. See also Midwest Fence Corp. v. U.S. D.O.T., 840 F.3d 932, 950 (7th Cir. 2016)(discussing and approving custom census method).

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.Ct. 706.

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

The 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

Once the statistical data has been collected and preliminarily assed, further analysis must be done to evaluate whether any disparity identified is statistically significant. Reviewing courts have approved the use of disparity indices and standard deviations for this purpose, and GSPC will be utilizing them in the present Disparity Study.

One way to demonstrate the under-utilization of M/WBEs (or DBEs) in a particular area is to 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 that case, 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

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 0.22, the Ninth Circuit upheld the denial of a preliminary injunction to a

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.

²⁸ See Associated General Contractors v. California D.O.T., 713 F.2d at 1191, citing H.B. Rowe; Concrete Works, 36 F.3d at 1523 n. 10 (10th Cir.1994) (employing disparity index); Contractors Ass'n, 6 F.3d at 1005 (3d Cir.1993) (employing disparity index).

²⁹ Id. at 245.

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."³¹

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.3d 1545, 1556 (11th Cir. 1994) (quoting Castaneda v. Partida, 430 U.S. 482, 497 n.17, 97 S.Ct. 1272, 1281 n.17, (1977)).

f. Regression Analyses

In conducting its statistical analysis of Harford County procurement, GSPC will also be employing a regression analysis, which essentially seeks to control for numerous factors *other than discrimination*, e.g., firm size, experience level, which may be causing or contributing to any disparity identified. This aspect of the GSPC methodology likewise has the support of several courts as a current "best practice" for disparity studies.

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.

For example, after the Fourth Circuit in H.B. Rowe noted the statistical significance of certain quantitative analyses showing two standard deviations or a disparity ratio higher than .80, it addressed the value of a regression analysis as a further evaluative tool. Specifically, in discussing the disparity evidence offered by the State, the court favorably noted:

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

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

In Kossman v. City of Houston, the key feature of the supporting study was an analysis addressing business formation, earnings, and capital markets.³³ 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 (emphasis added)]

³³ Id. at pp. 2-10.

3. Requirement for a Narrowly-Tailored Remedy

Under the Croson framework, any race-conscious plan or remedy must also be narrowly tailored to ameliorate the effects of past discrimination on (and only on) the protected groups identified as significantly underutilized in the study. See Michigan Road Builders Ass'n v. Milliken, 834 F.2d 583, 589-90 (6th Cir. 1987).³⁴

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)]³⁵

Similar guideposts are provided in several post-Croson cases addressing or evaluating efforts to meet the “narrowly tailored” prong – which we simply list for ease of reference:

- Relief is limited to minority groups for which there is identified discrimination;
- Remedies are limited to redressing the discrimination within the boundaries of the enacting jurisdiction;
- The goals of the programs should be flexible and provide waiver provisions;
- Race and/or gender neutral measures should be considered to the extent reasonably possible; and
- The program should include provisions or mechanisms for periodic review and sunset.³⁶

Inherent in the above discussion is the notion that M/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”

³⁴ See also Sherbrooke Turf, 345 F.3d at 972 (citing Croson, 488 U.S. at 496).

³⁵ 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.

³⁶ Sherbrooke Turf, 345 F.3d at 971 (“In determining whether a race-conscious remedy is narrowly tailored, we look to factors such as the efficacy of alternative remedies, the flexibility and duration of the race-conscious remedy, the relationship of the numerical goals to the relevant labor market, and the impact of the remedy on third parties.”).

provision.³⁷ 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).³⁸

³⁷ Podberesky, 38 F.3d at 160 (“The program thus could remain in force indefinitely based on arbitrary statistics unrelated to constitutionally permissible purposes.”).

³⁸ 615 F.3d at 239.

Appendix B

Data Assessment Report

APPENDIX B – DATA ASSESSMENT REPORT

HARFORD COUNTY, MARYLAND DISPARITY STUDY DATA ASSESSMENT REPORT

Griffin & Strong, P.C. (“GSPC”) conducted a virtual data assessment meeting on December 20, 2021 regarding the Harford County, Maryland (“County”) Disparity Study (“Study”). This report summarizes this meeting and sets forth action items and preliminary questions to be answered. It is necessary to issue a data assessment report prior to completing the data collection plan in order to confirm that GSPC has the correct understanding of how and where data is kept by the County. All data and data requests will be submitted to the County through Karen Myers, Director of Procurement.

In attendance at the December 20, 2021 meeting from Harford County were:

| Name | Title |
|-------------------------------------|---|
| Karen Myers | Director of Procurement, Harford County Department of Procurement |
| Margaret Hartka | Senior Assistant County Attorney, Department of Procurement, Public Works, and Treasury, Law Department |
| Joe Siemek | Director of Public Works, Department of Public Works |
| Samantha Dickel | Secretary to the Director, Department of Public works |
| Kim Spence | Chief of Budget and Management Research, Budget and Efficiency Department |
| Robert Sandlass | Director of Treasury, Treasury Department |
| Christine Carpenter | Procurement Agent III, Harford County Department of Procurement |
| Not in attendance: Nicholas Kuba | Director of Information and Communications Technology |

I. Scope Statement

The purpose of this project is to conduct a comprehensive disparity study for Harford County Government to determine whether there is a disparity in the County’s utilization of minority and women owned firms.

The Study will collect and analyze relevant data on the County’s utilization and availability of firms in the Industry Categories of:

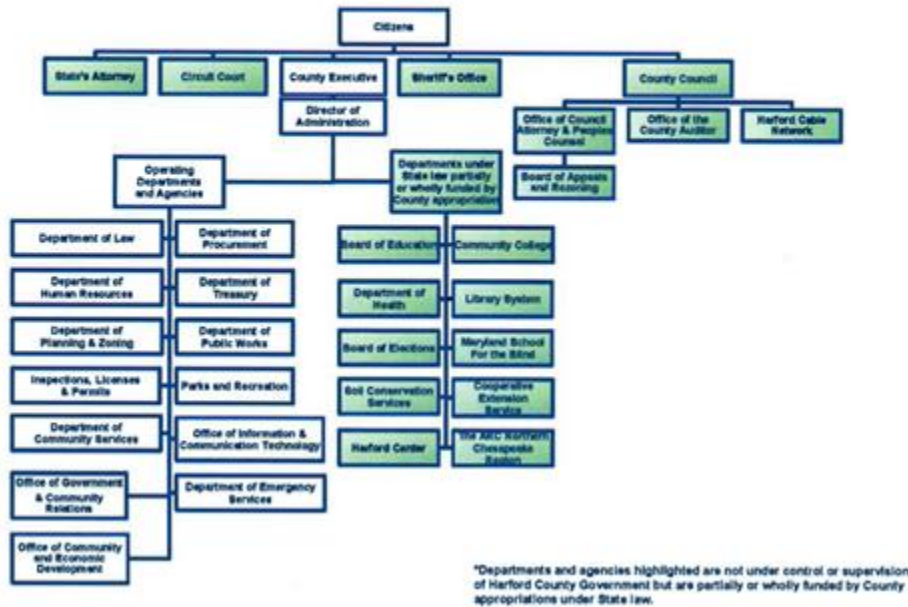
1. Construction
2. Architecture & Engineering (A&E)
3. Professional Services
4. Other Services
5. Goods

The study period for the disparity study was determined as a five-year study period (July 1, 2016 – June 30, 2021) FY2017-FY2021.

The dollars spent will be collected and analyzed from the County's 13 departments:

1. Law
2. Procurement
3. Human Resources
4. Treasury
5. Planning and Zoning
6. Public Works
7. Inspections, Licenses, and Permits
8. Parks and Recreation
9. Community Services
10. Information and Communication Technology
11. Government and Community Relations
12. Emergency Services
13. Community and Economic Development (includes Harford Transit)

HARFORD COUNTY GOVERNMENT ORGANIZATION CHART



Harford Organizational Chart provided by Karen Myers via email.

II. Preliminary Purchasing Practices

- A. Harford County Code serves as the foundation to their policies. Chapter 41 particularly deals with procurement. There is no purchasing manual and grievance procedures are not in the Code.
- B. The study period will be July 1, 2016 through June 30, 2021 (FY2017- FY2021).
- C. The County switched ERP systems in 2019 to WorkDay; data before and after the switch will occur in different formats. The County noted that data from their new system is more detailed and accessible than from their previous system.
- D. Contract Thresholds
1. Small Purchases: Up to \$4,999
 - a. Done within individual departments and are *usually* put on p-cards (some are paid directly off of invoices).
 2. Informal Threshold: Purchases \$5,000-24,999
 - a. User department is required to get 3 quotes before making the purchase.
 3. Formal Threshold: \$25,000 or more
 - a. Procurement has a list of all formal solicitations.
 - b. These solicitations are posted online on eMMA and the County website

III. Data Assessment

- A. General Data
1. The County does not have any uniform use of commodity codes. However, they do post solicitations on the eMaryland Marketplace Advantage (eMMA), and that system UNSP codes. Awards are not listed in eMMA and those codes are not on the award data. The notice for solicitation redirects them to their website.
 2. There is a prequalification list and certification process; it is specific only for particular sectors or trades and only for bids on construction- capital projects estimated to exceed 100k. It can take up to 60 days to be pre-qualified, but the County tries to expedite prequalification if they have an active bid on the street.
 3. The county does not keep track of race, ethnicity, or DBE status for vendors or have their own certified DBE list, but they do use MDOT's certification list.
- B. Specific Data files

It was determined in this meeting that GSPC will need from the County:

- Solicitations (Study Period)
- Supplier/Prequalified List (Study Period)
- Requisitions/Purchase Orders used for Informals (Study Period)
- Bids (Study Period)
- Payments- including contract numbers and POs (Study Period)
- Contracts (Study Period)
- P-cards (Excluded from the Study)Invoices (Study Period)

- Small Purchase/Invoices (Study Period)
- Subcontractors (Study Period)
- Building Permit data (Study Period)
- Certified Firms (Current)

1. Solicitations

- Procurement has a list of all formal solicitations.
- There is no registration system for the County. The County uses eMMA for formal solicitations and encourage vendors to register on eMMA. They also post bids on the website.
- If an informal purchase occurred because of piggyback (either from another contract or from a collective yearly p-card purchase of \$25,000 or more with one vendor), there is no solicitation.
- Informal solicitations are uploaded into WorkDay prior to requisitions. Prior to WorkDay (about 2 years ago) they were manually entered into a green screen. If user departments kept them in their systems, they may still have them.

2. Supplier/Prequalified Lists

- The County has a Supplier list within WorkDay, their EPR system which is maintained by Procurement. All solicitation notifications still go through the Maryland Marketplace which uses UNSPSC but other than that the County does not use commodity codes. May be able to go into eMMA to see what was posed for the solicitation and posted on the County website.
- There is no external facing vendor system.
- The County maintains a prequalification list for Construction projects exceeding \$100,000 which details certain Construction trade prequalification as well. Prequalification is good for 2 years and includes bonding capacity.
- The County will inquire to eMMA to see if they can get a vendor list.

3. Requisition/Purchase Orders (POs) – Used for Informals

- Requisition is a request for a Purchase Orders. (Available in Laserfiche since 2017, available in other formats before then)
- If a purchase was a piggyback, it might be only a purchase order.
- Formal purchases are kept as contracts, but there are also Purchase Orders for formals entered into the contracts (on WorkDay) if they are not for the full amount (i.e. partial payment).
- Purchase Order have contract numbers on them, if there is a contract.
- Contracts should have a funding field to show if they were federally funded, but very few of those, primarily through the MTA.

4. Bids

- For formals, bid tabs from solicitations are kept in a file until a certain age, then they are on Laserfiche.
- Formal bids are submitted in hard copy but then scanned as a PDF. The County said they should also have the bid tabs in Excel.
- Informals require 3 quotes which are uploaded to WorkDay for the last 2 years. Anything before that may or may not have been kept by the user department.

5. Payment Data

- Payment data descriptions contain general ledger codes which include object codes.
- Generally does not include any race or gender data.
- The County has the ability to run a report to include contract numbers and PO numbers.
- Payments prior to 2019 will be on Laserfiche with not as much detail.

6. Contracts

- Contracts are entered into WorkDay and POs are entered in against contracts.
- Firms have Vendor ID numbers .
- Contract award numbers match the bid number.

7. P-Cards (excluded from the Study)

- P-card statements provide the vendor but not what was purchased. However, each county department does maintain a written log with physical receipts to it, and those receipts may have a level of detail, but there is not electronic summary form.
- There is no collective cap to the number of purchases (up to \$4,999 individually) that can be made to a single vendor within a given month or year. However, at the end of the year, if they find that the collective spend on p-cards for one vendor is \$25,000 or more, they try to create a contract for that vendor- in most cases under a piggyback.
- Receipts are not supposed to be in the ERP system, but some may be in there.

8. Small Purchase/Invoice

- Small purchases (\$4,999 and under) are made via p-card or direct invoice payment. There is no limit on the number of individual small purchases a vendor can receive. An evaluation is done at the end of each year and piggybacks/contracts are put in place for vendors who were collectively paid 25,000 or more over the course of the year.

9. Subcontractors

- The County estimated that 90% of their bids do not require subcontractors to be listed at the time of soliciting.

- Robbie Sandlass will have building permit data.

10. Building Permits

- There is a separate system for building permits for three municipalities.
- will check to see if there is a list of subcontractors in Construction at the time of bid or award.

11. Certified Firms

- The County does not have any MSWBE, MWBE, or DBE tracking in current payment or vendor data. However, according to the Harford Transit DBE Program Policy Statement (signed May of 2021), there should be monthly reports on MBE participation in public transit related projects and payments. Harford Transit is housed in the Community and Economic Development department. The County is a subrecipient of federal funds.

- GSPC will pull certified lists from:
 - Maryland DOT
 - Baltimore City
 - Washington, D.C.
 - Wilmington, DE

- The County borders on these counties where GSPC might find lists:

- Baltimore County, MD
- Cecil County, MD
- York County, PA
- Lancaster County, PA
- Chester County, PA

- The County is a subrecipient of federal funds and not a direct recipient. This is primarily for public transit services; Harford Transit is housed in the Community and Economic Development department.

- The county does not have its own DBE certification list, but does use MDOT's.

- According to the Harford Transit DBE Program Policy Statement (signed May of 2021), there should be monthly reports on MBE participation in public transit related projects and payments.

Appendix C

Disparity Ratios

APPENDIX C – DISPARITY RATIOS

The tables in Appendix C (Tables C-1 through C-5) presents prime disparity ratios on Harford County projects by year over the Study Period, prime disparity ratios for projects less than \$500,000 (Tables C-6 through C-10), and prime disparity ratios for projects less than \$1,000,000 (Tables C-11 through C-15). Detailed subcontractor disparity ratios are not presented because of the negligible MWBE subcontractor utilization.

There was underutilization in prime contracts for all M/WBEs groups, except Asian American firms and Nonminority Woman firms in Goods. There was underutilization in Subcontractor Utilization for all M/WBEs groups, for all procurement categories (except Goods). Non-M/WBEs were overutilized in Prime Utilization and Subcontractor Utilization.

Disparity was also examined eliminating larger prime projects. There was disparity for all M/WBE groups for prime payments less than \$500,000 and less than \$1 million for all procurement categories, except that Asian Americans were also overutilized in Construction for projects less than \$500,000 and less than \$1,000,000.

**Table C-1
Disparity Results, Relevant Market Area
Distribution of Dollars by Business Ownership and Fiscal Year, Construction (FY 2017-2021)**

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | Less than 80% | Statistical Significance |
|-------------|--------------------|--------------------|----------------------------|-----------------|---------------------------------|---------------|--------------------------|
| 2017 | Black American | 0.06% | 15.48% | 0.36 | Underutilization | * | |
| | Asian American | 0.14% | 1.79% | 7.77 | Underutilization | * | |
| | Hispanic American | 0.55% | 5.36% | 10.32 | Underutilization | * | |
| | Native American | 0.00% | 1.07% | 0.05 | Underutilization | * | |
| | TOTAL MBE | 0.75% | 23.69% | 3.16 | Underutilization | * | |
| | Nonminority Female | 3.27% | 5.48% | 59.80 | Underutilization | * | |
| | TOTAL M/WBE | 4.02% | 29.17% | 13.79 | Underutilization | * | |
| | Non-M/WBE | 95.98% | 70.83% | 135.50 | Overutilization | | |
| 2018 | Black American | 0.03% | 15.48% | 0.22 | Underutilization | * | |
| | Asian American | 0.06% | 1.79% | 3.46 | Underutilization | * | |
| | Hispanic American | 0.87% | 5.36% | 16.33 | Underutilization | * | |
| | Native American | 0.01% | 1.07% | 0.82 | Underutilization | * | |
| | TOTAL MBE | 0.98% | 23.69% | 4.13 | Underutilization | * | |
| | Nonminority Female | 3.52% | 5.48% | 64.32 | Underutilization | * | |
| | TOTAL M/WBE | 4.50% | 29.17% | 15.43 | Underutilization | * | |
| | Non-M/WBE | 95.50% | 70.83% | 134.82 | Overutilization | | |
| 2019 | Black American | 0.13% | 15.48% | 0.82 | Underutilization | * | |
| | Asian American | 0.32% | 1.79% | 18.01 | Underutilization | * | |
| | Hispanic American | 0.55% | 5.36% | 10.28 | Underutilization | * | |
| | Native American | 0.01% | 1.07% | 1.08 | Underutilization | * | |
| | TOTAL MBE | 1.01% | 23.69% | 4.26 | Underutilization | * | |
| | Nonminority Female | 3.82% | 5.48% | 69.84 | Underutilization | * | |
| | TOTAL M/WBE | 4.83% | 29.17% | 16.58 | Underutilization | * | |
| | Non-M/WBE | 95.17% | 70.83% | 134.35 | Overutilization | | |
| 2020 | Black American | 0.06% | 15.48% | 0.36 | Underutilization | * | |
| | Asian American | 0.79% | 1.79% | 44.01 | Underutilization | * | |
| | Hispanic American | 0.54% | 5.36% | 10.01 | Underutilization | * | |
| | Native American | 0.00% | 1.07% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 1.38% | 23.69% | 5.81 | Underutilization | * | |
| | Nonminority Female | 5.63% | 5.48% | 102.79 | Overutilization | | |
| | TOTAL M/WBE | 7.01% | 29.17% | 24.02 | Underutilization | * | |
| | Non-M/WBE | 92.99% | 70.83% | 131.29 | Overutilization | | |
| 2021 | Black American | 0.11% | 15.48% | 0.70 | Underutilization | * | |
| | Asian American | 0.00% | 1.79% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.80% | 5.36% | 14.91 | Underutilization | * | |
| | Native American | 0.00% | 1.07% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.91% | 23.69% | 3.83 | Underutilization | * | |
| | Nonminority Female | 1.99% | 5.48% | 36.29 | Underutilization | * | |
| | TOTAL M/WBE | 2.89% | 29.17% | 9.92 | Underutilization | * | |
| | Non-M/WBE | 97.11% | 70.83% | 137.09 | Overutilization | | |
| Total | Black American | 0.08% | 15.48% | 0.50 | Underutilization | * | p <.05 |
| | Asian American | 0.27% | 1.79% | 14.93 | Underutilization | * | p <.05 |
| | Hispanic American | 0.66% | 5.36% | 12.29 | Underutilization | * | p <.05 |
| | Native American | 0.00% | 1.07% | 0.33 | Underutilization | * | p <.05 |
| | TOTAL MBE | 1.01% | 23.69% | 4.25 | Underutilization | * | p <.05 |
| | Nonminority Female | 3.61% | 5.48% | 65.99 | Underutilization | * | p <.05 |
| | TOTAL M/WBE | 4.62% | 29.17% | 15.84 | Underutilization | * | p <.05 |
| | Non-M/WBE | 95.38% | 70.83% | 134.65 | Overutilization | | |

**Table C-2,
Disparity Results, Relevant Market Area,
Distribution of Dollars by Business Ownership and Fiscal Year; A & E (FY 2017-2021)**

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | Less than 80% | Statistical Significance |
|-------------|--------------------|--------------------|----------------------------|-----------------|---------------------------------|---------------|--------------------------|
| 2017 | Black American | 0.00% | 9.53% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 5.12% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.86% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.93% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.44% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.22% | 6.28% | 3.47 | Underutilization | * | |
| | TOTAL M/WBE | 0.22% | 23.72% | 0.92 | Underutilization | * | |
| | Non-M/WBE | 99.78% | 76.28% | 130.81 | Overutilization | | |
| 2018 | Black American | 0.00% | 9.53% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 5.12% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.86% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.93% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.44% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.54% | 6.28% | 8.61 | Underutilization | * | |
| | TOTAL M/WBE | 0.54% | 23.72% | 2.28 | Underutilization | * | |
| | Non-M/WBE | 99.46% | 76.28% | 130.39 | Overutilization | | |
| 2019 | Black American | 0.00% | 9.53% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 5.12% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.86% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.93% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.44% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.56% | 6.28% | 8.94 | Underutilization | * | |
| | TOTAL M/WBE | 0.56% | 23.72% | 2.37 | Underutilization | * | |
| | Non-M/WBE | 99.44% | 76.28% | 130.36 | Overutilization | | |
| 2020 | Black American | 0.00% | 9.53% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 5.12% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.86% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.93% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.44% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.83% | 6.28% | 13.16 | Underutilization | * | |
| | TOTAL M/WBE | 0.83% | 23.72% | 3.48 | Underutilization | * | |
| | Non-M/WBE | 99.17% | 76.28% | 130.01 | Overutilization | | |
| 2021 | Black American | 0.00% | 9.53% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 5.12% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.86% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.93% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.44% | 0.00 | Underutilization | * | |
| | Nonminority Female | 6.23% | 6.28% | 99.22 | Underutilization | * | |
| | TOTAL M/WBE | 6.23% | 23.72% | 26.27 | Underutilization | * | |
| | Non-M/WBE | 93.77% | 76.28% | 122.93 | Overutilization | | |
| Total | Black American | 0.00% | 9.53% | 0.00 | Underutilization | * | p < .05 |
| | Asian American | 0.00% | 5.12% | 0.00 | Underutilization | * | p < .05 |
| | Hispanic American | 0.00% | 1.86% | 0.00 | Underutilization | * | p < .05 |
| | Native American | 0.00% | 0.93% | 0.00 | Underutilization | * | p < .05 |
| | TOTAL MBE | 0.00% | 17.44% | 0.00 | Underutilization | * | p < .05 |
| | Nonminority Female | 1.97% | 6.28% | 31.43 | Underutilization | * | p < .05 |
| | TOTAL M/WBE | 1.97% | 23.72% | 8.32 | Underutilization | * | p < .05 |
| | Non-M/WBE | 98.03% | 76.28% | 128.51 | Overutilization | | |

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**Table C-3,
Disparity Results, Relevant Market Area,
Distribution of Dollars by Business Ownership and Fiscal Year; Professional Services (FY 2017-2021)**

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | Less than 80% | Statistical Significance |
|-------------|--------------------|--------------------|----------------------------|-----------------|---------------------------------|---------------|--------------------------|
| 2017 | Black American | 1.65% | 20.57% | 8.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.00% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.33% | 0.00 | Underutilization | * | |
| | Native American | 0.01% | 0.76% | 0.89 | Underutilization | * | |
| | TOTAL MBE | 1.65% | 24.67% | 6.70 | Underutilization | * | |
| | Nonminority Female | 0.00% | 1.71% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 1.65% | 26.38% | 6.26 | Underutilization | * | |
| | Non-M/WBE | 98.35% | 73.62% | 133.59 | Overutilization | | |
| 2018 | Black American | 4.52% | 20.57% | 21.98 | Underutilization | * | |
| | Asian American | 0.00% | 2.00% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.33% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.76% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 4.52% | 24.67% | 18.33 | Underutilization | * | |
| | Nonminority Female | 0.00% | 1.71% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 4.52% | 26.38% | 17.14 | Underutilization | * | |
| | Non-M/WBE | 95.48% | 73.62% | 129.69 | Overutilization | | |
| 2019 | Black American | 1.18% | 20.57% | 5.72 | Underutilization | * | |
| | Asian American | 0.00% | 2.00% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.33% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.76% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 1.18% | 24.67% | 4.77 | Underutilization | * | |
| | Nonminority Female | 0.00% | 1.71% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 1.18% | 26.38% | 4.46 | Underutilization | * | |
| | Non-M/WBE | 98.82% | 73.62% | 134.23 | Overutilization | | |
| 2020 | Black American | 2.60% | 20.57% | 12.63 | Underutilization | * | |
| | Asian American | 0.00% | 2.00% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.33% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.76% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 2.60% | 24.67% | 10.53 | Underutilization | * | |
| | Nonminority Female | 0.00% | 1.71% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 2.60% | 26.38% | 9.85 | Underutilization | * | |
| | Non-M/WBE | 97.40% | 73.62% | 132.31 | Overutilization | | |
| 2021 | Black American | 2.25% | 20.57% | 10.94 | Underutilization | * | |
| | Asian American | 0.00% | 2.00% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.33% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.76% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 2.25% | 24.67% | 9.12 | Underutilization | * | |
| | Nonminority Female | 0.36% | 1.71% | 21.15 | Underutilization | * | |
| | TOTAL M/WBE | 2.61% | 26.38% | 9.90 | Underutilization | * | |
| | Non-M/WBE | 97.39% | 73.62% | 132.29 | Overutilization | | |
| Total | Black American | 2.13% | 20.57% | 10.35 | Underutilization | * | p < .05 |
| | Asian American | 0.00% | 2.00% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.33% | 0.00 | Underutilization | * | p < .05 |
| | Native American | 0.00% | 0.76% | 0.15 | Underutilization | * | Small Number |
| | TOTAL MBE | 2.13% | 24.67% | 8.64 | Underutilization | * | p < .05 |
| | Nonminority Female | 0.07% | 1.71% | 4.26 | Underutilization | * | p < .05 |
| | TOTAL M/WBE | 2.20% | 26.38% | 8.35 | Underutilization | * | p < .05 |
| | Non-M/WBE | 97.80% | 73.62% | 132.84 | Overutilization | | |

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**Table C-4,
Disparity Results, Relevant Market Area,
Distribution of Dollars by Business Ownership and Fiscal Year; Other Services (FY 2017-2021)**

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | Less than 80% | Statistical Significance |
|-------------|--------------------|--------------------|----------------------------|-----------------|---------------------------------|---------------|--------------------------|
| 2017 | Black American | 0.00% | 12.77% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.05% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.61% | 0.17 | Underutilization | * | |
| | Native American | 0.00% | 1.43% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.85% | 0.02 | Underutilization | * | |
| | Nonminority Female | 0.24% | 3.78% | 6.33 | Underutilization | * | |
| | TOTAL M/WBE | 0.24% | 21.64% | 1.12 | Underutilization | * | |
| | Non-M/WBE | 99.76% | 78.36% | 127.30 | Overutilization | | |
| 2018 | Black American | 0.00% | 12.77% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.05% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.61% | 0.20 | Underutilization | * | |
| | Native American | 0.00% | 1.43% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.85% | 0.02 | Underutilization | * | |
| | Nonminority Female | 0.26% | 3.78% | 6.99 | Underutilization | * | |
| | TOTAL M/WBE | 0.27% | 21.64% | 1.24 | Underutilization | * | |
| | Non-M/WBE | 99.73% | 78.36% | 127.27 | Overutilization | | |
| 2019 | Black American | 0.00% | 12.77% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.05% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.61% | 0.04 | Underutilization | * | |
| | Native American | 0.00% | 1.43% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.85% | 0.00 | Underutilization | * | |
| | Nonminority Female | 1.32% | 3.78% | 34.78 | Underutilization | * | |
| | TOTAL M/WBE | 1.32% | 21.64% | 6.08 | Underutilization | * | |
| | Non-M/WBE | 98.68% | 78.36% | 125.93 | Overutilization | | |
| 2020 | Black American | 0.00% | 12.77% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.05% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.61% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.43% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.85% | 0.00 | Underutilization | * | |
| | Nonminority Female | 1.90% | 3.78% | 50.13 | Underutilization | * | |
| | TOTAL M/WBE | 1.90% | 21.64% | 8.76 | Underutilization | * | |
| | Non-M/WBE | 98.10% | 78.36% | 125.19 | Overutilization | | |
| 2021 | Black American | 0.00% | 12.77% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.05% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.01% | 1.61% | 0.32 | Underutilization | * | |
| | Native American | 0.00% | 1.43% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.01% | 17.85% | 0.03 | Underutilization | * | |
| | Nonminority Female | 2.37% | 3.78% | 62.78 | Underutilization | * | |
| | TOTAL M/WBE | 2.38% | 21.64% | 11.00 | Underutilization | * | |
| | Non-M/WBE | 97.62% | 78.36% | 124.57 | Overutilization | | |
| Total | Black American | 0.00% | 12.77% | 0.00 | Underutilization | * | p < .05 |
| | Asian American | 0.00% | 2.05% | 0.00 | Underutilization | * | p < .05 |
| | Hispanic American | 0.00% | 1.61% | 0.15 | Underutilization | * | p < .05 |
| | Native American | 0.00% | 1.43% | 0.00 | Underutilization | * | p < .05 |
| | TOTAL MBE | 0.00% | 17.85% | 0.01 | Underutilization | * | p < .05 |
| | Nonminority Female | 1.02% | 3.78% | 26.98 | Underutilization | * | p < .05 |
| | TOTAL M/WBE | 1.02% | 21.64% | 4.73 | Underutilization | * | p < .05 |
| | Non-M/WBE | 98.98% | 78.36% | 126.31 | Overutilization | | |

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**Table C-5
Disparity Results, Relevant Market Area
Distribution of Dollars by Business Ownership and Fiscal Year, Goods (FY 2017-2021)**

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | Less than 80% | Statistical Significance |
|-------------|--------------------|--------------------|----------------------------|-----------------|---------------------------------|---------------|--------------------------|
| 2017 | Black American | 0.00% | 6.95% | 0.00 | Underutilization | * | |
| | Asian American | 10.87% | 1.16% | 937.57 | Overutilization | | |
| | Hispanic American | 0.00% | 0.45% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.36% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 10.87% | 5.71% | 190.44 | Overutilization | | |
| | Nonminority Female | 3.25% | 3.39% | 95.88 | Underutilization | | |
| | TOTAL M/WBE | 14.12% | 9.10% | 155.22 | Overutilization | | |
| | Non-M/WBE | 85.88% | 90.90% | 94.47 | Underutilization | | |
| 2018 | Black American | 0.00% | 6.95% | 0.00 | Underutilization | * | |
| | Asian American | 2.33% | 1.16% | 200.83 | Overutilization | | |
| | Hispanic American | 0.00% | 0.45% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.36% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 2.33% | 5.71% | 40.79 | Underutilization | * | |
| | Nonminority Female | 2.48% | 3.39% | 73.16 | Underutilization | * | |
| | TOTAL M/WBE | 4.81% | 9.10% | 52.85 | Underutilization | * | |
| | Non-M/WBE | 95.19% | 90.90% | 104.72 | Overutilization | | |
| 2019 | Black American | 0.00% | 6.95% | 0.00 | Underutilization | * | |
| | Asian American | 1.46% | 1.16% | 125.60 | Overutilization | | |
| | Hispanic American | 0.00% | 0.45% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.36% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 1.46% | 5.71% | 25.51 | Underutilization | * | |
| | Nonminority Female | 3.02% | 3.39% | 89.13 | Underutilization | | |
| | TOTAL M/WBE | 4.48% | 9.10% | 49.21 | Underutilization | * | |
| | Non-M/WBE | 95.52% | 90.90% | 105.08 | Overutilization | | |
| 2020 | Black American | 0.00% | 6.95% | 0.00 | Underutilization | * | |
| | Asian American | 5.14% | 1.16% | 443.25 | Overutilization | | |
| | Hispanic American | 0.00% | 0.45% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.36% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 5.14% | 5.71% | 90.03 | Underutilization | | |
| | Nonminority Female | 3.26% | 3.39% | 96.19 | Underutilization | | |
| | TOTAL M/WBE | 8.40% | 9.10% | 92.33 | Underutilization | | |
| | Non-M/WBE | 91.60% | 90.90% | 100.77 | Overutilization | | |
| 2021 | Black American | 0.00% | 6.95% | 0.00 | Underutilization | * | |
| | Asian American | 6.20% | 1.16% | 534.43 | Overutilization | | |
| | Hispanic American | 0.00% | 0.45% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.36% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 6.20% | 5.71% | 108.56 | Overutilization | | |
| | Nonminority Female | 6.90% | 3.39% | 203.56 | Overutilization | | |
| | TOTAL M/WBE | 13.10% | 9.10% | 143.95 | Overutilization | | |
| | Non-M/WBE | 86.90% | 90.90% | 95.60 | Underutilization | | |
| Total | Black American | 0.00% | 6.95% | 0.00 | Underutilization | * | p < .05 |
| | Asian American | 5.03% | 1.16% | 433.76 | Overutilization | | |
| | Hispanic American | 0.00% | 0.45% | 0.00 | Underutilization | * | p < .05 |
| | Native American | 0.00% | 0.36% | 0.00 | Underutilization | * | p < .05 |
| | TOTAL MBE | 5.03% | 5.71% | 88.11 | Underutilization | | FALSE |
| | Nonminority Female | 3.99% | 3.39% | 117.76 | Overutilization | | FALSE |
| | TOTAL M/WBE | 9.02% | 9.10% | 99.15 | Underutilization | | FALSE |
| | Non-M/WBE | 90.98% | 90.90% | 100.08 | Overutilization | | FALSE |

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Appendix D

Relevant Market By County

APPENDIX D – RELEVANT MARKET BY COUNTY

The tables in Appendix D (Tables D-1 through D-5) present the dollar value of awards by counties for all Harford prime spending, broken down by the five procurement categories. The first percentage column is the percentage of Harford County prime spending with firms in that county and the last column is the cumulative percentage of Harford spending with firms for that county and the counties above it. The counties highlighted in yellow and gold are the relevant market for the Study.

Table D-1

Harford County Disparity Study
Relevant Market Area Distribution of Dollars by Work Category, Prime Construction
(Using Payment Dollars, FY 2017-2021)

| RMA | County | State | Total Amount | | Cumulative % |
|-------------|------------------------|-------|------------------|---------|--------------|
| | | | | Percent | |
| Main County | Harford County | MD | \$ 56,256,320.61 | 36.30% | 36.30% |
| MSA | Anne Arundel County | MD | \$ 9,578,546.28 | 6.18% | 42.49% |
| MSA | Baltimore City | MD | \$ 25,521,896.45 | 16.47% | 58.96% |
| MSA | Baltimore County | MD | \$ 37,801,340.76 | 24.39% | 83.35% |
| MSA | Carroll County | MD | \$ 728,763.01 | 0.47% | 83.82% |
| MSA | Cecil County | MD | \$ 746,446.92 | 0.48% | 84.30% |
| MSA | Howard County | MD | \$ 175,940.48 | 0.11% | 84.42% |
| MSA | Lancaster County | PA | \$ 153,730.66 | 0.10% | 84.52% |
| MSA | York County | PA | \$ 7,977,877.29 | 5.15% | 89.66% |
| CSA | Clarke County | VA | \$ 134,833.35 | 0.09% | 89.75% |
| CSA | District of Columbia | DC | \$ 430,461.68 | 0.28% | 90.03% |
| CSA | Fairfax County | VA | \$ 2,223,547.84 | 1.43% | 91.46% |
| CSA | Frederick County | MD | \$ 203,277.70 | 0.13% | 91.60% |
| CSA | Montgomery County | MD | \$ 1,525,133.01 | 0.98% | 92.58% |
| CSA | Prince George's County | MD | \$ 2,268,405.34 | 1.46% | 94.04% |
| CSA | Washington County | PA | \$ 153,977.16 | 0.10% | 94.14% |
| STATE | Wicomico County | MD | \$ 422,719.03 | 0.27% | 94.42% |
| STATE | Worcester County | MD | \$ 1,125,234.92 | 0.73% | 95.14% |
| USA | Adams County | CO | \$ 571,274.82 | 0.37% | 95.51% |
| USA | Adams County | PA | \$ 50,284.87 | 0.03% | 95.54% |
| USA | Allegheny County | PA | \$ 191,062.08 | 0.12% | 95.67% |
| USA | Chester County | PA | \$ 35,126.42 | 0.02% | 95.69% |
| USA | Cook County | IL | \$ 428,642.13 | 0.28% | 95.97% |

| | | | | | | |
|-----|---------------------|----|----|--------------|-------|---------|
| USA | Crawford County | PA | \$ | 542,780.25 | 0.35% | 96.32% |
| USA | Cumberland County | PA | \$ | 58,815.00 | 0.04% | 96.35% |
| USA | Cuyahoga County | OH | \$ | 251,856.00 | 0.16% | 96.52% |
| USA | Dallas County | TX | \$ | 731,789.00 | 0.47% | 96.99% |
| USA | Fulton County | GA | \$ | 139,860.15 | 0.09% | 97.08% |
| USA | Hanover County | VA | \$ | 12,909.24 | 0.01% | 97.09% |
| USA | Henrico County | VA | \$ | 668,907.05 | 0.43% | 97.52% |
| USA | Jasper County | MO | \$ | 18,785.00 | 0.01% | 97.53% |
| USA | Kaufman County | TX | \$ | 59,798.42 | 0.04% | 97.57% |
| USA | Lauderdale County | AL | \$ | 970,163.25 | 0.63% | 98.20% |
| USA | Lehigh County | PA | \$ | 15,375.00 | 0.01% | 98.21% |
| USA | Madison County | KY | \$ | 61,121.00 | 0.04% | 98.25% |
| USA | Milwaukee County | WI | \$ | 100,511.50 | 0.06% | 98.31% |
| USA | New Castle County | DE | \$ | 740,950.34 | 0.48% | 98.79% |
| USA | Onondaga County | NY | \$ | 350,319.24 | 0.23% | 99.01% |
| USA | Philadelphia County | PA | \$ | 2,332.16 | 0.00% | 99.02% |
| USA | Plymouth County | MA | \$ | 8,654.38 | 0.01% | 99.02% |
| USA | Smith County | TX | \$ | 81,080.38 | 0.05% | 99.07% |
| USA | Stearns County | MN | \$ | 1,405,062.82 | 0.91% | 99.98% |
| USA | Sussex County | DE | \$ | 7,450.00 | 0.00% | 99.99% |
| USA | Williams County | OH | \$ | 22,545.00 | 0.01% | 100.00% |

Griffin & Strong, P.C. 2023

Table D-2

Harford County Disparty Study
 Relevant Market Area Distribution of Dollars by Work Category , Prime A&E
 (Using Payment Dollars, FY 2017-2021)

| RMA | County | State | Total Amount | Percent | Cumulative % |
|------------|------------------------|-------|-----------------|---------|--------------|
| Main Count | Howard County | MD | \$ 2,919,159.07 | 8.30% | 8.30% |
| MSA | Baltimore City | MD | \$ 7,906,938.75 | 22.47% | 22.47% |
| MSA | Baltimore County | MD | \$ 6,013,040.63 | 17.09% | 39.56% |
| MSA | Anne Arundel County | MD | \$ 4,568,560.80 | 12.98% | 52.54% |
| MSA | Harford County | MD | \$ 2,919,159.07 | 8.30% | 60.84% |
| MSA | Howard County | MD | \$ 2,130,319.96 | 6.05% | 66.89% |
| MSA | Cecil County | MD | \$ 1,975.00 | 0.01% | 66.90% |
| CSA | Fairfax County | VA | \$ 4,291,269.17 | 12.20% | 79.09% |
| CSA | Fauquier County | VA | \$ 1,465,672.13 | 4.17% | 83.26% |
| CSA | Loudoun County | VA | \$ 1,435,295.97 | 4.08% | 87.34% |
| CSA | Prince George's County | MD | \$ 500,108.19 | 1.42% | 88.76% |
| CSA | Montgomery County | MD | \$ 292,862.96 | 0.83% | 89.59% |
| CSA | Frederick County | MD | \$ 65,337.35 | 0.19% | 89.78% |
| CSA | Talbot County | MD | \$ 35,127.77 | 0.10% | 89.88% |
| STATE | Wicomico County | MD | \$ 250,809.76 | 0.71% | 90.59% |
| USA | Monroe County | NY | \$ 448,826.28 | 1.28% | 88.61% |
| USA | Philadelphia County | PA | \$ 417,671.55 | 1.19% | 91.22% |
| USA | Dallas County | TX | \$ 410,085.78 | 1.17% | 92.39% |
| USA | Cook County | IL | \$ 381,081.90 | 1.08% | 93.47% |
| USA | Harris County | TX | \$ 366,642.72 | 1.04% | 94.51% |
| USA | Jackson County | MO | \$ 298,079.18 | 0.85% | 95.36% |
| USA | Bucks County | PA | \$ 138,363.61 | 0.39% | 97.30% |
| USA | Henrico County | VA | \$ 121,800.50 | 0.35% | 97.64% |
| USA | Wake County | NC | \$ 99,816.80 | 0.28% | 97.93% |
| USA | Berks County | PA | \$ 94,054.03 | 0.27% | 98.19% |
| USA | Hamilton County | OH | \$ 86,019.11 | 0.24% | 98.44% |
| USA | Los Angeles County | CA | \$ 62,115.96 | 0.18% | 98.61% |
| USA | New Castle County | DE | \$ 77,700.94 | 0.22% | 98.83% |
| USA | Cobb County | GA | \$ 75,290.55 | 0.21% | 99.05% |
| USA | St. Louis city | MO | \$ 68,759.36 | 0.20% | 99.24% |
| USA | Madison County | AL | \$ 59,674.27 | 0.17% | 99.60% |
| USA | El Paso County | CO | \$ 48,384.00 | 0.14% | 99.74% |
| USA | Suffolk County | MA | \$ 28,635.43 | 0.08% | 99.92% |
| USA | Hillsborough County | NH | \$ 10,533.00 | 0.03% | 99.95% |
| USA | Miami-Dade County | FL | \$ 9,274.00 | 0.03% | 99.97% |
| USA | Hopkins County | KY | \$ 8,040.00 | 0.02% | 100.00% |
| USA | Middlesex County | MA | \$ 501.76 | 0.00% | 100.00% |
| USA | Summit County | OH | \$ 487.00 | 0.00% | 100.00% |

Table D-3
Harford County Disparity Study
Relevant Market Area Distribution of Dollars by Work Category , Prime
Professional Services
(Using Payment Dollars, FY 2017-2021)

| RMA | County | State | Total Amount | Percent | Cumulative % |
|------------|------------------------|-------|-----------------|---------|--------------|
| Main Count | Harford County | MD | \$ 5,284,478.52 | 16.06% | 16.06% |
| MSA | Cecil County | MD | \$ 8,577,986.61 | 26.08% | 42.14% |
| MSA | Baltimore City | MD | \$ 5,852,547.05 | 17.79% | 59.93% |
| MSA | Baltimore County | MD | \$ 4,921,588.01 | 14.96% | 74.89% |
| MSA | Anne Arundel County | MD | \$ 3,260,167.98 | 9.91% | 84.80% |
| MSA | Howard County | MD | \$ 825,270.19 | 2.51% | 87.31% |
| MSA | York County | PA | \$ 160,465.38 | 0.49% | 87.80% |
| MSA | Queen Anne's County | MD | \$ 28,872.70 | 0.09% | 87.89% |
| MSA | Carroll County | MD | \$ 3,374.00 | 0.01% | 87.90% |
| CSA | Montgomery County | MD | \$ 421,821.66 | 1.28% | 89.18% |
| CSA | Prince George's County | MD | \$ 70,072.27 | 0.21% | 89.39% |
| CSA | Loudoun County | VA | \$ 60,264.00 | 0.18% | 89.58% |
| CSA | Frederick County | MD | \$ 45,100.00 | 0.14% | 89.71% |
| CSA | Spotsylvania County | VA | \$ 36,108.49 | 0.11% | 89.82% |
| CSA | Fairfax County | VA | \$ 3,250.00 | 0.01% | 89.83% |
| CSA | District of Columbia | DC | \$ 65.00 | 0.00% | 89.83% |
| STATE | Wicomico County | MD | \$ 1,590.00 | 0.00% | 89.84% |
| USA | Waukesha County | WI | \$ 415,726.98 | 1.26% | 91.10% |
| USA | Philadelphia County | PA | \$ 359,069.98 | 1.09% | 92.19% |
| USA | Cook County | IL | \$ 358,102.29 | 1.09% | 93.28% |
| USA | Fulton County | GA | \$ 268,222.35 | 0.82% | 94.10% |
| USA | Dallas County | TX | \$ 265,854.00 | 0.81% | 94.91% |
| USA | Salt Lake County | UT | \$ 225,985.00 | 0.69% | 95.59% |
| USA | Jefferson County | OH | \$ 199,773.25 | 0.61% | 96.20% |
| USA | Berks County | PA | \$ 199,789.51 | 0.61% | 96.81% |
| USA | Yavapai County | AZ | \$ 145,000.00 | 0.44% | 97.25% |
| USA | Richmond city | VA | \$ 143,917.37 | 0.44% | 97.69% |
| USA | Jefferson County | AL | \$ 118,820.68 | 0.36% | 98.05% |
| USA | Bexar County | TX | \$ 109,182.99 | 0.33% | 98.38% |
| USA | Los Angeles County | CA | \$ 109,169.16 | 0.33% | 98.71% |
| USA | Suffolk County | MA | \$ 106,056.06 | 0.32% | 99.03% |
| USA | Santa Clara County | CA | \$ 62,000.00 | 0.19% | 99.22% |
| USA | Centre County | PA | \$ 55,663.38 | 0.17% | 99.39% |

| | | | | | | |
|-----|---------------------|----|----|-----------|-------|---------|
| USA | Allegheny County | PA | \$ | 34,382.50 | 0.10% | 99.50% |
| USA | Lake County | IL | \$ | 24,100.00 | 0.07% | 99.57% |
| USA | Dawson County | GA | \$ | 22,319.25 | 0.07% | 99.64% |
| USA | Virginia Beach city | VA | \$ | 15,330.91 | 0.05% | 99.68% |
| USA | Palm Beach County | FL | \$ | 15,000.00 | 0.05% | 99.73% |
| USA | Poquoson city | VA | \$ | 13,800.00 | 0.04% | 99.77% |
| USA | Wayne County | MI | \$ | 12,088.50 | 0.04% | 99.81% |
| USA | Atlantic County | NJ | \$ | 7,850.00 | 0.02% | 99.83% |
| USA | Orange County | CA | \$ | 6,620.00 | 0.02% | 99.85% |
| USA | New York County | NY | \$ | 6,429.25 | 0.02% | 99.87% |
| USA | Montgomery County | OH | \$ | 6,006.23 | 0.02% | 99.89% |
| USA | Hillsborough County | NH | \$ | 5,318.04 | 0.02% | 99.91% |
| USA | Johnson County | KS | \$ | 4,484.50 | 0.01% | 99.92% |
| USA | Tarrant County | TX | \$ | 4,069.00 | 0.01% | 99.93% |
| USA | Mecklenburg County | NC | \$ | 3,558.33 | 0.01% | 99.94% |
| USA | Williamson County | TX | \$ | 3,515.00 | 0.01% | 99.95% |
| USA | DuPage County | IL | \$ | 4,186.50 | 0.01% | 99.97% |
| USA | Alameda County | CA | \$ | 3,011.46 | 0.01% | 99.98% |
| USA | Lane County | OR | \$ | 1,839.00 | 0.01% | 99.98% |
| USA | Harris County | TX | \$ | 1,300.00 | 0.00% | 99.99% |
| USA | San Diego County | CA | \$ | 1,203.60 | 0.00% | 99.99% |
| USA | Middlesex County | MA | \$ | 1,195.00 | 0.00% | 99.99% |
| USA | Hamilton County | OH | \$ | 531.18 | 0.00% | 99.99% |
| USA | Shenandoah County | VA | \$ | 493.92 | 0.00% | 100.00% |
| USA | Adams County | PA | \$ | 300.00 | 0.00% | 100.00% |
| USA | Hancock County | IN | \$ | 300.00 | 0.00% | 100.00% |
| USA | St. Louis City | MO | \$ | 300.00 | 0.00% | 100.00% |
| USA | Broward County | FL | \$ | 225.00 | 0.00% | 100.00% |
| USA | Marion County | IN | \$ | 102.18 | 0.00% | 100.00% |
| USA | Roanoke County | VA | \$ | 95.00 | 0.00% | 100.00% |

Griffin & Strong, P.C. 2023

Table D-4
Harford County Disparity Study
Relevant Market Area Distribution of Dollars by Work Category , Prime
Other Services
(Using Payment Dollars, FY 2017-2021)

| RMA | County | State | Total Amount | Percent | Cumulative % |
|-------------|------------------------|-------|------------------|---------|--------------|
| Main County | Harford County | MD | \$ 28,468,267.52 | 13.84% | 13.84% |
| MSA | Baltimore County | MD | \$ 93,260,443.25 | 45.34% | 59.18% |
| MSA | Cecil County | MD | \$ 18,151,455.64 | 8.82% | 68.00% |
| MSA | Anne Arundel County | MD | \$ 13,982,096.06 | 6.80% | 74.80% |
| MSA | Howard County | MD | \$ 9,701,112.64 | 4.72% | 79.52% |
| MSA | Baltimore City | MD | \$ 3,891,190.76 | 1.89% | 81.41% |
| MSA | Carroll County | MD | \$ 115,766.50 | 0.06% | 81.47% |
| MSA | York County | PA | \$ 91,473.82 | 0.04% | 81.51% |
| MSA | Queen Anne's County | MD | \$ 81,221.08 | 0.04% | 81.55% |
| MSA | Lancaster County | PA | \$ 4,893.46 | 0.00% | 81.55% |
| CSA | Montgomery County | MD | \$ 2,787,276.18 | 1.36% | 82.91% |
| CSA | Prince William County | VA | \$ 247,322.91 | 0.12% | 83.03% |
| CSA | Fairfax County | VA | \$ 176,384.00 | 0.09% | 83.11% |
| CSA | Prince George's County | MD | \$ 63,048.22 | 0.03% | 83.14% |
| CSA | Stafford County | VA | \$ 43,469.00 | 0.02% | 83.17% |
| CSA | District of Columbia | DC | \$ 19,943.00 | 0.01% | 83.17% |
| CSA | Washington County | MD | \$ 13,156.00 | 0.01% | 83.18% |
| CSA | Talbot County | MD | \$ 3,405.00 | 0.00% | 83.18% |
| CSA | Franklin County | PA | \$ 665.00 | 0.00% | 83.18% |
| CSA | Charles County | MD | \$ 311.00 | 0.00% | 83.18% |
| STATE | Wicomico County | MD | \$ 1,712,916.55 | 0.83% | 84.02% |
| STATE | Dorchester County | MD | \$ 5,030.00 | 0.00% | 84.02% |
| STATE | Worcester County | MD | \$ 1,388.00 | 0.00% | 84.02% |
| STATE | Caroline County | MD | \$ 61.00 | 0.00% | 84.02% |
| USA | Virginia Beach city | VA | \$ 11,338,127.45 | 5.51% | 89.53% |
| USA | Franklin County | OH | \$ 6,243,057.51 | 3.04% | 92.57% |
| USA | Hennepin County | MN | \$ 3,354,694.13 | 1.63% | 94.20% |
| USA | San Francisco County | CA | \$ 1,345,663.35 | 0.65% | 94.85% |
| USA | Norfolk County | MA | \$ 826,721.20 | 0.40% | 95.25% |
| USA | Schuylkill County | PA | \$ 742,109.50 | 0.36% | 95.61% |
| USA | Cook County | IL | \$ 708,970.74 | 0.34% | 95.96% |
| USA | Allegheny County | PA | \$ 696,587.32 | 0.34% | 96.30% |
| USA | Fulton County | GA | \$ 527,466.56 | 0.26% | 96.55% |

| | | | | | |
|-----|---------------------|----|---------------|-------|--------|
| USA | Maricopa County | AZ | \$ 506,671.41 | 0.25% | 96.80% |
| USA | Suffolk County | MA | \$ 494,749.47 | 0.24% | 97.04% |
| USA | Los Angeles County | CA | \$ 457,087.71 | 0.22% | 97.26% |
| USA | Philadelphia County | PA | \$ 448,777.69 | 0.22% | 97.48% |
| USA | Camden County | NJ | \$ 319,391.25 | 0.16% | 97.64% |
| USA | Chester County | PA | \$ 291,637.61 | 0.14% | 97.78% |
| USA | Salt Lake County | UT | \$ 287,200.00 | 0.14% | 97.92% |
| USA | Dallas County | TX | \$ 267,717.03 | 0.13% | 98.05% |
| USA | Jefferson County | KY | \$ 216,497.04 | 0.11% | 98.15% |
| USA | Mobile County | AL | \$ 212,548.27 | 0.10% | 98.26% |
| USA | New York County | NY | \$ 206,214.83 | 0.10% | 98.36% |
| USA | Denver County | CO | \$ 200,928.94 | 0.10% | 98.45% |
| USA | Dakota County | MN | \$ 171,120.12 | 0.08% | 98.54% |
| USA | Riley County | KS | \$ 166,983.59 | 0.08% | 98.62% |
| USA | King County | WA | \$ 156,929.24 | 0.08% | 98.70% |
| USA | Berkeley County | SC | \$ 153,000.00 | 0.07% | 98.77% |
| USA | Multnomah County | OR | \$ 146,400.75 | 0.07% | 98.84% |
| USA | Erie County | NY | \$ 143,435.00 | 0.07% | 98.91% |
| USA | DeKalb County | AL | \$ 134,406.91 | 0.07% | 98.98% |
| USA | Travis County | TX | \$ 134,074.11 | 0.07% | 99.04% |
| USA | Hudson County | NJ | \$ 133,352.00 | 0.06% | 99.11% |
| USA | Torrance County | NM | \$ 110,223.97 | 0.05% | 99.16% |
| USA | Snohomish County | WA | \$ 109,796.00 | 0.05% | 99.21% |
| USA | St. Louis County | MO | \$ 104,870.00 | 0.05% | 99.26% |
| USA | Westmoreland County | PA | \$ 100,985.20 | 0.05% | 99.31% |
| USA | Gwinnett County | GA | \$ 93,637.47 | 0.05% | 99.36% |
| USA | Morris County | NJ | \$ 76,387.00 | 0.04% | 99.40% |
| USA | Palm Beach County | FL | \$ 73,818.00 | 0.04% | 99.43% |
| USA | Centre County | PA | \$ 73,757.00 | 0.04% | 99.47% |
| USA | Collin County | TX | \$ 70,295.00 | 0.03% | 99.50% |
| USA | Mecklenburg County | NC | \$ 66,137.00 | 0.03% | 99.53% |
| USA | Wayne County | MI | \$ 57,224.00 | 0.03% | 99.56% |
| USA | Collier County | FL | \$ 53,692.00 | 0.03% | 99.59% |
| USA | Arapahoe County | CO | \$ 49,980.00 | 0.02% | 99.61% |
| USA | Cache County | UT | \$ 49,650.00 | 0.02% | 99.64% |
| USA | Bucks County | PA | \$ 49,556.00 | 0.02% | 99.66% |
| USA | Dupage County | IL | \$ 48,688.00 | 0.02% | 99.68% |
| USA | Oakland County | MI | \$ 46,496.00 | 0.02% | 99.71% |

| | | | | | | |
|-----|---------------------|----|----|-----------|-------|--------|
| USA | Blue Earth County | MN | \$ | 45,789.00 | 0.02% | 99.73% |
| USA | Brunswick County | NC | \$ | 39,052.00 | 0.02% | 99.75% |
| USA | Ouachita Parish | LA | \$ | 37,858.00 | 0.02% | 99.77% |
| USA | New Haven County | CT | \$ | 37,800.00 | 0.02% | 99.78% |
| USA | Rockland County | NY | \$ | 34,288.00 | 0.02% | 99.80% |
| USA | Santa Clara County | CA | \$ | 33,116.00 | 0.02% | 99.82% |
| USA | Albany County | NY | \$ | 29,676.00 | 0.01% | 99.83% |
| USA | Middlesex County | MA | \$ | 29,500.00 | 0.01% | 99.85% |
| USA | Kent County | MI | \$ | 24,600.00 | 0.01% | 99.86% |
| USA | Monroe County | NY | \$ | 22,130.00 | 0.01% | 99.87% |
| USA | Lake County | IL | \$ | 20,495.00 | 0.01% | 99.88% |
| USA | Bergen County | NJ | \$ | 20,242.00 | 0.01% | 99.89% |
| USA | St. Tammany Parish | LA | \$ | 16,400.00 | 0.01% | 99.90% |
| USA | Allen County | IN | \$ | 16,100.00 | 0.01% | 99.90% |
| USA | San Mateo County | CA | \$ | 15,780.00 | 0.01% | 99.91% |
| USA | Bell County | TX | \$ | 13,651.00 | 0.01% | 99.92% |
| USA | Franklin County | NC | \$ | 11,451.00 | 0.01% | 99.92% |
| USA | St. Louis City | MO | \$ | 9,969.00 | 0.00% | 99.93% |
| USA | Jefferson County | AL | \$ | 9,570.00 | 0.00% | 99.93% |
| USA | Jackson County | MO | \$ | 9,444.00 | 0.00% | 99.94% |
| USA | Crittenden County | AR | \$ | 9,325.00 | 0.00% | 99.94% |
| USA | Monterey County | CA | \$ | 8,400.00 | 0.00% | 99.95% |
| USA | Davidson County | TN | \$ | 8,320.00 | 0.00% | 99.95% |
| USA | Essex County | NJ | \$ | 7,500.00 | 0.00% | 99.95% |
| USA | Shenandoah County | VA | \$ | 7,010.00 | 0.00% | 99.96% |
| USA | Sussex County | NJ | \$ | 5,922.00 | 0.00% | 99.96% |
| USA | Sagadahoc County | ME | \$ | 5,755.00 | 0.00% | 99.96% |
| USA | Clark County | NV | \$ | 5,475.00 | 0.00% | 99.97% |
| USA | Adams County | PA | \$ | 5,154.00 | 0.00% | 99.97% |
| USA | Hillsborough County | FL | \$ | 5,066.00 | 0.00% | 99.97% |
| USA | Richland County | SC | \$ | 4,760.00 | 0.00% | 99.97% |
| USA | Monmouth County | NJ | \$ | 4,500.00 | 0.00% | 99.98% |
| USA | Fairfield County | CT | \$ | 4,430.00 | 0.00% | 99.98% |
| USA | Suffolk County | NY | \$ | 3,995.00 | 0.00% | 99.98% |
| USA | Cuyahoga County | OH | \$ | 3,777.00 | 0.00% | 99.98% |
| USA | Pinellas County | FL | \$ | 3,573.00 | 0.00% | 99.98% |
| USA | Washington County | MN | \$ | 3,500.00 | 0.00% | 99.99% |
| USA | Clackamas County | OR | \$ | 3,290.00 | 0.00% | 99.99% |

| | | | | | | |
|-----|-----------------------|----|----|----------|-------|---------|
| USA | Union County | NC | \$ | 3,000.00 | 0.00% | 99.99% |
| USA | Bullitt County | KY | \$ | 2,818.00 | 0.00% | 99.99% |
| USA | Wake County | NC | \$ | 2,499.00 | 0.00% | 99.99% |
| USA | Broward County | FL | \$ | 2,341.00 | 0.00% | 99.99% |
| USA | Middlesex County | CT | \$ | 2,095.00 | 0.00% | 99.99% |
| USA | Ocean County | NJ | \$ | 1,876.00 | 0.00% | 99.99% |
| USA | Taylor County | GA | \$ | 1,733.00 | 0.00% | 99.99% |
| USA | Delaware County | OH | \$ | 1,676.00 | 0.00% | 100.00% |
| USA | San Bernardino County | CA | \$ | 1,590.00 | 0.00% | 100.00% |
| USA | Denton County | TX | \$ | 1,464.00 | 0.00% | 100.00% |
| USA | Burlington County | NJ | \$ | 1,165.00 | 0.00% | 100.00% |
| USA | Plymouth County | MA | \$ | 995.00 | 0.00% | 100.00% |
| USA | Giles County | VA | \$ | 945.00 | 0.00% | 100.00% |
| USA | Lee County | FL | \$ | 800.00 | 0.00% | 100.00% |
| USA | Bonner County | ID | \$ | 720.00 | 0.00% | 100.00% |
| USA | Pima County | AZ | \$ | 600.00 | 0.00% | 100.00% |
| USA | Milwaukee County | WI | \$ | 336.00 | 0.00% | 100.00% |
| USA | Sussex County | DE | \$ | 299.00 | 0.00% | 100.00% |
| USA | New Castle County | DE | \$ | 295.00 | 0.00% | 100.00% |
| USA | Lawrence County | IN | \$ | 205.00 | 0.00% | 100.00% |
| USA | Tom Green County | TX | \$ | 200.00 | 0.00% | 100.00% |
| USA | Shelby County | TN | \$ | 129.00 | 0.00% | 100.00% |

Griffin & Strong, P.C. 2023

Table D-5
Harford County Disparity Study
Relevant Market Area Distribution of Dollars by Work Category , Prime
Goods
(Using Payment Dollars, FY 2017-2021)

| RMA | County | State | Total Amount | Percent | Cumulative % |
|-------------|------------------------|-------|------------------|---------|--------------|
| Main County | Harford County | MD | \$ 11,706,771.46 | 10.11% | 10.11% |
| MSA | Baltimore County | MD | \$ 13,249,869.41 | 11.44% | 21.55% |
| MSA | Anne Arundel County | MD | \$ 11,753,733.65 | 10.15% | 31.70% |
| MSA | Baltimore City | MD | \$ 6,627,880.66 | 5.72% | 37.43% |
| MSA | Howard County | MD | \$ 5,846,059.02 | 5.05% | 42.48% |
| MSA | Carroll County | MD | \$ 257,293.96 | 0.22% | 42.70% |
| MSA | York County | PA | \$ 130,919.68 | 0.11% | 42.81% |
| MSA | Lancaster County | PA | \$ 108,336.78 | 0.09% | 42.91% |
| MSA | Cecil County | MD | \$ 57,590.76 | 0.05% | 42.95% |
| CSA | Queen Anne's County | MD | \$ 57,157.00 | 0.05% | 43.00% |
| CSA | Fairfax County | VA | \$ 13,074,147.58 | 11.29% | 54.30% |
| CSA | St. Mary's County | MD | \$ 1,900,523.14 | 1.64% | 55.94% |
| CSA | Dallas County | TX | \$ 1,727,376.67 | 1.49% | 57.43% |
| CSA | San Francisco County | CA | \$ 1,693,740.21 | 1.46% | 58.89% |
| CSA | Los Angeles County | CA | \$ 1,537,748.02 | 1.33% | 60.22% |
| CSA | Whitfield County | GA | \$ 1,526,791.49 | 1.32% | 61.54% |
| CSA | New York County | NY | \$ 1,442,905.88 | 1.25% | 62.78% |
| CSA | Frederick County | MD | \$ 1,407,155.66 | 1.22% | 64.00% |
| CSA | Jackson County | MO | \$ 1,402,479.58 | 1.21% | 65.21% |
| CSA | Morris County | NJ | \$ 1,389,294.29 | 1.20% | 66.41% |
| CSA | Montgomery County | MD | \$ 1,266,180.67 | 1.09% | 67.50% |
| CSA | Prince William County | VA | \$ 1,223,667.72 | 1.06% | 68.56% |
| CSA | Montgomery County | PA | \$ 454,351.12 | 0.39% | 68.95% |
| CSA | Prince George's County | MD | \$ 123,048.92 | 0.11% | 69.06% |
| CSA | Charles County | MD | \$ 51,958.04 | 0.04% | 69.10% |
| CSA | Talbot County | MD | \$ 18,844.20 | 0.02% | 69.12% |
| CSA | Alexandria City | VA | \$ 14,933.00 | 0.01% | 69.13% |
| CSA | Franklin County | VA | \$ 8,976.35 | 0.01% | 69.14% |
| CSA | Loudoun County | VA | \$ 5,175.00 | 0.00% | 69.15% |
| CSA | Calvert County | MD | \$ 3,465.00 | 0.00% | 69.15% |
| CSA | Washington County | PA | \$ 1,650.61 | 0.00% | 69.15% |
| CSA | Washington County | MD | \$ 1,120.22 | 0.00% | 69.15% |

| | | | | | |
|-------|----------------------|----|-----------------|-------|--------|
| CSA | Manassas City | VA | \$ 450.00 | 0.00% | 69.15% |
| STATE | Wicomico County | MD | \$ 364,377.84 | 0.31% | 69.47% |
| STATE | Worcester County | MD | \$ 15,196.32 | 0.01% | 69.48% |
| STATE | Garrett County | MD | \$ 207.66 | 0.00% | 69.48% |
| USA | Cook County | IL | \$ 6,323,202.90 | 5.46% | 74.94% |
| USA | Fulton County | GA | \$ 4,736,490.72 | 4.09% | 79.03% |
| USA | Middlesex County | MA | \$ 3,218,736.07 | 2.78% | 81.81% |
| USA | Sussex County | DE | \$ 2,964,878.64 | 2.56% | 84.37% |
| USA | Suffolk city | VA | \$ 1,985,941.74 | 1.72% | 86.09% |
| USA | Forsyth County | NC | \$ 1,969,395.30 | 1.70% | 87.79% |
| USA | Gordon County | GA | \$ 1,153,269.89 | 1.00% | 88.78% |
| USA | District of Columbia | DC | \$ 949,504.08 | 0.82% | 89.60% |
| USA | Philadelphia County | PA | \$ 786,369.05 | 0.68% | 90.28% |
| USA | Maricopa County | AZ | \$ 730,678.00 | 0.63% | 90.91% |
| USA | Suffolk County | MA | \$ 597,350.23 | 0.52% | 91.43% |
| USA | Plymouth County | MA | \$ 574,992.39 | 0.50% | 91.92% |
| USA | Mecklenburg County | NC | \$ 471,116.63 | 0.41% | 92.33% |
| USA | Burlington County | NJ | \$ 455,138.61 | 0.39% | 92.72% |
| USA | Allegheny County | PA | \$ 443,996.00 | 0.38% | 93.11% |
| USA | Wake County | NC | \$ 359,836.96 | 0.31% | 93.42% |
| USA | Erie County | NY | \$ 354,516.56 | 0.31% | 93.73% |
| USA | Houston County | AL | \$ 349,131.05 | 0.30% | 94.03% |
| USA | Monroe County | NY | \$ 322,514.65 | 0.28% | 94.31% |
| USA | Berks County | PA | \$ 315,446.30 | 0.27% | 94.58% |
| USA | Mercer County | PA | \$ 231,237.50 | 0.20% | 94.78% |
| USA | Chester County | PA | \$ 217,787.59 | 0.19% | 94.97% |
| USA | Shelby County | AL | \$ 216,890.00 | 0.19% | 95.15% |
| USA | Jefferson County | AL | \$ 208,054.68 | 0.18% | 95.33% |
| USA | Essex County | NJ | \$ 199,301.00 | 0.17% | 95.50% |
| USA | St. Louis County | MO | \$ 193,894.52 | 0.17% | 95.67% |
| USA | Virginia Beach city | VA | \$ 193,836.88 | 0.17% | 95.84% |
| USA | Guilford County | NC | \$ 170,300.39 | 0.15% | 95.99% |
| USA | Lucas County | OH | \$ 162,177.20 | 0.14% | 96.13% |
| USA | Dauphin County | PA | \$ 149,221.52 | 0.13% | 96.26% |
| USA | Oakland County | MI | \$ 148,545.00 | 0.13% | 96.38% |
| USA | Cumberland County | PA | \$ 143,180.73 | 0.12% | 96.51% |
| USA | Tarrant County | TX | \$ 143,027.05 | 0.12% | 96.63% |
| USA | Monmouth County | NJ | \$ 134,571.76 | 0.12% | 96.75% |

| | | | | | |
|-----|---------------------|----|---------------|-------|--------|
| USA | DuPage County | IL | \$ 120,183.60 | 0.10% | 96.85% |
| USA | Mclennan County | TX | \$ 107,687.45 | 0.09% | 96.94% |
| USA | Orange County | CA | \$ 101,367.75 | 0.09% | 97.03% |
| USA | Seminole County | FL | \$ 97,260.07 | 0.08% | 97.12% |
| USA | Lancaster County | NE | \$ 92,981.12 | 0.08% | 97.20% |
| USA | Palm Beach County | FL | \$ 92,594.49 | 0.08% | 97.28% |
| USA | Henrico County | VA | \$ 91,621.40 | 0.08% | 97.35% |
| USA | New Haven County | CT | \$ 91,307.50 | 0.08% | 97.43% |
| USA | Becker County | MN | \$ 89,608.75 | 0.08% | 97.51% |
| USA | Oklahoma County | OK | \$ 80,029.78 | 0.07% | 97.58% |
| USA | Volusia County | FL | \$ 78,706.12 | 0.07% | 97.65% |
| USA | Humboldt County | CA | \$ 76,696.75 | 0.07% | 97.71% |
| USA | Denver County | CO | \$ 73,299.35 | 0.06% | 97.78% |
| USA | Wayne County | NY | \$ 71,881.66 | 0.06% | 97.84% |
| USA | Lebanon County | PA | \$ 68,345.00 | 0.06% | 97.90% |
| USA | Chemung County | NY | \$ 68,158.14 | 0.06% | 97.96% |
| USA | Chesterfield County | VA | \$ 59,783.00 | 0.05% | 98.01% |
| USA | Iredell County | NC | \$ 58,656.00 | 0.05% | 98.06% |
| USA | Saratoga County | NY | \$ 57,311.00 | 0.05% | 98.11% |
| USA | Hamilton County | TN | \$ 51,907.77 | 0.04% | 98.15% |
| USA | Huntingdon County | PA | \$ 51,306.60 | 0.04% | 98.20% |
| USA | Weber County | UT | \$ 49,902.00 | 0.04% | 98.24% |
| USA | Otero County | CO | \$ 49,187.10 | 0.04% | 98.28% |
| USA | Maury County | TN | \$ 48,723.74 | 0.04% | 98.33% |
| USA | Essex County | MA | \$ 48,476.01 | 0.04% | 98.37% |
| USA | Gwinnett County | GA | \$ 48,090.69 | 0.04% | 98.41% |
| USA | Hennepin County | MN | \$ 46,326.17 | 0.04% | 98.45% |
| USA | Bucks County | PA | \$ 45,578.24 | 0.04% | 98.49% |
| USA | Cumberland County | NJ | \$ 45,207.70 | 0.04% | 98.53% |
| USA | Forsyth County | GA | \$ 45,133.70 | 0.04% | 98.57% |
| USA | Weld County | CO | \$ 40,813.00 | 0.04% | 98.60% |
| USA | Baldwin County | AL | \$ 40,788.50 | 0.04% | 98.64% |
| USA | Hamilton County | OH | \$ 40,221.48 | 0.03% | 98.67% |
| USA | Delaware County | PA | \$ 39,865.33 | 0.03% | 98.71% |
| USA | Ozaukee County | WI | \$ 39,586.00 | 0.03% | 98.74% |
| USA | Noble County | OK | \$ 38,925.76 | 0.03% | 98.77% |
| USA | St. Louis City | MO | \$ 61,030.85 | 0.05% | 98.83% |
| USA | Forrest County | MS | \$ 37,000.00 | 0.03% | 98.86% |

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|-----|-----------------------|----|----|-----------|-------|--------|
| USA | Broward County | FL | \$ | 36,525.00 | 0.03% | 98.89% |
| USA | Orange County | FL | \$ | 36,386.90 | 0.03% | 98.92% |
| USA | Greene County | MO | \$ | 34,733.72 | 0.03% | 98.95% |
| USA | Cobb County | GA | \$ | 33,965.60 | 0.03% | 98.98% |
| USA | Pinellas County | FL | \$ | 31,298.85 | 0.03% | 99.01% |
| USA | Mobile County | AL | \$ | 28,760.50 | 0.02% | 99.03% |
| USA | Lake County | IL | \$ | 28,627.10 | 0.02% | 99.06% |
| USA | Ventura County | CA | \$ | 28,166.00 | 0.02% | 99.08% |
| USA | San Mateo County | CA | \$ | 27,500.00 | 0.02% | 99.11% |
| USA | Jefferson County | CO | \$ | 25,877.24 | 0.02% | 99.13% |
| USA | Camden County | NJ | \$ | 25,807.27 | 0.02% | 99.15% |
| USA | Waukesha County | WI | \$ | 25,736.45 | 0.02% | 99.17% |
| USA | Kings County | NY | \$ | 25,510.13 | 0.02% | 99.19% |
| USA | Sangamon County | IL | \$ | 24,489.00 | 0.02% | 99.22% |
| USA | Spokane County | WA | \$ | 24,238.33 | 0.02% | 99.24% |
| USA | Clark County | NV | \$ | 24,224.80 | 0.02% | 99.26% |
| USA | Columbia County | GA | \$ | 24,212.00 | 0.02% | 99.28% |
| USA | Richland County | SC | \$ | 22,699.00 | 0.02% | 99.30% |
| USA | Miami-Dade County | FL | \$ | 22,255.99 | 0.02% | 99.32% |
| USA | Stanislaus County | CA | \$ | 22,190.99 | 0.02% | 99.34% |
| USA | Marion County | IN | \$ | 21,610.32 | 0.02% | 99.36% |
| USA | York County | SC | \$ | 21,600.00 | 0.02% | 99.37% |
| USA | Broome County | NY | \$ | 21,492.45 | 0.02% | 99.39% |
| USA | Passaic County | NJ | \$ | 20,637.88 | 0.02% | 99.41% |
| USA | Hendricks County | IN | \$ | 20,379.05 | 0.02% | 99.43% |
| USA | Solano County | CA | \$ | 20,200.00 | 0.02% | 99.45% |
| USA | Washington County | AR | \$ | 19,744.00 | 0.02% | 99.46% |
| USA | Arapahoe County | CO | \$ | 18,600.00 | 0.02% | 99.48% |
| USA | Dane County | WI | \$ | 17,808.07 | 0.02% | 99.49% |
| USA | DeSoto County | MS | \$ | 17,224.00 | 0.01% | 99.51% |
| USA | New Castle County | DE | \$ | 16,376.55 | 0.01% | 99.52% |
| USA | Pickaway County | OH | \$ | 16,353.70 | 0.01% | 99.54% |
| USA | San Bernardino County | CA | \$ | 16,309.54 | 0.01% | 99.55% |
| USA | Contra Costa County | CA | \$ | 16,216.34 | 0.01% | 99.57% |
| USA | Snyder County | PA | \$ | 15,852.00 | 0.01% | 99.58% |
| USA | Gloucester County | NJ | \$ | 15,507.00 | 0.01% | 99.59% |
| USA | Calhoun County | AL | \$ | 14,500.00 | 0.01% | 99.60% |
| USA | Orange County | NY | \$ | 14,480.00 | 0.01% | 99.62% |

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|-----|----------------------|----|----|-----------|-------|--------|
| USA | Polk County | FL | \$ | 14,280.00 | 0.01% | 99.63% |
| USA | Winnebago County | WI | \$ | 14,157.54 | 0.01% | 99.64% |
| USA | Franklin County | NC | \$ | 13,102.69 | 0.01% | 99.65% |
| USA | Dakota County | MN | \$ | 11,812.34 | 0.01% | 99.66% |
| USA | Kenosha County | WI | \$ | 11,718.32 | 0.01% | 99.67% |
| USA | Charlottesville city | VA | \$ | 11,587.44 | 0.01% | 99.68% |
| USA | Hillsborough County | FL | \$ | 11,448.00 | 0.01% | 99.69% |
| USA | Washington County | MN | \$ | 10,886.00 | 0.01% | 99.70% |
| USA | Berkshire County | MA | \$ | 10,577.00 | 0.01% | 99.71% |
| USA | Salt Lake County | UT | \$ | 10,370.38 | 0.01% | 99.72% |
| USA | Milwaukee County | WI | \$ | 10,286.10 | 0.01% | 99.73% |
| USA | Rutherford County | TN | \$ | 9,582.48 | 0.01% | 99.74% |
| USA | Bergen County | NJ | \$ | 9,064.38 | 0.01% | 99.75% |
| USA | Poweshiek County | IA | \$ | 8,893.05 | 0.01% | 99.75% |
| USA | Madison County | IN | \$ | 8,707.58 | 0.01% | 99.76% |
| USA | Calumet County | WI | \$ | 8,678.01 | 0.01% | 99.77% |
| USA | La Crosse County | WI | \$ | 8,621.42 | 0.01% | 99.78% |
| USA | Placer County | CA | \$ | 8,534.00 | 0.01% | 99.78% |
| USA | Richmond city | VA | \$ | 8,243.00 | 0.01% | 99.79% |
| USA | DeKalb County | GA | \$ | 8,224.56 | 0.01% | 99.80% |
| USA | Luzerne County | PA | \$ | 7,825.00 | 0.01% | 99.80% |
| USA | Windham County | CT | \$ | 7,497.00 | 0.01% | 99.81% |
| USA | Ada County | ID | \$ | 7,406.00 | 0.01% | 99.82% |
| USA | La Plata County | CO | \$ | 7,335.97 | 0.01% | 99.82% |
| USA | Washtenaw County | MI | \$ | 6,971.00 | 0.01% | 99.83% |
| USA | Harrisonburg city | VA | \$ | 6,948.13 | 0.01% | 99.84% |
| USA | Sacramento County | CA | \$ | 6,809.40 | 0.01% | 99.84% |
| USA | Charleston County | SC | \$ | 6,730.00 | 0.01% | 99.85% |
| USA | Roanoke City | VA | \$ | 6,711.00 | 0.01% | 99.85% |
| USA | Jefferson County | KY | \$ | 6,684.70 | 0.01% | 99.86% |
| USA | Adams County | PA | \$ | 6,630.00 | 0.01% | 99.86% |
| USA | Spartanburg County | SC | \$ | 6,521.87 | 0.01% | 99.87% |
| USA | Gallatin County | MT | \$ | 6,381.89 | 0.01% | 99.88% |
| USA | Suffolk County | NY | \$ | 6,250.00 | 0.01% | 99.88% |
| USA | Williamson County | TN | \$ | 6,078.00 | 0.01% | 99.89% |
| USA | Venango County | PA | \$ | 5,731.00 | 0.00% | 99.89% |
| USA | Nassau County | NY | \$ | 5,387.08 | 0.00% | 99.90% |
| USA | Rock County | WI | \$ | 4,922.87 | 0.00% | 99.90% |

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|-----|---------------------|----|----|----------|-------|--------|
| USA | Lehigh County | PA | \$ | 4,754.12 | 0.00% | 99.90% |
| USA | Crawford County | PA | \$ | 4,448.00 | 0.00% | 99.91% |
| USA | Payne County | OK | \$ | 4,403.00 | 0.00% | 99.91% |
| USA | Hartford County | CT | \$ | 4,205.78 | 0.00% | 99.92% |
| USA | Boulder County | CO | \$ | 4,174.46 | 0.00% | 99.92% |
| USA | San Diego County | CA | \$ | 3,566.21 | 0.00% | 99.92% |
| USA | Bronx County | NY | \$ | 4,022.02 | 0.00% | 99.93% |
| USA | King County | WA | \$ | 3,776.00 | 0.00% | 99.93% |
| USA | Lee County | FL | \$ | 3,760.90 | 0.00% | 99.93% |
| USA | Clay County | MO | \$ | 3,699.75 | 0.00% | 99.94% |
| USA | Uvalde County | TX | \$ | 3,481.64 | 0.00% | 99.94% |
| USA | Fort Bend County | TX | \$ | 3,414.00 | 0.00% | 99.94% |
| USA | Monongalia County | WV | \$ | 3,369.19 | 0.00% | 99.94% |
| USA | Northampton County | PA | \$ | 3,357.24 | 0.00% | 99.95% |
| USA | Travis County | TX | \$ | 3,234.70 | 0.00% | 99.95% |
| USA | Vilas County | WI | \$ | 3,218.00 | 0.00% | 99.95% |
| USA | Chaffee County | CO | \$ | 3,122.41 | 0.00% | 99.96% |
| USA | Bonner County | ID | \$ | 3,112.50 | 0.00% | 99.96% |
| USA | Johnson County | KS | \$ | 3,087.15 | 0.00% | 99.96% |
| USA | Chenango County | NY | \$ | 3,028.02 | 0.00% | 99.96% |
| USA | Shelby County | TN | \$ | 3,013.66 | 0.00% | 99.97% |
| USA | Albany County | NY | \$ | 2,784.00 | 0.00% | 99.97% |
| USA | Fresno County | CA | \$ | 2,514.10 | 0.00% | 99.97% |
| USA | San Joaquin County | CA | \$ | 2,502.00 | 0.00% | 99.97% |
| USA | Isabella County | MI | \$ | 2,499.00 | 0.00% | 99.98% |
| USA | Graves County | KY | \$ | 2,278.28 | 0.00% | 99.98% |
| USA | Oneida County | WI | \$ | 1,148.22 | 0.00% | 99.98% |
| USA | Bexar County | TX | \$ | 2,222.75 | 0.00% | 99.98% |
| USA | Riverside County | CA | \$ | 2,100.00 | 0.00% | 99.98% |
| USA | York County | ME | \$ | 2,099.00 | 0.00% | 99.98% |
| USA | Cuyahoga County | OH | \$ | 1,767.53 | 0.00% | 99.99% |
| USA | Wayne County | OH | \$ | 1,761.40 | 0.00% | 99.99% |
| USA | Indian River County | FL | \$ | 1,748.49 | 0.00% | 99.99% |
| USA | Santa Cruz County | CA | \$ | 1,579.77 | 0.00% | 99.99% |
| USA | Martin County | FL | \$ | 1,299.00 | 0.00% | 99.99% |
| USA | Sedgwick County | KS | \$ | 1,299.36 | 0.00% | 99.99% |
| USA | Stearns County | MN | \$ | 1,220.00 | 0.00% | 99.99% |
| USA | Dodge County | WI | \$ | 1,148.00 | 0.00% | 99.99% |

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|-----|------------------------|----|----|--------|-------|---------|
| USA | Middlesex County | CT | \$ | 899.06 | 0.00% | 99.99% |
| USA | Lycoming County | PA | \$ | 523.97 | 0.00% | 99.99% |
| USA | Orange County | NC | \$ | 697.88 | 0.00% | 100.00% |
| USA | Yancey County | NC | \$ | 647.50 | 0.00% | 100.00% |
| USA | Norfolk County | MA | \$ | 587.13 | 0.00% | 100.00% |
| USA | San Luis Obispo County | CA | \$ | 195.80 | 0.00% | 100.00% |
| USA | Muscogee County | GA | \$ | 548.35 | 0.00% | 100.00% |
| USA | Howell County | MO | \$ | 527.95 | 0.00% | 100.00% |
| USA | Summit County | OH | \$ | 519.25 | 0.00% | 100.00% |
| USA | Kalamazoo County | MI | \$ | 482.00 | 0.00% | 100.00% |
| USA | Allen County | IN | \$ | 479.95 | 0.00% | 100.00% |
| USA | Winona County | MN | \$ | 452.13 | 0.00% | 100.00% |
| USA | Barnwell County | SC | \$ | 450.00 | 0.00% | 100.00% |
| USA | Blair County | PA | \$ | 410.87 | 0.00% | 100.00% |
| USA | Anderson County | SC | \$ | 287.50 | 0.00% | 100.00% |
| USA | Broomfield County | CO | \$ | 284.50 | 0.00% | 100.00% |
| USA | Rockingham County | NC | \$ | 250.00 | 0.00% | 100.00% |
| USA | Marshall County | TN | \$ | 199.00 | 0.00% | 100.00% |
| USA | Santa Clara County | CA | \$ | 196.00 | 0.00% | 100.00% |
| USA | Suwannee County | FL | \$ | 166.99 | 0.00% | 100.00% |
| USA | El Paso County | CO | \$ | 144.56 | 0.00% | 100.00% |
| USA | Monroe County | GA | \$ | 104.50 | 0.00% | 100.00% |
| USA | Boundary County | ID | \$ | 73.00 | 0.00% | 100.00% |

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Appendix E

Detailed Availability Tables

APPENDIX E – DETAILED AVAILABILITY TABLES

Tables E-1 through E-5 presents numbers on M/WBE availability corresponding to the availability percentages in Tables 7-11 in the Quantitative Analysis Chapter . The availability methodology for creating the Master Vendor table for these availability tables is contained in the Quantitative Analysis Section

Table E-1
Availability of Firms by Business Ownership in Relevant Market Area
Business Ownership and Fiscal Year, Construction (FY 2017-2021)

| Business Ownership Classification | Number of Firms | Percent of Firms |
|-----------------------------------|-----------------|------------------|
| Black American | 130 | 15.48% |
| Asian American | 15 | 1.79% |
| Hispanic American | 45 | 5.36% |
| Native American | 9 | 1.07% |
| TOTAL MBE | 199 | 23.69% |
| Nonminority Female | 46 | 5.48% |
| TOTAL M/WBE | 245 | 29.17% |
| NON-M/WDBE | 595 | 70.83% |
| TOTAL FIRMS | 840 | 100.00% |

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Table E-2
Availability of Firms by Business Ownership in Relevant Market Area
Business Ownership and Fiscal Year, A & E (FY 2017-2021)

| Business Ownership Classification | Number of Firms | Percent of Firms |
|-----------------------------------|-----------------|------------------|
| Black American | 41 | 9.53% |
| Asian American | 22 | 5.12% |
| Hispanic American | 8 | 1.86% |
| Native American | 4 | 0.93% |
| TOTAL MBE | 75 | 17.44% |
| Nonminority Female | 27 | 6.28% |
| TOTAL M/WBE | 102 | 23.72% |
| NON-M/WDBE | 328 | 76.28% |
| TOTAL FIRMS | 430 | 100.00% |

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Table E-3
Availability of Firms by Business Ownership in Relevant Market Area
Business Ownership and Fiscal Year, Professional Services (FY 2017-2021)

| Business Ownership Classification | Number of Firms | Percent of Firms |
|-----------------------------------|-----------------|------------------|
| Black American | 216 | 20.57% |
| Asian American | 21 | 2.00% |
| Hispanic American | 14 | 1.33% |
| Native American | 8 | 0.76% |
| TOTAL MBE | 259 | 24.67% |
| Nonminority Female | 18 | 1.71% |
| TOTAL M/WBE | 277 | 26.38% |
| NON-M/WDBE | 773 | 73.62% |
| TOTAL FIRMS | 1,050 | 100.00% |

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Table E-4
Availability of Firms by Business Ownership in Relevant Market Area
Business Ownership and Fiscal Year, Other Services (FY 2017-2021)

| Business Ownership Classification | Number of Firms | Percent of Firms |
|-----------------------------------|-----------------|------------------|
| Black American | 206 | 12.77% |
| Asian American | 33 | 2.05% |
| Hispanic American | 26 | 1.61% |
| Native American | 23 | 1.43% |
| TOTAL MBE | 288 | 17.85% |
| Nonminority Female | 61 | 3.78% |
| TOTAL M/WBE | 349 | 21.64% |
| NON-M/WDBE | 1,264 | 78.36% |
| TOTAL FIRMS | 1,613 | 100.00% |

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Table E-5
Availability of Firms by Business Ownership in Relevant Market Area
Business Ownership and Fiscal Year, Goods (FY 2017-2021)

| Business Ownership Classification | Number of Firms | Percent of Firms |
|-----------------------------------|-----------------|------------------|
| Black American | 42 | 6.95% |
| Asian American | 13 | 1.16% |
| Hispanic American | 5 | 0.45% |
| Native American | 4 | 0.36% |
| TOTAL MBE | 64 | 5.71% |
| Nonminority Female | 38 | 3.39% |
| TOTAL M/WBE | 102 | 9.10% |
| NON-M/WDBE | 1,019 | 90.90% |
| TOTAL FIRMS | 1,121 | 100.00% |

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Appendix F

Detailed Disparity Analysis All Dollars Under \$500,000 and \$1,000,000

APPENDIX F - DETAILED DISPARITY ANALYSIS ALL DOLLARS UNDER \$500,000 AND \$1,000,000

Tables F-1 through F5 display prime disparity ratios for projects less than \$500,000 , with Tables F-6 through F10 displaying prime disparity ratios for projects less than \$1,000,000.

Table F-1
Disparity Results Relevant Market Area Under \$500,000
Distribution of Dollars by Business Ownership and Fiscal Year, Construction (FY 2017-
2021)

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | Less than 80% | Statistical Significance |
|-------------|--------------------|--------------------|----------------------------|-----------------|---------------------------------|---------------|--------------------------|
| 2017 | Black American | 0.00% | 15.48% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 1.79% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 5.36% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.07% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 23.69% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 5.48% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 29.17% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 70.83% | 141.18 | Overutilization | | |
| 2018 | Black American | 0.00% | 15.48% | 0.00 | Underutilization | * | |
| | Asian American | 2.70% | 1.79% | 150.94 | Overutilization | | |
| | Hispanic American | 0.00% | 5.36% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.07% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 2.70% | 23.69% | 11.38 | Underutilization | * | |
| | Nonminority Female | 0.00% | 5.48% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 2.70% | 29.17% | 9.24 | Underutilization | * | |
| | Non-M/WBE | 97.30% | 70.83% | 137.37 | Overutilization | | |
| 2019 | Black American | 0.00% | 15.48% | 0.00 | Underutilization | * | |
| | Asian American | 6.16% | 1.79% | 344.88 | Overutilization | | |
| | Hispanic American | 0.00% | 5.36% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.07% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 6.16% | 23.69% | 26.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 5.48% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 6.16% | 29.17% | 21.11 | Underutilization | * | |
| | Non-M/WBE | 93.84% | 70.83% | 132.48 | Overutilization | | |
| 2020 | Black American | 0.00% | 15.48% | 0.00 | Underutilization | * | |
| | Asian American | 7.66% | 1.79% | 429.11 | Overutilization | | |
| | Hispanic American | 0.00% | 5.36% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.07% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 7.66% | 23.69% | 32.34 | Underutilization | * | |
| | Nonminority Female | 0.00% | 5.48% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 7.66% | 29.17% | 26.27 | Underutilization | * | |
| | Non-M/WBE | 92.34% | 70.83% | 130.36 | Overutilization | | |
| 2021 | Black American | 0.00% | 15.48% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 1.79% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 5.36% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.07% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 23.69% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 5.48% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 29.17% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 70.83% | 141.18 | Overutilization | | |
| Total | Black American | 0.00% | 15.48% | 0.00 | Underutilization | * | p <.05 |
| | Asian American | 3.70% | 1.79% | 207.05 | Overutilization | | 0 |
| | Hispanic American | 0.00% | 5.36% | 0.00 | Underutilization | * | p <.05 |
| | Native American | 0.00% | 1.07% | 0.00 | Underutilization | * | p <.05 |
| | TOTAL MBE | 3.70% | 23.69% | 15.61 | Underutilization | * | p <.05 |
| | Nonminority Female | 0.00% | 5.48% | 0.00 | Underutilization | * | p <.05 |
| | TOTAL M/WBE | 3.70% | 29.17% | 12.68 | Underutilization | * | p <.05 |
| | Non-M/WBE | 96.30% | 70.83% | 135.96 | Overutilization | | #REF! |

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Table F-2
Disparity Results Relevant Market Area Under \$500,000
Distribution of Dollars By Business Ownership and Fiscal Year, A & E (FY 2017-2021)

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | Less than 80% | Statistical Significance |
|-------------|--------------------|--------------------|----------------------------|-----------------|---------------------------------|---------------|--------------------------|
| 2017 | Black American | 0.00% | 9.53% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 5.12% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.86% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.93% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.44% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 6.28% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 23.72% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 0.00% | 76.28% | 0.00 | Underutilization | * | |
| 2018 | Black American | 0.00% | 9.53% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 5.12% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.86% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.93% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.44% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 6.28% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 23.72% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 76.28% | 131.10 | Overutilization | | |
| 2019 | Black American | 0.00% | 9.53% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 5.12% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.86% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.93% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.44% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 6.28% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 23.72% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 76.28% | 131.10 | Overutilization | | |
| 2020 | Black American | 0.00% | 9.53% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 5.12% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.86% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.93% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.44% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 6.28% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 23.72% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 0.00% | 76.28% | 0.00 | Underutilization | * | |
| 2021 | Black American | 0.00% | 9.53% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 5.12% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.86% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.93% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.44% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 6.28% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 23.72% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 76.28% | 131.10 | Overutilization | | |
| Total | Black American | 0.00% | 9.53% | 0.00 | Underutilization | * | p < .05 |
| | Asian American | 0.00% | 5.12% | 0.00 | Underutilization | * | p < .05 |
| | Hispanic American | 0.00% | 1.86% | 0.00 | Underutilization | * | p < .05 |
| | Native American | 0.00% | 0.93% | 0.00 | Underutilization | * | p < .05 |
| | TOTAL MBE | 0.00% | 17.44% | 0.00 | Underutilization | * | p < .05 |
| | Nonminority Female | 0.00% | 6.28% | 0.00 | Underutilization | * | p < .05 |
| | TOTAL M/WBE | 0.00% | 23.72% | 0.00 | Underutilization | * | p < .05 |
| | Non-M/WBE | 100.00% | 76.28% | 131.10 | Overutilization | | |

Table F-3
Disparity Results Relevant Market Area Under \$500,000
Distribution of Dollars By Business Ownership and Fiscal Year, Professional Services (FY
2017-2021)

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | Less than 80% | Statistical Significance |
|-------------|--------------------|--------------------|----------------------------|-----------------|---------------------------------|---------------|--------------------------|
| 2017 | Black American | 0.00% | 20.57% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.00% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.33% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.76% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 24.67% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 1.71% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 26.38% | 0.00 | Underutilization | * | |
| 2018 | Black American | 0.00% | 20.57% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.00% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.33% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.76% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 24.67% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 1.71% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 26.38% | 0.00 | Underutilization | * | |
| 2019 | Black American | 0.00% | 20.57% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.00% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.33% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.76% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 24.67% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 1.71% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 26.38% | 0.00 | Underutilization | * | |
| 2020 | Black American | 0.00% | 20.57% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.00% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.33% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.76% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 24.67% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 1.71% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 26.38% | 0.00 | Underutilization | * | |
| 2021 | Black American | 0.00% | 20.57% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.00% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.33% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.76% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 24.67% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 1.71% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 26.38% | 0.00 | Underutilization | * | |
| Total | Black American | 0.00% | 20.57% | 0.00 | Underutilization | * | p < .05 |
| | Asian American | 0.00% | 2.00% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.33% | 0.00 | Underutilization | * | p < .05 |
| | Native American | 0.00% | 0.76% | 0.00 | Underutilization | * | Small Number |
| | TOTAL MBE | 0.00% | 24.67% | 0.00 | Underutilization | * | p < .05 |
| | Nonminority Female | 0.00% | 1.71% | 0.00 | Underutilization | * | p < .05 |
| | TOTAL M/WBE | 0.00% | 26.38% | 0.00 | Underutilization | * | p < .05 |
| | Non-M/WBE | 100.00% | 73.62% | 135.83 | Overutilization | | |

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Table F-4
Disparity Results Relevant Market Area Under \$500,000
Distribution of Dollars By Business Ownership and Fiscal Year, Other Services (FY 2017-
2021)

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | Less than 80% | Statistical Significance |
|-------------|--------------------|--------------------|----------------------------|-----------------|---------------------------------|---------------|--------------------------|
| 2017 | Black American | 0.00% | 12.77% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.05% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.61% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.43% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.85% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 3.78% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 21.64% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 78.36% | 127.61 | Overutilization | | |
| 2018 | Black American | 0.00% | 12.77% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.05% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.61% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.43% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.85% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 3.78% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 21.64% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 78.36% | 127.61 | Overutilization | | |
| 2019 | Black American | 0.81% | 12.77% | 6.32 | Underutilization | * | |
| | Asian American | 0.00% | 2.05% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.61% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.43% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.81% | 17.85% | 4.52 | Underutilization | * | |
| | Nonminority Female | 0.00% | 3.78% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.81% | 21.64% | 3.73 | Underutilization | * | |
| | Non-M/WBE | 99.19% | 78.36% | 126.58 | Overutilization | | |
| 2020 | Black American | 0.00% | 12.77% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.05% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.61% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.43% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.85% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 3.78% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 21.64% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 78.36% | 127.61 | Overutilization | | |
| 2021 | Black American | 0.00% | 12.77% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.05% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.61% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.43% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.85% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 3.78% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 21.64% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 78.36% | 127.61 | Overutilization | | |
| Total | Black American | 0.34% | 12.77% | 2.64 | Underutilization | * | p < .05 |
| | Asian American | 0.00% | 2.05% | 0.00 | Underutilization | * | p < .05 |
| | Hispanic American | 0.00% | 1.61% | 0.00 | Underutilization | * | p < .05 |
| | Native American | 0.00% | 1.43% | 0.00 | Underutilization | * | p < .05 |
| | TOTAL MBE | 0.34% | 17.85% | 1.89 | Underutilization | * | p < .05 |
| | Nonminority Female | 0.00% | 3.78% | 0.00 | Underutilization | * | p < .05 |
| | TOTAL M/WBE | 0.34% | 21.64% | 1.56 | Underutilization | * | p < .05 |
| | Non-M/WBE | 99.66% | 78.36% | 127.18 | Overutilization | | |

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Table F-5
Disparity Results Relevant Market Area Under \$500,000
Distribution of Dollars By Business Ownership and Fiscal Year, Goods (FY 2017-2021)

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | Less than 80% | Statistical Significance |
|-------------|--------------------|--------------------|----------------------------|-----------------|---------------------------------|---------------|--------------------------|
| 2017 | Black American | 0.00% | 6.95% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 1.16% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 0.45% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.36% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 5.71% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 3.39% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 9.10% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 90.90% | 110.01 | Overutilization | | |
| 2018 | Black American | 0.00% | 6.95% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 1.16% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 0.45% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.36% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 5.71% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 3.39% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 9.10% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 90.90% | 110.01 | Overutilization | | |
| 2019 | Black American | 0.00% | 6.95% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 1.16% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 0.45% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.36% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 5.71% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 3.39% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 9.10% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 90.90% | 110.01 | Overutilization | | |
| 2020 | Black American | 0.00% | 6.95% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 1.16% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 0.45% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.36% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 5.71% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 3.39% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 9.10% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 90.90% | 110.01 | Overutilization | | |
| 2021 | Black American | 0.00% | 6.95% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 1.16% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 0.45% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.36% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 5.71% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 3.39% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 9.10% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 90.90% | 110.01 | Overutilization | | |
| Total | Black American | 0.00% | 6.95% | 0.00 | Underutilization | * | p < .05 |
| | Asian American | 0.00% | 1.16% | 0.00 | Underutilization | * | p < .05 |
| | Hispanic American | 0.00% | 0.45% | 0.00 | Underutilization | * | p < .05 |
| | Native American | 0.00% | 0.36% | 0.00 | Underutilization | * | p < .05 |
| | TOTAL MBE | 0.00% | 5.71% | 0.00 | Underutilization | * | p < .05 |
| | Nonminority Female | 0.00% | 3.39% | 0.00 | Underutilization | * | p < .05 |
| | TOTAL M/WBE | 0.00% | 9.10% | 0.00 | Underutilization | * | p < .05 |
| | Non-M/WBE | 100.00% | 90.90% | 110.01 | Overutilization | | |

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Table F-6
Disparity Results Relevant Market Area Under \$1,000,000
Distribution of Dollars By Business Ownership and Fiscal Year, Construction (FY 2017-2021)

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | Less than 80% | Statistical Significance |
|-------------|--------------------|--------------------|----------------------------|-----------------|---------------------------------|---------------|--------------------------|
| 2017 | Black American | 0.00% | 15.48% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 1.79% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 5.36% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.07% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 23.69% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 5.48% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 29.17% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 70.83% | 141.18 | Overutilization | | |
| 2018 | Black American | 0.00% | 15.48% | 0.00 | Underutilization | * | |
| | Asian American | 1.03% | 1.79% | 57.82 | Underutilization | * | |
| | Hispanic American | 0.00% | 5.36% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.07% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 1.03% | 23.69% | 4.36 | Underutilization | * | |
| | Nonminority Female | 0.00% | 5.48% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 1.03% | 29.17% | 3.54 | Underutilization | * | |
| | Non-M/WBE | 98.97% | 70.83% | 139.72 | Overutilization | | |
| 2019 | Black American | 0.00% | 15.48% | 0.00 | Underutilization | * | |
| | Asian American | 2.95% | 1.79% | 165.10 | Overutilization | | |
| | Hispanic American | 0.00% | 5.36% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.07% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 2.95% | 23.69% | 12.44 | Underutilization | * | |
| | Nonminority Female | 0.00% | 5.48% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 2.95% | 29.17% | 10.11 | Underutilization | * | |
| | Non-M/WBE | 97.05% | 70.83% | 137.01 | Overutilization | | |
| 2020 | Black American | 0.00% | 15.48% | 0.00 | Underutilization | * | |
| | Asian American | 6.09% | 1.79% | 340.99 | Overutilization | | |
| | Hispanic American | 0.00% | 5.36% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.07% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 6.09% | 23.69% | 25.70 | Underutilization | * | |
| | Nonminority Female | 0.00% | 5.48% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 6.09% | 29.17% | 20.88 | Underutilization | * | |
| | Non-M/WBE | 93.91% | 70.83% | 132.58 | Overutilization | | |
| 2021 | Black American | 0.00% | 15.48% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 1.79% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 5.36% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.07% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 23.69% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 5.48% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 29.17% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 70.83% | 141.18 | Overutilization | | |
| Total | Black American | 0.00% | 15.48% | 0.00 | Underutilization | * | p <.05 |
| | Asian American | 2.16% | 1.79% | 121.14 | Overutilization | | |
| | Hispanic American | 0.00% | 5.36% | 0.00 | Underutilization | * | p <.05 |
| | Native American | 0.00% | 1.07% | 0.00 | Underutilization | * | p <.05 |
| | TOTAL MBE | 2.16% | 23.69% | 9.13 | Underutilization | * | p <.05 |
| | Nonminority Female | 0.00% | 5.48% | 0.00 | Underutilization | * | p <.05 |
| | TOTAL M/WBE | 2.16% | 29.17% | 7.42 | Underutilization | * | p <.05 |
| | Non-M/WBE | 97.84% | 70.83% | 138.12 | Overutilization | | |

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F-7

**Disparity Results Relevant Market Area Under \$1,000,000
Distribution of Dollars By Business Ownership and Fiscal Year, A & E (FY 2017-2021)**

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | Less than 80% | Statistical Significance |
|-------------|--------------------|--------------------|----------------------------|-----------------|---------------------------------|---------------|--------------------------|
| 2017 | Black American | 0.00% | 9.53% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 5.12% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.86% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.93% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.44% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 6.28% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 23.72% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 0.00% | 76.28% | 0.00 | Underutilization | * | |
| 2018 | Black American | 0.00% | 9.53% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 5.12% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.86% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.93% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.44% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 6.28% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 23.72% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 76.28% | 131.10 | Overutilization | | |
| 2019 | Black American | 0.00% | 9.53% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 5.12% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.86% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.93% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.44% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 6.28% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 23.72% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 76.28% | 131.10 | Overutilization | | |
| 2020 | Black American | 0.00% | 9.53% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 5.12% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.86% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.93% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.44% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 6.28% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 23.72% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 0.00% | 76.28% | 0.00 | Underutilization | * | |
| 2021 | Black American | 0.00% | 9.53% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 5.12% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.86% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.93% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.44% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 6.28% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 23.72% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 76.28% | 131.10 | Overutilization | | |
| Total | Black American | 0.00% | 9.53% | 0.00 | Underutilization | * | p < .05 |
| | Asian American | 0.00% | 5.12% | 0.00 | Underutilization | * | p < .05 |
| | Hispanic American | 0.00% | 1.86% | 0.00 | Underutilization | * | p < .05 |
| | Native American | 0.00% | 0.93% | 0.00 | Underutilization | * | p < .05 |
| | TOTAL MBE | 0.00% | 17.44% | 0.00 | Underutilization | * | p < .05 |
| | Nonminority Female | 0.00% | 6.28% | 0.00 | Underutilization | * | p < .05 |
| | TOTAL M/WBE | 0.00% | 23.72% | 0.00 | Underutilization | * | p < .05 |
| | Non-M/WBE | 100.00% | 76.28% | 131.10 | Overutilization | | |

Table F-8
Disparity Results Relevant Market Area Under \$1,000,000
Distribution of Dollars By Business Ownership and Fiscal Year, Professional Services (FY 2017-2021)

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | Less than 80% | Statistical Significance |
|-------------|--------------------|--------------------|----------------------------|-----------------|---------------------------------|---------------|--------------------------|
| 2017 | Black American | 0.00% | 20.57% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.00% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.33% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.76% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 24.67% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 1.71% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 26.38% | 0.00 | Underutilization | * | |
| 2018 | Black American | 0.00% | 20.57% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.00% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.33% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.76% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 24.67% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 1.71% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 26.38% | 0.00 | Underutilization | * | |
| 2019 | Black American | 0.00% | 20.57% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.00% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.33% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.76% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 24.67% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 1.71% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 26.38% | 0.00 | Underutilization | * | |
| 2020 | Black American | 0.00% | 20.57% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.00% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.33% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.76% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 24.67% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 1.71% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 26.38% | 0.00 | Underutilization | * | |
| 2021 | Black American | 0.00% | 20.57% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.00% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.33% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.76% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 24.67% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 1.71% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 26.38% | 0.00 | Underutilization | * | |
| Total | Black American | 0.00% | 20.57% | 0.00 | Underutilization | * | p < .05 |
| | Asian American | 0.00% | 2.00% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.33% | 0.00 | Underutilization | * | p < .05 |
| | Native American | 0.00% | 0.76% | 0.00 | Underutilization | * | Small Number |
| | TOTAL MBE | 0.00% | 24.67% | 0.00 | Underutilization | * | p < .05 |
| | Nonminority Female | 0.00% | 1.71% | 0.00 | Underutilization | * | p < .05 |
| | TOTAL M/WBE | 0.00% | 26.38% | 0.00 | Underutilization | * | p < .05 |
| | Non-M/WBE | 100.00% | 73.62% | 135.83 | Overutilization | | |

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Table F-9
Disparity Results Relevant Market Area Under \$1,000,000
Distribution of Dollars By Business Ownership and Fiscal Year, Other Services (FY 2017-
2021)

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | Less than 80% | Statistical Significance |
|-------------|--------------------|--------------------|----------------------------|-----------------|---------------------------------|---------------|--------------------------|
| 2017 | Black American | 0.00% | 12.77% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.05% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.61% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.43% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.85% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 3.78% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 21.64% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 78.36% | 127.61 | Overutilization | | |
| 2018 | Black American | 0.00% | 12.77% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.05% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.61% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.43% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.85% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 3.78% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 21.64% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 78.36% | 127.61 | Overutilization | | |
| 2019 | Black American | 0.81% | 12.77% | 6.32 | Underutilization | * | |
| | Asian American | 0.00% | 2.05% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.61% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.43% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.81% | 17.85% | 4.52 | Underutilization | * | |
| | Nonminority Female | 0.00% | 3.78% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.81% | 21.64% | 3.73 | Underutilization | * | |
| | Non-M/WBE | 99.19% | 78.36% | 126.58 | Overutilization | | |
| 2020 | Black American | 0.00% | 12.77% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.05% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.61% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.43% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.85% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 3.78% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 21.64% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 78.36% | 127.61 | Overutilization | | |
| 2021 | Black American | 0.00% | 12.77% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 2.05% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 1.61% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 1.43% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 17.85% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 3.78% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 21.64% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 78.36% | 127.61 | Overutilization | | |
| Total | Black American | 0.26% | 12.77% | 2.02 | Underutilization | * | p < .05 |
| | Asian American | 0.00% | 2.05% | 0.00 | Underutilization | * | p < .05 |
| | Hispanic American | 0.00% | 1.61% | 0.00 | Underutilization | * | p < .05 |
| | Native American | 0.00% | 1.43% | 0.00 | Underutilization | * | p < .05 |
| | TOTAL MBE | 0.26% | 17.85% | 1.44 | Underutilization | * | p < .05 |
| | Nonminority Female | 0.00% | 3.78% | 0.00 | Underutilization | * | p < .05 |
| | TOTAL M/WBE | 0.26% | 21.64% | 1.19 | Underutilization | * | p < .05 |
| | Non-M/WBE | 99.74% | 78.36% | 127.28 | Overutilization | | |

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Table F-10
Disparity Results Relevant Market Area Under \$1,000,000
Distribution of Dollars By Business Ownership and Fiscal Year, Goods (FY 2017-2021)

| Fiscal Year | Business Ownership | Percent of Dollars | Percent of Available Firms | Disparity Index | Disparate Impact of Utilization | Less than 80% | Statistical Significance |
|-------------|--------------------|--------------------|----------------------------|-----------------|---------------------------------|---------------|--------------------------|
| 2017 | Black American | 0.00% | 6.95% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 1.16% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 0.45% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.36% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 5.71% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 3.39% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 9.10% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 90.90% | 110.01 | Overutilization | | |
| 2018 | Black American | 0.00% | 6.95% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 1.16% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 0.45% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.36% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 5.71% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 3.39% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 9.10% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 90.90% | 110.01 | Overutilization | | |
| 2019 | Black American | 0.00% | 6.95% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 1.16% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 0.45% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.36% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 5.71% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 3.39% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 9.10% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 90.90% | 110.01 | Overutilization | | |
| 2020 | Black American | 0.00% | 6.95% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 1.16% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 0.45% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.36% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 5.71% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 3.39% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 9.10% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 90.90% | 110.01 | Overutilization | | |
| 2021 | Black American | 0.00% | 6.95% | 0.00 | Underutilization | * | |
| | Asian American | 0.00% | 1.16% | 0.00 | Underutilization | * | |
| | Hispanic American | 0.00% | 0.45% | 0.00 | Underutilization | * | |
| | Native American | 0.00% | 0.36% | 0.00 | Underutilization | * | |
| | TOTAL MBE | 0.00% | 5.71% | 0.00 | Underutilization | * | |
| | Nonminority Female | 0.00% | 3.39% | 0.00 | Underutilization | * | |
| | TOTAL M/WBE | 0.00% | 9.10% | 0.00 | Underutilization | * | |
| | Non-M/WBE | 100.00% | 90.90% | 110.01 | Overutilization | | |
| Total | Black American | 0.00% | 6.95% | 0.00 | Underutilization | * | p < .05 |
| | Asian American | 0.00% | 1.16% | 0.00 | Underutilization | * | p < .05 |
| | Hispanic American | 0.00% | 0.45% | 0.00 | Underutilization | * | p < .05 |
| | Native American | 0.00% | 0.36% | 0.00 | Underutilization | * | p < .05 |
| | TOTAL MBE | 0.00% | 5.71% | 0.00 | Underutilization | * | p < .05 |
| | Nonminority Female | 0.00% | 3.39% | 0.00 | Underutilization | * | p < .05 |
| | TOTAL M/WBE | 0.00% | 9.10% | 0.00 | Underutilization | * | p < .05 |
| | Non-M/WBE | 100.00% | 90.90% | 110.01 | Overutilization | | |

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Appendix G

Detailed Regression Analysis

APPENDIX G – DETAILED REGRESSION ANALYSIS

The results of the GSPC disparity analysis provide a framework to rationalize observed disparities in public contracting outcomes/success with Harford County between M/WBEs and non-M/WBEs in the Harford County Market Area. Our regression analysis suggests that any observed disparities in public contracting outcomes between M/WBEs and non-M/WBEs are not explained by differential capacities for public contracting success with Harford County. 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 Harford County, 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 M/WBE and non-M/WBE public contracting capacity. The existence of public contracting success disparities between M/WBEs and non-M/WBEs— particularly when disaggregating by the racial/ethnic/gender status of owners— even after controlling for capacity suggests that relative to non-M/WBEs, M/WBEs face barriers independent of their capacity—or their ability—in securing public contracts and subcontracts with the Harford County.

Perhaps most indicative of racial/ethnic disparities in public contracting outcomes in the Harford County Market Area, our results reveal that the likelihood of M/WBEs that are owned by Hispanic Americans and Women are more likely to have “never” been a prime contractor or subcontractor relative to non-M/WBEs over the time period under consideration in our analysis. This suggests that firms owned by Hispanic Americans and Women face barriers in securing prime contracts and subcontracts from the Harford County. We also find that in the Harford County Market area, firms classified as Minority and owned by African Americans and Other Race submit more prime bids relative to non-M/WBEs. This suggests that for M/WBEs, any public contracting disparities between them and non-M/WBEs cannot be explain by differences in prime bid submissions. With respect to prime contracting awards, relative to non-M/WBEs, we find that firms certified as Minority, and owned by African Americans and Women are less likely to secure prime contracts with Harford County. Coupled with our findings of perceived private sector discrimination and informal contracting network exclusion being higher for some M/WBEs, our results are also consistent with observed disparities in securing prime contracts and subcontracts with Harford County being driven, at least in part, by discrimination and public contracting network exclusion against M/WBEs that undermines their ability to secure prime contracts and subcontracts with the Harford County.

A. Statistical and Econometric Framework

Methodologically, the GSPC statistical and econometric analysis of possible M/WBE public contracting disparities with the Harford County utilizes a Mixed Effect Categorical Regression Model (MCRM) framework.³⁹ As the covariates measuring public contracting activity/outcomes and and other respondent characteristics in Table 1 are categorical responses to questionnaire items (e.g. public contracting bid ranges, yes, no), a MCRM views the categories as latent variables with likelihood thresholds that are

³⁹ 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.

conditioned on other covariates. In the case where there are more than two categories and the succession of categories have a natural ranking, a MCRM 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 MCRM reduces to a Mixed Effect Binary Regression Model (MBRM).⁴⁰

For all the MCRM/MBRM 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.⁴¹ When the odds ratio is greater (less) than unity for a parameter, the measured characteristic of interest to the outcome of interest has the effect of increasing (decreasing) the likelihood of the outcome under consideration relative to nonminority owned firms. 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 $\leq .05$, which we highlight in bold for all parameter estimates.

GSPC reports/discusses in all instances, the effects of the firm minority status indicators on the outcome of interest. The other regressors, 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, and Women owned firms (M/WBEs) fare worse relative to Non-M/WBEs for the outcomes under consideration.

⁴⁰ More formally, if the latent realization of an outcome is Y_i^* , ranging from $-\infty$ to ∞ , 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, β is a vector of coefficients measuring the effects of particular covariates on the realization of Y_i^* , and ε_i is a random error. For categorical and ordinal outcomes $m = 1 \dots J$, $Y_i = m$ if $\tau_{m-1} \leq Y_i^* < \tau_m$, where the τ_i are thresholds for the particular realizations of $Y_i^* = m$. Conditional on \mathbf{X} the likelihood/probability that Y_i takes on a particular realization is $Pr(Y_i = m | \mathbf{X}) = \Phi(\tau_m - \mathbf{X}\beta) - \Phi(\tau_{m-1} - \mathbf{X}\beta)$, where Φ is the cumulative density function of ε . 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. Given the possibility of biased parameter estimates due to omitted variables, an intercept for each primary line of business firm grouping is incorporated in the specification to allow for unobserved heterogeneity to be captured in clustered effects. These estimates exploit within group variation, and conditioned in a Fixed manner across the groupings, all unobserved heterogeneity. See: Bram Lancee and Oriane Sarrasin. 2015. Educated Preferences or Selection Effects? A Longitudinal Analysis of the Impact of Educational Attainment on Attitudes Towards Immigrants," *European Sociological Review*, 31: pp. 490 - 501.

⁴¹ 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.

The regression strategy also reports on two different specifications of the outcome of interest. The first one includes a broad classification of non-white firms as measured by whether or not they are certified and/or deemed as M/WBEs. Each category in this regression approach will have overlap of firms owned by particular racial/ethnic groups and Women. As this overlap might mask differences in outcomes for particular non-white minorities and Women, the second specification disaggregates the broad categories by consideration categorization by specific racial/ethnic group and gender (e.g. Asian Americans, African American Americans, Hispanic Americans, Women). The exposition and discussion of the results are, in general, couched in terms of whether the outcome of interest suggests that broad M/WBE and race/ethnicity/gender characteristics of a firm is a possible driver or not of public contracting and other relevant disparities in the Harford County Market Area. In particular, GSPC does not necessarily exposit upon the statistical insignificance of M/WBE status in a regression if it is not uniform across all the various categories, as the absence of such a uniformity suggests that for particular M/WBEs, or on average, the outcome of interest is a driver of public contracting disparities in the Harford County market area, and can be at least partially explained by M/WBE status.

As nonresponse probabilities in the GSPC survey are unknown, GSPC estimates all parameters from the specifications with standard errors clustered on the firm's primary line of business classification to minimize/eliminate the bias that can result from the sample being unrepresentative of the population of interest due to nonresponse and clustered selection into MWDBE treatment.⁴² To the extent that clustered standard errors enable consistent estimation of parameters given misspecification that could result from the omission of sampling and nonresponse weights, parameter estimates with clustered standard errors effects can mitigate/eliminate the bias caused by a sample that may not be fully representative of the population of interest.⁴³

B. GSPC Survey of Business Owners Data

The Harford County disparity analysis is based on survey data compiled by GSPC, and constitutes a sample of firms from the bidder and vendor lists provided by Harford County. The GSPC survey was a questionnaire that captured data on firm and individual owner characteristics in the Harford County Market Area. The questionnaire was sent to certified firms, prequalified firms, awardees, and subcontractors. Table 1 reports, for the 287 survey responses captured, a statistical summary of the covariates that are relevant to the GSPC regression-based analysis of outcomes relevant to, and informative of, public procurement disparities in the Harford County Market Area.

⁴² See: Abadie, Alberto, Susan Athey, Guido W. Imbens, and Jeffrey Wooldridge. *When should you adjust standard errors for clustering?* Working Paper w24003. National Bureau of Economic Research, 2017, Cambridge, M

⁴³ See: Abadie, Alberto, Susan Athey, Guido W. Imbens, and Jeffrey Wooldridge. *When should you adjust standard errors for clustering?* Working Paperw24003. National Bureau of Economic Research, 2017, Cambridge, M

**Table 1
Covariate Summary**

| Covariate | Description | Mean | Standard Deviation | Number of Observations |
|--|---|------|-----------------------|---------------------------|
| Firm entered market within past five years | <i>Binary Variable:</i> 1 = yes | .216 | .413 | 231 |
| Number of times denied a commercial bank loan | <i>Ordinal Variable:</i> 1 = 0 2 = 1 – 10 3 = 11 – 25 4 = 26 – 50 5 = 51 – 100 6 = Over 100 | .948 | .616 | 231 |
| Number of prime bids submitted on the Harford County projects | <i>Ordinal Variable:</i> 1 = 0 2 = 1 – 10 3 = 11 – 25 4 = 26 – 50 5 = 51 – 100 6 = Over 100 | 1.15 | .733 | 231 |
| Number of Harford County prime contracts awarded between 7/1/16 - 6/30/21 | <i>Ordinal Variable:</i> 1 = 0 2 = 1 – 10 3 = 11 – 25 4 = 26 – 50 5 = 51 – 100 6 = Over 100 | 1.04 | .603 | 231 |
| Number of Harford County subcontracts awarded between 7/1/16 - 6/30/21 | <i>Ordinal Variable:</i> 1 = 0 2 = 1 – 10 3 = 11 – 25 4 = 26 – 50 5 = 51 – 100 6 = Over 100 | 1.31 | .270 | 231 |
| Did not serve as a contractor or subcontractor on the Harford County projects between 7/1/16 – 6/30/21 | <i>Binary Variable:</i> 1 = Yes | .351 | .478 | 231 |
| Firm has experienced discrimination at the Harford County | <i>Binary Variable</i> 1 = Yes | .048 | .213 | 231 |
| Firm owner believes informal networks enables business with the Harford County | <i>Binary Variable</i> 1 = Yes | .489 | .501 | 231 |
| Owner has more than 20 years of experience | <i>Binary Variable</i> 1 = Yes | .745 | .437 | 231 |
| Firm has more than 10 employees | <i>Binary Variable</i> 1 = Yes | .329 | .471 | 231 |
| Firm owner has a baccalaureate/post-graduate | <i>Binary Variable:</i> | .351 | .478 | 231 |

| | | | | |
|--|------------------------------------|------|------|-----|
| degree | 1 = Yes | | | |
| Firm gross revenue greater than \$1,500,000 | <i>Binary Variable:</i> 1 = Yes | .199 | .400 | 231 |
| Firm bonding limit greater than \$1,500,000 | <i>Binary Variable:</i> 1 = Yes | .788 | .410 | 231 |
| Financing is a Barrier to Submitting Bids and Securing Contracts From Harford County | <i>Binary Variable:</i> 1 = Yes | .922 | .269 | 231 |
| Firm is in the construction sector | <i>Binary Variable:</i> 1 = Yes | .169 | .375 | 231 |
| Firm is registered to do business with the Harford County | <i>Binary Variable:</i> 1 = Yes | .571 | .496 | 231 |
| Firm is willing and able to do business with the Harford County as a prime contractor | <i>Binary Variable:</i> 1 = Yes | .831 | .375 | 231 |
| Firm is willing and able to do business with the Harford County as a subcontractor | <i>Binary Variable:</i> 1 = Yes | .866 | .342 | 231 |
| Firm is a certified Minority Business Enterprise | <i>Binary Variable:</i> 1 = Yes | .351 | .478 | 231 |
| Firm is a certified Woman business enterprise | <i>Binary Variable:</i> 1 = Yes | .247 | .432 | 231 |
| Firm is a certified Small Business Enterprise | <i>Binary Variable:</i> 1 = Yes | .476 | .501 | 231 |
| Firm is a certified Disadvantaged Business Enterprise | <i>Binary Variable:</i> 1 = Yes | .268 | .444 | 231 |
| Majority Firm Owner is African American | <i>Binary Variable:</i> 1 = Yes | .290 | .455 | 231 |
| Majority Firm Owner is Hispanic American | <i>Binary Variable:</i> 1 = Yes | .048 | .213 | 231 |
| Majority Firm Owner is Asian/Pacific Islander | <i>Binary Variable:</i> 1 = Yes | .030 | .172 | 231 |
| Majority Firm Owner is Other Race | <i>Binary Variable:</i> 1 = Yes | .061 | .239 | 231 |
| Majority Firm Owner is a Woman | <i>Binary Variable:</i> 1 = Yes | .550 | .499 | 231 |

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C. M/WBE Status and Firm Entry in the Harford County Market Area

To determine if M/WBE status is a barrier to the formation of new businesses in the Harford County Market Area, Tables 2 - 3 report, for each of the distinct M/WBEs and owner self-reported race/ethnicity in the GSPC sample, the estimated parameters of a Mixed Effect Logit BRM with a binary variable for a firm establishing itself between within the past 5 years 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- R^2 is reported.⁴⁴

The parameter estimates in Tables 2 suggest that relative to White-owned firms, M/WBEs in the Harford County Market Area are neither more or less likely to be new firms. As the excluded group is non-M/WBEs, to the extent that market experience is an important determinant of and correlated with success in bidding and securing public contracts, this suggests that for SWMDBEs, relative inexperience in the market cannot explain any disparities in public contracting between them and non-M/WBEs in the Harford County Market Area, as tenure in the market also implies similar knowledge/experience about bidding and securing public contracts.

When disaggregated by ethnicity/gender/race, the parameter estimates Table 3 suggest relative to non-M/WBEs, firms owned by bi/multi-racials are more likely to be new firms. This suggests that for these type of SWMDBEs, relative inexperience in the market may at least in part explain any disparities in public contracting between them and non-M/WBEs in the Harford County Market Area, as tenure in the market also implies similar knowledge/experience about bidding and securing public contracts.

⁴⁴ Pseudo- R^2 is not to be interpreted as the R^2 in standard Ordinary Least Squares (OLS) estimation, as OLS proceeds by minimizing variance to get parameter estimates. Logit specifications are likelihood-based, and higher values of Pseudo- R^2 indicate that the specified model is an increasingly better alternative to a null model with only an intercept.

**Table 2: Mixed Effect Logit Parameter Estimates (Odds Ratio):
M/WBE Status and Firm Entry in the Harford County Market Area**

| | Coefficient | P-value |
|--|-------------|---------|
| <i>Regressand:</i> Firm entered market within past 5 years: (Binary) | | |
| Firm owner has more than 20 years experience: (Binary) | 0.1775 | 0.0000 |
| Firm has more than 10 employees: (Binary) | 1.0444 | 0.9310 |
| Firm owner has a baccalaureate degree: (Binary) | 0.6119 | 0.0304 |
| Firm gross revenue greater than 1.5 million: (Binary) | 0.5835 | 0.3978 |
| Firm Bonding limit greater than 1.5 million: (Binary) | 0.8241 | 0.6549 |
| Financing is a barrier for securing Harford Co. projects: (Binary) | 0.5656 | 0.3534 |
| Firm is in the construction sector: (Binary) | 0.4909 | 0.0001 |
| Firm is registered to do business with Harford Co.: (Binary) | 0.8459 | 0.0092 |
| Firm is a certified minority business enterprise: (Binary) | 1.0113 | 0.9824 |
| Firm is a certified woman enterprise: (Binary) | 1.1876 | 0.7026 |
| Firm is a certified disadvantaged business enterprise: (Binary) | 2.0135 | 0.2010 |
| Firm is a certified small business enterprise: (Binary) | 1.4207 | 0.4330 |
| Number of Observations | 231 | |
| Pseudo R ² | .1783 | |

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**Table 3: Mixed Effect Logit Parameter Estimates (Odds Ratio)
Owner Racial/Ethnic Status and Firm Entry in the Harford County Market Area**

| | Coefficient | P-value |
|--|-------------|---------|
| <i>Regressand:</i> Firm entered market within past 5 years: (Binary) | | |
| Firm owner has more than 20 years experience: (Binary) | 0.1816 | 0.0000 |
| Firm has more than 10 employees: (Binary) | 0.7751 | 0.0230 |
| Firm owner has a baccalaureate degree: (Binary) | 0.6411 | 0.2851 |
| Firm gross revenue greater than 1.5 million: (Binary) | 0.7637 | 0.6760 |
| Firm Bonding limit greater than 1.5 million: (Binary) | 0.9141 | 0.0404 |
| Financing is a barrier for securing Harford Co. projects: (Binary) | 0.4483 | 0.1743 |
| Firm is in the construction sector: (Binary) | 0.5313 | 0.2539 |
| Firm is registered to do business with Harford Co.: (Binary) | 1.1200 | 0.7736 |
| Firm is African American-owned: (Binary) | 1.6124 | 0.0617 |
| Firm is Hispanic American-owned: (Binary) | 1.7845 | 0.4716 |
| Firm is Asian American-owned: (Binary) | 0.9336 | 0.9539 |
| Firm is bi/multiracial-owned: (Binary) | 9.6033 | 0.0413 |
| Firm is other race-owned: (Binary) | 1.5142 | 0.5777 |
| Firm is woman-owned: (Binary) | 1.2571 | 0.5469 |
| Number of Observations | 231 | |
| Pseudo R ² | .1832 | |

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D. M/WBE Status and Number of Prime Bid Submissions In the Harford County Market Area

One reason disparities in public contracting outcomes between M/WBEs and non-M/WBEs could exist is that relative to non-M/WBEs, M/WBEs may be less interested in, and/or less likely to submit bids for public contracts. To determine if this is the case in the Harford County Market Area, Tables 4 - 5 report Ordinal Logit parameter estimates of a CRM with the number of prime contracting bids submitted by a firm to the Harford County between 2013 - 2019 as the dependent variable, for each of the distinct M/WBEs in the GSPC sample.

The parameter estimates in Table 4 suggest that relative to non-M/WBEs, the prime bid submission rates of M/WBEs is no different. This suggests that any public contracting disparities between M/WBEs certified non-M/WBEs and certified non-M/WBEs cannot be explained differential prime bid submission rates.

When disaggregating by race/ethnicity/gender, the results in Table 5 a suggest that relative to non-M/WBEs, the prime bid submission rate of firms owned by Asians and Bi-multiracials is lower, as the estimated odds ratio is less than unity and significant in these instances. This suggests that any public contracting disparities between firms owned by Asian Americans and Bi-multiracials and non-M/WBEs can be explained by their prime bid submission rates.

**Table 4: Mixed Effect Ordinal Logit Parameter Estimates (Odds Ratio)
M/WBE Status and Number of Prime Bid Submissions
In the Harford County Market Area**

| | Coefficient | P-value |
|--|-------------|---------|
| <i>Regressand:</i> Number of prime bids on Harford Co. projects: (Ordinal) | | |
| Firm owner has more than 20 years experience: (Binary) | 1.5749 | 0.0054 |
| Firm has more than 10 employees: (Binary) | 1.3359 | 0.0446 |
| Firm owner has a baccalaureate degree: (Binary) | 1.0214 | 0.9463 |
| Firm gross revenue greater than 1.5 million: (Binary) | 1.1725 | 0.0171 |
| Firm Bonding limit greater than 1.5 million: (Binary) | 1.0735 | 0.8514 |
| Financing is a barrier for securing Harford Co. projects: (Binary) | 1.2537 | 0.6860 |
| Firm is in the construction sector: (Binary) | 1.8481 | 0.0180 |
| Firm is registered to do business with Harford Co.: (Binary) | 1.7662 | 0.1042 |
| Firm is a willing/able prime contractor for Harford Co.: (Binary) | 3.8937 | 0.0150 |
| Firm is a willing/able subcontractor for Harford Co.: (Binary) | 0.8668 | 0.8148 |
| Firm is a certified minority business enterprise: (Binary) | 0.6703 | 0.3246 |
| Firm is a certified woman enterprise: (Binary) | 0.9259 | 0.8372 |
| Firm is a certified disadvantaged business enterprise: (Binary) | 1.3529 | 0.5010 |
| Firm is a certified small business enterprise: (Binary) | 1.2374 | 0.5480 |
| Number of Observations | 231 | |
| Pseudo R ² | .1034 | |

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**Table 5: Mixed Effect Ordinal Logit Parameter Estimates (Odds Ratio)
M/WBE Status and Number of Prime Bid Submissions
In the Harford County Market Area**

| | Coefficient | P-value |
|--|-------------|---------|
| <i>Regressand:</i> Number of prime bids on Harford Co. projects: (Ordinal) | | |
| Firm owner has more than 20 years experience: (Binary) | 1.5561 | 0.2289 |
| Firm has more than 10 employees: (Binary) | 1.3948 | 0.3833 |
| Firm owner has a baccalaureate degree: (Binary) | 1.1039 | 0.0371 |
| Firm gross revenue greater than 1.5 million: (Binary) | 1.0208 | 0.9630 |
| Firm Bonding limit greater than 1.5 million: (Binary) | 1.0197 | 0.9591 |
| Financing is a barrier for securing Harford Co. projects: (Binary) | 1.2082 | 0.0428 |
| Firm is in the construction sector: (Binary) | 1.6420 | 0.2146 |
| Firm is registered to do business with Harford Co.: (Binary) | 2.0102 | 0.0327 |
| Firm is a willing/able prime contractor for Harford Co.: (Binary) | 3.4539 | 0.0309 |
| Firm is a willing/able subcontractor for Harford Co.: (Binary) | 1.0420 | 0.9478 |
| Firm is African American-owned: (Binary) | 0.7664 | 0.4678 |
| Firm is Hispanic American-owned: (Binary) | 1.6535 | 0.4761 |
| Firm is Asian American-owned: (Binary) | 0.1862 | 0.0431 |
| Firm is bi/multiracial-owned: (Binary) | 0.0850 | 0.0286 |
| Firm is other race-owned: (Binary) | 0.5025 | 0.3123 |
| Firm is woman-owned: (Binary) | 0.5950 | 0.0906 |
| Number of Observations | 231 | |
| Pseudo R ² | .1241 | |

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E. M/WBE Status and Number of Prime Contracts Awarded In the Harford County Market Area

To the extent that frequency of public contract bids reflects past experience as a prime contractor, M/WBEs can potentially become frequent prime contract bidders by actually gaining experience as successful prime contractors. As such, the frequency of prime bids by M/WBEs 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 Harford County Market Area, Tables 6 - 7 report Ordinal Logit BRM parameter estimates where the dependent variable is the number of Harford County prime contracts awarded to the firm since December 2020.

The parameter estimates in Table 6 suggest that relative to non-M/WBEs, firms certified as Minority are awarded fewer prime contracts, as the estimated odds ratio is less than unity and statistically significant in this instance. When disaggregating by race/ethnicity/gender the parameter estimates in Table 6 suggest that relative to non-M/WBEs, firms owned by African Americans, Asian Americans, Bi-multiracials, Other Race and Women are awarded fewer prime contracts, as the 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 6 – 7 suggest that any contracting disparities between non-M/WBEs and those certified as Minority and owned by African Americans, Asian Americans, Bi-multiracials, Other Race and Women can possibly be explained by past and discriminatory constraints on these type of M/WBEs successfully winning prior prime contracts from the Harford County—which could translate into future capacity to secure prime contracts.

**Table 6: Mixed Effect Ordinal Logit Parameter Estimates (Odds Ratio)
M/WBE Status and Number of Prime Contracts Awarded
In the Harford County Market Area**

| | Coefficient | P-value |
|--|-------------|---------|
| <i>Regressand: # of Harford Co. prime contracts awarded since July 2016: (Ordinal)</i> | | |
| Firm owner has more than 20 years experience: (Binary) | 1.2119 | 0.5153 |
| Firm has more than 10 employees: (Binary) | 0.8055 | 0.7125 |
| Firm owner has a baccalaureate degree: (Binary) | 0.8077 | 0.3346 |
| Firm gross revenue greater than 1.5 million: (Binary) | 0.9015 | 0.8373 |
| Firm Bonding limit greater than 1.5 million: (Binary) | 1.0314 | 0.0362 |
| Financing is a barrier for securing Harford Co. projects: (Binary) | 1.6119 | 0.0312 |
| Firm is in the construction sector: (Binary) | 2.3123 | 0.0000 |
| Firm is registered to do business with Harford Co.: (Binary) | 1.5382 | 0.3559 |
| Firm is a willing/able prime contractor for Harford Co.: (Binary) | 4.3685 | 0.0000 |
| Firm is a certified minority business enterprise: (Binary) | 0.3722 | 0.0061 |
| Firm is a certified woman enterprise: (Binary) | 0.9780 | 0.8885 |
| Firm is a certified disadvantaged business enterprise: (Binary) | 0.9360 | 0.8809 |
| Firm is a certified small business enterprise: (Binary) | 1.5965 | 0.2663 |
| Number of Observations | 231 | |
| Pseudo R^2 | .0932 | |

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**Table 7: Mixed Effect Ordinal Logit Parameter Estimates (Odds Ratio)
M/WBE Status and Number of Prime Contracts Awarded
In the Harford County Market Area**

| | Coefficient | P-value |
|---|-------------|---------|
| <i>Regressand</i> : # of Harford Co. prime contracts awarded since July 2016: (Ordinal) | | |
| Firm owner has more than 20 years experience: (Binary) | 1.0268 | 0.9054 |
| Firm has more than 10 employees: (Binary) | 0.9334 | 0.8770 |
| Firm owner has a baccalaureate degree: (Binary) | 0.7564 | 0.0467 |
| Firm gross revenue greater than 1.5 million: (Binary) | 0.6860 | 0.2702 |
| Firm Bonding limit greater than 1.5 million: (Binary) | 0.8514 | 0.6664 |
| Financing is a barrier for securing Harford Co. projects: (Binary) | 1.5796 | 0.3254 |
| Firm is in the construction sector: (Binary) | 1.8002 | 0.0008 |
| Firm is registered to do business with Harford Co.: (Binary) | 1.6246 | 0.0241 |
| Firm is a willing/able prime contractor for Harford Co.: (Binary) | 4.9244 | 0.0000 |
| Firm is African American-owned: (Binary) | 0.3464 | 0.0000 |
| Firm is Hispanic American-owned: (Binary) | 0.4370 | 0.1293 |
| Firm is Asian American-owned: (Binary) | 0.1876 | 0.0018 |
| Firm is bi/multiracial-owned: (Binary) | 0.0767 | 0.0000 |
| Firm is other race-owned: (Binary) | 0.1427 | 0.0000 |
| Firm is Woman-owned: (Binary) | 0.3105 | 0.0030 |
| Number of Observations | 231 | |
| Pseudo R ² | .1241 | |

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F. M/WBE Status and Number of Subcontracts Awarded In the Harford County 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 Harford County contracts, M/WBEs 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 M/WBEs 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 Harford County Market Area, Tables 8 - 9 report Ordinal Logit BRM parameter estimates where the dependent variable is the number of Harford County subcontracts awarded to the firm between 2014 – 2019.

The parameter estimates in Table 8 suggest that relative to non-M/WBEs, the odds of having a subcontract are no different for M/WBEs, as none of the odds ratios are statistically significant.. When disaggregating by the race/ethnicity/gender of firm owners in Table 9, relative to non-M/WBEs, the estimated odds ratio suggest that firms owned by Other Race and Women received fewer Harford County subcontracts. To the extent that success in public contracting is proportional to having gained experience on prior subcontracts, the parameter estimates in Tables 8– 9 suggest that any contracting disparities between non-M/WBEs and firms owned by Other Race and Women, can possibly be explained by inexperience these type of firms have with respect to having received fewer opportunities on Harford County public subcontracts.

**Table 8: Mixed Effect Ordinal Logit Parameter Estimates (Odds Ratio)
M/WBE Status and Number of Subcontracts Awarded
In the Harford County Market Area**

| | Coefficient | P-value |
|--|-------------|---------|
| <i>Regressand</i> : # of Harford Co. subcontracts awarded since July 2016: (Ordinal) | | |
| Firm owner has more than 20 years experience: (Binary) | 0.4772 | 0.0012 |
| Firm has more than 10 employees: (Binary) | 0.8585 | 0.7927 |
| Firm owner has a baccalaureate degree: (Binary) | 0.7255 | 0.2539 |
| Firm gross revenue greater than 1.5 million: (Binary) | 0.5547 | 0.0014 |
| Firm Bonding limit greater than 1.5 million: (Binary) | 0.7899 | 0.5624 |
| Financing is a barrier for securing Harford Co. projects: (Binary) | 1.1725 | 0.5601 |
| Firm is in the construction sector: (Binary) | 1.1779 | 0.0228 |
| Firm is registered to do business with Harford Co.: (Binary) | 1.4244 | 0.3817 |
| Firm is a willing/able subcontractor for Harford Co.: (Binary) | 1.6057 | 0.0000 |
| Firm is a certified minority business enterprise: (Binary) | 0.8881 | 0.5200 |
| Firm is a certified woman enterprise: (Binary) | 0.8003 | 0.3787 |
| Firm is a certified disadvantaged business enterprise: (Binary) | 1.3194 | 0.3842 |
| Firm is a certified small business enterprise: (Binary) | 1.4068 | 0.0939 |
| Number of Observations | 231 | |
| Pseudo R^2 | .0653 | |

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**Table 9: Mixed Effect Ordinal Logit Parameter Estimates (Odds Ratio)
Owner Racial/Ethnic Status and Number of Subcontracts Awarded
In the Harford County Market Area**

| | Coefficient | P-value |
|---|-------------|---------|
| <i>Regressand:</i> # of Harford Co. subcontracts awarded since July 2016: (Ordinal) | | |
| Firm owner has more than 20 years experience: (Binary) | 0.4768 | 0.0026 |
| Firm has more than 10 employees: (Binary) | 0.9350 | 0.8874 |
| Firm owner has a baccalaureate degree: (Binary) | 0.7042 | 0.1630 |
| Firm gross revenue greater than 1.5 million: (Binary) | 0.5507 | 0.0091 |
| Firm Bonding limit greater than 1.5 million: (Binary) | 0.7856 | 0.4931 |
| Financing is a barrier for securing Harford Co. projects: (Binary) | 1.1672 | 0.5418 |
| Firm is in the construction sector: (Binary) | 1.0890 | 0.5280 |
| Firm is registered to do business with Harford Co.: (Binary) | 1.3969 | 0.1578 |
| Firm is a willing/able subcontractor for Harford Co.: (Binary) | 1.8734 | 0.0000 |
| Firm is African American-owned: (Binary) | 1.7005 | 0.0000 |
| Firm is Hispanic American-owned: (Binary) | 1.1668 | 0.6256 |
| Firm is Asian American-owned: (Binary) | 0.8968 | 0.6512 |
| Firm is bi/multiracial-owned: (Binary) | 0.5911 | 0.4284 |
| Firm is other race-owned: (Binary) | 0.2492 | 0.0006 |
| Firm is Woman-owned: (Binary) | 0.5043 | 0.0147 |
| Number of Observations | 231 | |
| Pseudo R ² | .1247 | |

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G. M/WBE Status and Never Serving as Contractor/Subcontractor In the Harford County Market Area

As the results in Tables 10 - 11 reflect only the effect of M/WBE status on the number of Harford County contracts and subcontracts, it may obscure the effects of, and the distribution of, zero outcomes—never having secured a Harford County contract or subcontract. Tables 10 – 11 report Logit parameter estimates where the dependent variable is whether the firm “never” served since December 2020 as a prime contractor or subcontractor for the Harford County.

The parameter estimates in Table 10 suggest that relative to non-M/WBEs, M/WBEs are neither more or less likely to have never secured a prime or subcontract with Harford County. Disaggregating by race/ethnicity/gender, the results in Table 11 suggest the relative to non-M/WBEs, firms owned by African Americans and Women are more likely to have never served as a prime or subcontractor with the Harford County. To the extent that success in public contracting is proportional to having prior prime contracts or subcontracts, the parameter estimates in Tables 10 – 11 suggest that any contracting disparities between non-M/WBEs and firms owned by African Americans and Women can possibly be explained by past barriers these type of firms faced in securing prime contracts and subcontracts with the Harford County.

**Table 10: Mixed Effect Logit Parameter Estimates (Odds Ratio)
M/WBE Status and Never Serving as Contractor/Subcontractor
In the Harford County Market Area**

| | Coefficient | P-value |
|---|-------------|---------|
| <i>Regressand:</i> Served as neither contractor/subcontractor on contract since July 2016: (Binary) | | |
| Firm owner has more than 20 years experience: (Binary) | 0.8180 | 0.5839 |
| Firm has more than 10 employees: (Binary) | 0.5520 | 0.0000 |
| Firm owner has a baccalaureate degree: (Binary) | 0.4926 | 0.0020 |
| Firm gross revenue greater than 1.5 million: (Binary) | 2.3103 | 0.0168 |
| Firm Bonding limit greater than 1.5 million: (Binary) | 1.1643 | 0.6927 |
| Financing is a barrier for securing Harford Co. projects: (Binary) | 0.5491 | 0.2870 |
| Firm is in the construction sector: (Binary) | 0.1742 | 0.0000 |
| Firm is registered to do business with Harford Co.: (Binary) | 0.1373 | 0.0000 |
| Firm is a willing/able prime contractor for Harford Co.: (Binary) | 0.1223 | 0.0001 |
| Firm is a certified minority business enterprise: (Binary) | 1.2820 | 0.6096 |
| Firm is a certified woman enterprise: (Binary) | 1.0014 | 0.9956 |
| Firm is a certified disadvantaged business enterprise: (Binary) | 0.4190 | 0.0682 |
| Firm is a certified small business enterprise: (Binary) | 1.1118 | 0.7341 |
| Number of Observations | 231 | |
| Pseudo R^2 | .1431 | |

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**Table 11: Mixed Effect Logit Parameter Estimates (Odds Ratio)
M/WBE Status and Never Serving as Contractor/Subcontractor
In the Harford County Market Area**

| | Coefficient | P-value |
|---|-------------|---------|
| <i>Regressand:</i> Served as neither contractor/subcontractor on contract since July 2016: (Binary) | | |
| Firm owner has more than 20 years experience: (Binary) | 0.9472 | 0.8699 |
| Firm has more than 10 employees: (Binary) | 0.6225 | 0.0867 |
| Firm owner has a baccalaureate degree: (Binary) | 0.5152 | 0.0085 |
| Firm gross revenue greater than 1.5 million: (Binary) | 2.1878 | 0.0424 |
| Firm Bonding limit greater than 1.5 million: (Binary) | 1.1418 | 0.7370 |
| Financing is a barrier for securing Harford Co. projects: (Binary) | 0.6892 | 0.5959 |
| Firm is in the construction sector: (Binary) | 0.1893 | 0.0000 |
| Firm is registered to do business with Harford Co.: (Binary) | 0.1058 | 0.0000 |
| Firm is a willing/able prime contractor for Harford Co.: (Binary) | 0.1262 | 0.0005 |
| Firm is African American-owned: (Binary) | 1.4715 | 0.0321 |
| Firm is Hispanic American-owned: (Binary) | 1.0109 | 0.9905 |
| Firm is Asian American-owned: (Binary) | 0.6756 | 0.7494 |
| Firm is bi/multiracial-owned: (Binary) | 0.8315 | 0.0000 |
| Firm is other race-owned: (Binary) | 1.2890 | 0.8286 |
| Firm is woman-owned: (Binary) | 2.0513 | 0.0005 |
| Number of Observations | 231 | |
| Pseudo R ² | .1247 | |

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H. M/WBE Status and Perceived Discrimination at the Harford County

Disparate contracting and subcontracting outcomes between M/WBEs and non-M/WBEs could reflect, at least in part, the effects of discrimination against them by the Harford County, which conditions their entry into the market, and opportunities for success at the Harford County.⁴⁵ In Tables 12 – 13, we report Logit parameter estimates of the the effects of M/WBE status on having experienced discrimination—in particular the perception of having experienced discrimination at the Harford County.

⁴⁵ For the effects that discrimination can have upon the entry and performance of minority-owned firms. See: Borjas, George J., and Stephen G. Bronars. 1989. "Consumer Discrimination and Self-employment." *Journal of Political Economy*, 97: pp. 581-605.

To the extent that perceptions of discrimination correlate positively with actual discrimination at the Harford County, the odds ratio estimates in Table 12 with statistical significance suggest that relative to non-M/WBEs, certified SMWBES are neither more or less likely to have experienced discrimination at Harford County. When disaggregated by the race/ethnicity/gender of firm owners, the odds ratio estimates with statistical significance in Table 12 suggest that relative to non-M/WBEs, firms owned by African Americans and Other Race experienced discrimination at Harford County. This suggests that, at least for M/WBEs owned by African Americans and Other Race, Harford County contracting disparities between them and non-M/WBEs may at least in part explained by discrimination at Harford County that undermines their chances at successfully winning prime contracts.

**Table 12: Mixed Effect Logit Parameter Estimates (Odds Ratio)
M/WBE Status and Perceived Discrimination at Harford County**

| | Coefficient | P-value |
|--|-------------|---------|
| <i>Regressand:</i> Experienced perceived discrimination at Harford Co.: (Binary) | | |
| Firm owner has more than 20 years experience: (Binary) | 0.6241 | 0.5506 |
| Firm has more than 10 employees: (Binary) | 1.1582 | 0.7854 |
| Firm owner has a baccalaureate degree: (Binary) | 1.1661 | 0.0176 |
| Firm gross revenue greater than 1.5 million: (Binary) | 0.4546 | 0.5240 |
| Firm Bonding limit greater than 1.5 million: (Binary) | 1.0590 | 0.8576 |
| Financing is a barrier for securing Harford Co. projects: (Binary) | 0.8465 | 0.8982 |
| Firm is in the construction sector: (Binary) | 2.0502 | 0.0065 |
| Firm is registered to do business with Harford Co.: (Binary) | 0.3748 | 0.0463 |
| Firm is a willing/able prime contractor for Harford Co.: (Binary) | 0.8248 | 0.8717 |
| Firm is a certified minority business enterprise: (Binary) | 3.4408 | 0.2929 |
| Firm is a certified woman enterprise: (Binary) | 1.0469 | 0.9477 |
| Firm is a certified disadvantaged business enterprise: (Binary) | 0.9370 | 0.8405 |
| Firm is a certified small business enterprise: (Binary) | 1.0718 | 0.9384 |
| Number of Observations | 231 | |
| Pseudo R^2 | .0462 | |

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**Table 13: Mixed Effect Logit Parameter Estimates (Odds Ratio)
M/WBE Status and Perceived Discrimination at Harford County**

| | Coefficient | P-value |
|--|-------------|---------|
| <i>Regressand:</i> Experienced perceived discrimination at Harford Co.: (Binary) | | |
| Firm owner has more than 20 years experience: (Binary) | 0.5759 | 0.5017 |
| Firm has more than 10 employees: (Binary) | 1.3531 | 0.4466 |
| Firm owner has a baccalaureate degree: (Binary) | 1.8009 | 0.1096 |
| Firm gross revenue greater than 1.5 million: (Binary) | 0.4337 | 0.4732 |
| Firm Bonding limit greater than 1.5 million: (Binary) | 1.4766 | 0.0819 |
| Financing is a barrier for securing Harford Co. projects: (Binary) | 1.0023 | 0.9976 |
| Firm is in the construction sector: (Binary) | 2.6590 | 0.0015 |
| Firm is registered to do business with Harford Co.: (Binary) | 0.4968 | 0.3469 |
| Firm is a willing/able prime contractor for Harford Co.: (Binary) | 0.8240 | 0.8912 |
| Firm is African American-owned: (Binary) | 4.8978 | 0.0134 |
| Firm is Hispanic American-owned: (Binary) | 1.0132 | 0.1351 |
| Firm is Asian American-owned: (Binary) | 1.3215 | 0.0963 |
| Firm is bi/multiracial-owned: (Binary) | 1.0942 | 0.1341 |
| Firm is other race-owned: (Binary) | 7.4951 | 0.0353 |
| Firm is woman-owned: (Binary) | 1.1575 | 0.7593 |
| Number of Observations | 209 | |
| Pseudo R ² | .0936 | |

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I. M/WBE Status and Informal Contracting Networks In the Harford County Market Area

Similar to discrimination at the Harford County, the existence of informal public contracting networks that confer advantages to insiders in securing public contracts and subcontracts, and exclude M/WBEs, could possibly have an adverse effect on M/WBEs ability to secure public contracts and subcontracts with the Harford County.⁴⁶ To explore the role of such informal networks, Tables 13 - 15 report Logit parameter estimates where the dependent variable is if the firm owner agrees that informal networks enable success in public contracting with Harford County.

The odd ratio estimates in Table 14 with statistical significance suggest that relative to non-M/WBEs, firms certified as Minority are more likely to perceive that informal networks enable contracting success with Harford County. When disaggregated by the race/ethnicity/gender of firm owners, the odds ratio estimates with statistical significance in Table 15 suggest that relative to non-M/WBEs, firms owned by African Americans, Other race, and Women are more likely to perceive that informal networks enable contracting success with Harford County. This suggests that, at least for firms certified as Minority, and for firms owned by African Americans, Other Race, and Women, Harford County contracting disparities between them and non-M/WBEs can potentially explained by their exclusion from informal Harford County public contracting networks that reduces their ability to secure prime contracts and subcontracts.

⁴⁶ For evidence that access to informal networks can increase the likelihood of success in securing public contracting See: Sedita, Silvia Rita, and Roberta Apa. 2015. "The Impact of Inter-organizational Relationships on Contractors' Success in Winning Public Procurement Projects: The Case of the Construction Industry in the Veneto Region." *International Journal of Project Management*, 33: pp. 1548-1562.

**Table 14 Mixed Effect Logit Parameter Estimates (Odds Ratio):
M/WBE Status and Informal Contracting Networks
In the Harford County Market Area**

| | Coefficient | P-value |
|---|-------------|---------|
| <i>Regressand:</i> Yes, there is an informal network that enables business with Harford Co.: (Binary) | | |
| Firm owner has more than 20 years experience: (Binary) | 1.1441 | 0.7214 |
| Firm has more than 10 employees: (Binary) | 0.7621 | 0.0241 |
| Firm owner has a baccalaureate degree: (Binary) | 1.5577 | 0.0463 |
| Firm gross revenue greater than 1.5 million: (Binary) | 0.6418 | 0.3643 |
| Firm Bonding limit greater than 1.5 million: (Binary) | 0.7563 | 0.0243 |
| Financing is a barrier for securing Harford Co. projects: (Binary) | 0.9172 | 0.8328 |
| Firm is in the construction sector: (Binary) | 0.8532 | 0.0927 |
| Firm is registered to do business with Harford Co.: (Binary) | 0.5173 | 0.1881 |
| Firm is a willing/able prime contractor for Harford Co.: (Binary) | 1.4415 | 0.1751 |
| Firm is a certified minority business enterprise: (Binary) | 2.2478 | 0.0304 |
| Firm is a certified woman enterprise: (Binary) | 0.7691 | 0.5360 |
| Firm is a certified disadvantaged business enterprise: (Binary) | 1.2003 | 0.5919 |
| Firm is a certified small business enterprise: (Binary) | 1.3958 | 0.4558 |
| Number of Observations | 231 | |
| Pseudo R ² | .0417 | |

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**Table 15 Mixed Effect Logit Parameter Estimates (Odds Ratio):
M/WBE Status and Informal Contracting Networks
In the Harford County Market Area**

| | Coefficient | P-value |
|---|-------------|---------|
| <i>Regressand:</i> Yes, there is an informal network that enables business with Harford Co.: (Binary) | | |
| Firm owner has more than 20 years experience: (Binary) | 1.3485 | 0.3925 |
| Firm has more than 10 employees: (Binary) | 0.7170 | 0.1831 |
| Firm owner has a baccalaureate degree: (Binary) | 1.9284 | 0.0006 |
| Firm gross revenue greater than 1.5 million: (Binary) | 0.7796 | 0.6137 |
| Firm Bonding limit greater than 1.5 million: (Binary) | 0.8480 | 0.0256 |
| Financing is a barrier for securing Harford Co. projects: (Binary) | 1.0164 | 0.9744 |
| Firm is in the construction sector: (Binary) | 1.1144 | 0.4910 |
| Firm is registered to do business with Harford Co.: (Binary) | 0.5796 | 0.1615 |
| Firm is a willing/able prime contractor for Harford Co.: (Binary) | 1.3956 | 0.2563 |
| Firm is African American-owned: (Binary) | 4.1420 | 0.0000 |
| Firm is Hispanic American-owned: (Binary) | 2.1868 | 0.2532 |
| Firm is Asian American-owned: (Binary) | 1.0265 | 0.9721 |
| Firm is bi/multiracial-owned: (Binary) | 1.8421 | 0.5099 |
| Firm is other race-owned: (Binary) | 3.9184 | 0.0447 |
| Firm is woman-owned: (Binary) | 1.6962 | 0.0344 |
| Number of Observations | 231 | |
| Pseudo R ² | .0715 | |

Griffin & Strong, P.C. 2023

Appendix H

Study Definitions

APPENDIX H – DEFINITIONS

Anecdotal: A reported personal experience or encounter, retold through interview, testimony, email, or survey. Not necessarily verified or based on research.

Availability Estimates: A term of art in Disparity Studies that refers to the percentage of ready, willing, and able firms in the entity’s Relevant Market in each work category that is disaggregated by race/ethnicity/gender.

Certification: A designation as a Disadvantaged Business Enterprise (DBE), Minority Business Enterprise (MBE), Women Owned Business Enterprise (WBE), determined by any authorized certification agency that a company is a for-profit, independent operating business that is at least 51% owned, operated and controlled by minority person(s) and/or a woman or women or, in the case of a DBE, a socially and economically disadvantaged person. The ownership and control by minorities and women or a socially and economically disadvantaged person must be real and substantial.

City of Richmond v. J.A. Croson Company 488 U.S. 469 (1989) (“Croson”): – Laws that, on their face, favor one class of citizens over another, may run afoul of the Equal Protection Clause of the 14 Amendment of the U.S. Constitution even if those laws are meant to remedy discrimination. Such laws, including those that create race conscious programs, must withstand judicial “strict scrutiny” or they will be dismantled. In its **Croson** decision, the Supreme Court ruled that the City of Richmond’s Minority Business Enterprise (hereinafter “MBE”) program failed to satisfy the requirements of “strict scrutiny” review under the 14th Amendment “Strict scrutiny” review involves two co-equal considerations to determine whether a race conscious program can withstand the Strict Scrutiny: First, the need to demonstrate a compelling governmental interest (which may be established through periodic disparity studies); Second, implementation of a program or method narrowly-tailored to achieve/remedy the compelling interest. In **Croson**, the Supreme Court concluded that the City of Richmond failed to show that its minority set-aside program was “necessary” to remedy the effects of discrimination in the marketplace.

Construction Services: For the purposes of the Harford County Disparity Study means the construction, erection, repair, renovation, or demolition of a public structure, building, street, road, wharf, and other public improvements. Construction Services is one of the Harford County’s Study Industry Categories.

Disparity Index: A statistical measure demonstrated by the failure to meet parity between availability and Utilization. Disparity is calculated by comparing the utilization percentage to the availability percentage of each race/gender/ethnic group. Will result in either overutilization, underutilization or parity.

Disparity Study (“Study”): A tool, identified by the Supreme Court as necessary for satisfying the strict scrutiny threshold for race conscious programs and demonstrating the compelling governmental interest by “factual predicate” that identifies discrimination and a narrowly tailored remedy to redress any finding of discrimination. Must adhere to the legal requirements of U.S Supreme Court decisions like **City of Richmond v. J.A. Croson Company**, 488 U.S. 469 (1989) and its progeny. Disparity studies are not designed to be an analysis of any current remedial programs but an analysis of race, ethnicity, and gender status and how it affects participation in the procurement process and in the marketplace.

eMaryland MarketPlace Advantage: Maryland's new online procurement platform used to connect the vendor community with contracting opportunities from state, county, and local government entities.

Fiscal Year (“FY”): The business year for Harford County for purchasing and accounting purposes. Measured by Harford County from July 1, 2016 through June 30, 2021. The study period for this study is FY 2017-2021.

Good Faith Efforts (“GFE”): The documentation and verification process to ensure that prime contractors are soliciting and negotiating with MWBEs in “good faith” for potential subcontracting opportunities.

Goods: For the purposes of the Harford County Disparity Study means commodities, materials, supplies, equipment. Goods are one of the Harford County Study Industry Categories.

Industry Categories: Means, collectively, the industry categories included in the Disparity Study, which are: Construction, Professional Services, Other Services, and Goods, as those industry categories (or commodity types) are defined in this section.

Minority or Women-owned Business Enterprise (MWBE): Means a for-profit, independent operating business that is at least 51% owned, operated and controlled by minority person(s) and/or a woman or women. The ownership by minorities and women must be real and substantial. The minority group member(s) or women must have operational and managerial control, interest in capital and earnings commensurate with the percentage of ownership.

NAICS: The North American Industry Classification System.

Other Services: For the purposes of the Harford County Disparity Study means services performed by a person or persons having special skill that is primarily physical or manual in nature. Examples of Goods and Other Services include office supplies, safety supplies, janitorial services, printing and reproduction, pest control, rubbish container emptying, and supply services. Goods are one of the Harford County Study Industry Categories.

Overutilization: The measure by which the utilization percentage is higher than the availability percentage and the Disparity Index is above 100. In order to be statistically significantly overutilized, the Disparity Index must be 100 or more.

Parity: The absence of disparity, demonstrated by the utilization percentage being equal to availability percentage and the Disparity Index equaling 100.

Prime Contractor: A business who has entered into direct contractual relationship with Harford County, or other public or private entity to provide a good, service, or perform a scope of services.

Qualitative Analysis: Also known as anecdotal analysis. Referring to a measurement of quality (ex. how good over how much). Typified through collection and analysis of constituents' anecdotal impressions, such as interviews, public hearings, focus groups, and other forms of commentary.

Quantitative Analysis: Commonly referred to as statistical analysis. Referring to a measurement of quantity over quality (ex. how much over how good). Typified by analysis of mathematical or statistical modeling.

Regression Analysis: Statistical measure used to determine whether the race, ethnicity or gender status of a business owner are an impediment in contracting in the Harford County marketplace and whether but for these, they would have the capacity to provide services on a higher level than is currently utilized.

Relevant Geographic Market Area: A term of art in disparity studies that refers to the geographical area in which the entity spends at least 75% of its dollars based upon firm location. For Harford County, the Relevant Market Area was the Washington-Baltimore-Arlington, DC-MD-VA-WV-PA Combined Statistical Area.

Strict Scrutiny: The highest level of judicial scrutiny used in determining the constitutionality of laws.

Study Period: The period between which all Harford County contract awards are subject to study analysis. For this study it has been defined as (July 1, 2016 – June 30, 2021) FY2017-FY2021.

Subcontractor: A business who has entered into a direct contractual relationship with a Prime Contractor to either provide a good or service or perform a full scope, or portion of a scope of services.

Underutilization: The measure by which the utilization percentage is less than the availability percentage and the Disparity Index is below 100. In order to be statistically significantly underutilized, the Disparity Index must be 80 or less.

Utilization: A review of the Harford County's Awards to determine where and with whom Prime Contractor and Subcontractor were made. The analysis is conducted both with regard to the number of firms and the dollars in each race, ethnicity, gender group during each year of the Study.

Utilization: A term of art in disparity studies that refers to the percentage dollars paid to firms during the Study Period in the Relevant Geographic and Product Markets disaggregated by race/ethnicity/gender.

Appendix I

Survey of Business Owners Results

APPENDIX I – SURVEY OF BUSINESS OWNERS RESULTS

A brief note on how tables are calculated

Duplicate responses have been removed. Duplicate responses were removed based on businesses having either the same email address or same business name.

The total count of responses for each question includes only those participants who responded to that question. Participants who skipped or were not given a question are not included.

| Table 1. Is your company a not for profit organization or a government entity? | | | | | | | |
|--|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Yes | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| No | 64 | 71 | 67 | 9 | 12 | 8 | 231 |
| | 100 % | 100 % | 100 % | 100 % | 100 % | 100 % | 100 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 2. Do you believe your firm is ready, willing, and able to do business as a prime contractor with Harford County? | | | | | | | |
|---|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Yes | 55 | 53 | 59 | 6 | 11 | 8 | 192 |
| | 85.9 % | 74.6 % | 88.1 % | 66.7 % | 91.7 % | 100 % | 83.1 % |
| No | 9 | 18 | 8 | 3 | 1 | 0 | 39 |
| | 14.1 % | 25.4 % | 11.9 % | 33.3 % | 8.3 % | 0 % | 16.9 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 3. Do you believe your firm is ready, willing, and able to do business as a subcontractor with Harford County?

| | Owners' Minority Status | | | | | | |
|--------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Yes | 53 | 56 | 64 | 7 | 12 | 8 | 200 |
| | 82.8 % | 78.9 % | 95.5 % | 77.8 % | 100 % | 100 % | 86.6 % |
| No | 11 | 15 | 3 | 2 | 0 | 0 | 31 |
| | 17.2 % | 21.1 % | 4.5 % | 22.2 % | 0 % | 0 % | 13.4 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 4. Which one of the following is your company's primary line of business?

| | Owners' Minority Status | | | | | | |
|---|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Construction | 15 | 7 | 11 | 0 | 3 | 3 | 39 |
| | 23.4 % | 9.9 % | 16.4 % | 0 % | 25 % | 37.5 % | 16.9 % |
| Architecture & Engineering | 7 | 3 | 2 | 1 | 1 | 0 | 14 |
| | 10.9 % | 4.2 % | 3 % | 11.1 % | 8.3 % | 0 % | 6.1 % |
| Professional Services | 22 | 30 | 42 | 3 | 5 | 5 | 107 |
| | 34.4 % | 42.3 % | 62.7 % | 33.3 % | 41.7 % | 62.5 % | 46.3 % |
| Non-Professional Services (Other Services) | 12 | 9 | 7 | 4 | 2 | 0 | 34 |
| | 18.8 % | 12.7 % | 10.4 % | 44.4 % | 16.7 % | 0 % | 14.7 % |
| | 8 | 22 | 5 | 1 | 1 | 0 | 37 |

| Table 4. Which one of the following is your company's primary line of business? | | | | | | | |
|---|--------------------------------|-------|-------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Goods (Commodity) | 12.5 % | 31 % | 7.5 % | 11.1 % | 8.3 % | 0 % | 16 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 5. How long has your company been in operation? | | | | | | | |
|---|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Under 1 year | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| | 0 % | 1.4 % | 0 % | 0 % | 0 % | 0 % | 0.4 % |
| 1-5 years | 7 | 14 | 21 | 1 | 3 | 4 | 50 |
| | 10.9 % | 19.7 % | 31.3 % | 11.1 % | 25 % | 50 % | 21.6 % |
| 6-10 years | 4 | 11 | 15 | 2 | 2 | 1 | 35 |
| | 6.2 % | 15.5 % | 22.4 % | 22.2 % | 16.7 % | 12.5 % | 15.2 % |
| 11-15 years | 15 | 6 | 7 | 2 | 1 | 1 | 32 |
| | 23.4 % | 8.5 % | 10.4 % | 22.2 % | 8.3 % | 12.5 % | 13.9 % |
| 16-20 years | 5 | 9 | 7 | 0 | 3 | 0 | 24 |
| | 7.8 % | 12.7 % | 10.4 % | 0 % | 25 % | 0 % | 10.4 % |
| Over 20 years | 33 | 30 | 17 | 4 | 3 | 2 | 89 |
| | 51.6 % | 42.3 % | 25.4 % | 44.4 % | 25 % | 25 % | 38.5 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 6. Is at least 51% percent of your company owned and controlled by a woman or women?

| | Owners' Minority Status | | | | | | |
|--------------|--------------------------------|-------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Yes | 0 | 71 | 40 | 5 | 7 | 4 | 127 |
| | 0 % | 100 % | 59.7 % | 55.6 % | 58.3 % | 50 % | 55 % |
| No | 64 | 0 | 27 | 4 | 5 | 4 | 104 |
| | 100 % | 0 % | 40.3 % | 44.4 % | 41.7 % | 50 % | 45 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 7. Which of the following categories would you consider to be the race or ethnic origin that the person or persons that own at least 51% of the company identify as? Would you say:

| | Owners' Minority Status | | | | | | |
|----------------------------------|--------------------------------|-------|-------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Black | 0 | 0 | 67 | 0 | 0 | 0 | 67 |
| | 0 % | 0 % | 100 % | 0 % | 0 % | 0 % | 29 % |
| Asian | 0 | 0 | 0 | 7 | 0 | 0 | 7 |
| | 0 % | 0 % | 0 % | 77.8 % | 0 % | 0 % | 3 % |
| Hispanic | 0 | 0 | 0 | 0 | 11 | 0 | 11 |
| | 0 % | 0 % | 0 % | 0 % | 91.7 % | 0 % | 4.8 % |
| American Indian | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| Multi-Racial or Bi-Racial | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 50 % | 1.7 % |
| Caucasian | 59 | 69 | 0 | 0 | 0 | 0 | 128 |

Table 7. Which of the following categories would you consider to be the race or ethnic origin that the person or persons that own at least 51% of the company identify as? Would you say:

| | <i>Owners' Minority Status</i> | | | | | | |
|--------------------------------|--------------------------------|--------|-------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| | 92.2 % | 97.2 % | 0 % | 0 % | 0 % | 0 % | 55.4 % |
| Publicly Traded Company | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| Other | 5 | 2 | 0 | 2 | 1 | 4 | 14 |
| | 7.8 % | 2.8 % | 0 % | 22.2 % | 8.3 % | 50 % | 6.1 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 8. What is your current single project bonding limit since July 1, 2016?

| | <i>Owners' Minority Status</i> | | | | | | |
|------------------------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| \$24,999 or less | 2 | 2 | 3 | 0 | 1 | 0 | 8 |
| | 3.1 % | 2.8 % | 4.5 % | 0 % | 8.3 % | 0 % | 3.5 % |
| \$25,000 - \$50,000 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| | 1.6 % | 0 % | 1.5 % | 0 % | 0 % | 0 % | 0.9 % |
| \$50,001 - \$100,000 | 0 | 1 | 2 | 0 | 1 | 0 | 4 |
| | 0 % | 1.4 % | 3 % | 0 % | 8.3 % | 0 % | 1.7 % |
| \$100,001 - \$250,000 | 1 | 1 | 1 | 0 | 0 | 0 | 3 |
| | 1.6 % | 1.4 % | 1.5 % | 0 % | 0 % | 0 % | 1.3 % |
| \$250,001 - \$500,000 | 4 | 2 | 6 | 0 | 1 | 3 | 16 |
| | 6.2 % | 2.8 % | 9 % | 0 % | 8.3 % | 37.5 % | 6.9 % |

Table 8. What is your current single project bonding limit since July 1, 2016?

| Responses | <i>Owners' Minority Status</i> | | | | | | <i>Total</i> |
|-----------------------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| \$500,001 - \$750,000 | 0 | 0 | 2 | 1 | 0 | 1 | 4 |
| | 0 % | 0 % | 3 % | 11.1 % | 0 % | 12.5 % | 1.7 % |
| \$750,001 - \$1,000,000 | 3 | 2 | 1 | 0 | 0 | 0 | 6 |
| | 4.7 % | 2.8 % | 1.5 % | 0 % | 0 % | 0 % | 2.6 % |
| \$1,000,001 - \$2,500,000 | 3 | 2 | 4 | 0 | 1 | 1 | 11 |
| | 4.7 % | 2.8 % | 6 % | 0 % | 8.3 % | 12.5 % | 4.8 % |
| \$2,500,001 - \$5,000,000 | 4 | 1 | 4 | 0 | 1 | 0 | 10 |
| | 6.2 % | 1.4 % | 6 % | 0 % | 8.3 % | 0 % | 4.3 % |
| \$5,000,001 - \$10,000,000 | 1 | 4 | 1 | 0 | 0 | 0 | 6 |
| | 1.6 % | 5.6 % | 1.5 % | 0 % | 0 % | 0 % | 2.6 % |
| Over \$10 million | 2 | 0 | 1 | 0 | 0 | 0 | 3 |
| | 3.1 % | 0 % | 1.5 % | 0 % | 0 % | 0 % | 1.3 % |
| Do Not Know | 12 | 14 | 14 | 3 | 2 | 1 | 46 |
| | 18.8 % | 19.7 % | 20.9 % | 33.3 % | 16.7 % | 12.5 % | 19.9 % |
| Not Applicable | 31 | 42 | 27 | 5 | 5 | 2 | 112 |
| | 48.4 % | 59.2 % | 40.3 % | 55.6 % | 41.7 % | 25 % | 48.5 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 9. What is the largest single contract your firm has been awarded since July 1, 2016?

| Responses | <i>Owners' Minority Status</i> | | | | | | <i>Total</i> |
|-----------------------------------|--------------------------------|-------|--------|--------|----------|---------------------------|--------------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| \$24,999 or less | 9 | 6 | 9 | 0 | 2 | 1 | 27 |
| | 14.1 % | 8.5 % | 13.4 % | 0 % | 16.7 % | 12.5 % | 11.7 % |
| \$25,000 - \$50,000 | 4 | 4 | 5 | 0 | 2 | 1 | 16 |
| | 6.2 % | 5.6 % | 7.5 % | 0 % | 16.7 % | 12.5 % | 6.9 % |
| \$50,001 - \$100,000 | 5 | 1 | 6 | 0 | 2 | 0 | 14 |
| | 7.8 % | 1.4 % | 9 % | 0 % | 16.7 % | 0 % | 6.1 % |
| \$100,001 - \$250,000 | 7 | 6 | 12 | 1 | 2 | 2 | 30 |
| | 10.9 % | 8.5 % | 17.9 % | 11.1 % | 16.7 % | 25 % | 13 % |
| \$250,001 - \$500,000 | 6 | 3 | 6 | 2 | 0 | 1 | 18 |
| | 9.4 % | 4.2 % | 9 % | 22.2 % | 0 % | 12.5 % | 7.8 % |
| \$500,001 - \$750,000 | 2 | 2 | 1 | 0 | 0 | 1 | 6 |
| | 3.1 % | 2.8 % | 1.5 % | 0 % | 0 % | 12.5 % | 2.6 % |
| \$750,001 - \$1,000,000 | 1 | 1 | 3 | 1 | 0 | 1 | 7 |
| | 1.6 % | 1.4 % | 4.5 % | 11.1 % | 0 % | 12.5 % | 3 % |
| \$1,000,001 - \$2,500,000 | 8 | 5 | 2 | 0 | 0 | 0 | 15 |
| | 12.5 % | 7 % | 3 % | 0 % | 0 % | 0 % | 6.5 % |
| \$2,500,001 - \$5,000,000 | 2 | 4 | 3 | 0 | 1 | 0 | 10 |
| | 3.1 % | 5.6 % | 4.5 % | 0 % | 8.3 % | 0 % | 4.3 % |
| \$5,000,001 - \$10,000,000 | 2 | 2 | 2 | 0 | 0 | 0 | 6 |
| | 3.1 % | 2.8 % | 3 % | 0 % | 0 % | 0 % | 2.6 % |
| | 2 | 1 | 1 | 0 | 1 | 0 | 5 |

Table 9. What is the largest single contract your firm has been awarded since July 1, 2016?

| | <i>Owners' Minority Status</i> | | | | | | |
|--------------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Over \$10 million | 3.1 % | 1.4 % | 1.5 % | 0 % | 8.3 % | 0 % | 2.2 % |
| Do Not Know | 2 | 5 | 1 | 2 | 0 | 0 | 10 |
| | 3.1 % | 7 % | 1.5 % | 22.2 % | 0 % | 0 % | 4.3 % |
| Not Applicable | 14 | 31 | 16 | 3 | 2 | 1 | 67 |
| | 21.9 % | 43.7 % | 23.9 % | 33.3 % | 16.7 % | 12.5 % | 29 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 10. Indicate what you have performed as on any government or private contract since July 1, 2016.

| | <i>Owners' Minority Status</i> | | | | | | |
|---|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Prime Contractor and Subcontractor | 23 | 15 | 25 | 1 | 4 | 3 | 71 |
| | 35.9 % | 21.1 % | 37.3 % | 11.1 % | 33.3 % | 37.5 % | 30.7 % |
| Prime Contractor | 18 | 7 | 12 | 1 | 3 | 2 | 43 |
| | 28.1 % | 9.9 % | 17.9 % | 11.1 % | 25 % | 25 % | 18.6 % |
| Subcontractor | 6 | 14 | 8 | 4 | 2 | 2 | 36 |
| | 9.4 % | 19.7 % | 11.9 % | 44.4 % | 16.7 % | 25 % | 15.6 % |
| Neither | 17 | 35 | 22 | 3 | 3 | 1 | 81 |
| | 26.6 % | 49.3 % | 32.8 % | 33.3 % | 25 % | 12.5 % | 35.1 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 11. On average, how many employees and regular independent contractors does your company keep on the payroll, including full-time and part-time staff? (Number of Employees)

| Responses | <i>Owners' Minority Status</i> | | | | | | <i>Total</i> |
|-----------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| None | 3 | 10 | 4 | 0 | 0 | 1 | 18 |
| | 4.7 % | 14.1 % | 6 % | 0 % | 0 % | 12.5 % | 7.8 % |
| 1-10 | 35 | 36 | 49 | 7 | 7 | 3 | 137 |
| | 54.7 % | 50.7 % | 73.1 % | 77.8 % | 58.3 % | 37.5 % | 59.3 % |
| 11-30 | 14 | 16 | 8 | 1 | 5 | 2 | 46 |
| | 21.9 % | 22.5 % | 11.9 % | 11.1 % | 41.7 % | 25 % | 19.9 % |
| 31-50 | 8 | 5 | 2 | 0 | 0 | 2 | 17 |
| | 12.5 % | 7 % | 3 % | 0 % | 0 % | 25 % | 7.4 % |
| 51-75 | 2 | 3 | 2 | 1 | 0 | 0 | 8 |
| | 3.1 % | 4.2 % | 3 % | 11.1 % | 0 % | 0 % | 3.5 % |
| 76-100 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| | 0 % | 0 % | 1.5 % | 0 % | 0 % | 0 % | 0.4 % |
| 101-300 | 2 | 1 | 0 | 0 | 0 | 0 | 3 |
| | 3.1 % | 1.4 % | 0 % | 0 % | 0 % | 0 % | 1.3 % |
| Over 300 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| | 0 % | 0 % | 1.5 % | 0 % | 0 % | 0 % | 0.4 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 12. What is the highest level of education completed by any owner of your company? Would you say:

| Responses | <i>Owners' Minority Status</i> | | | | | | <i>Total</i> |
|---------------------------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| Some High School | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| | 1.6 % | 0 % | 1.5 % | 0 % | 0 % | 0 % | 0.9 % |
| High School graduate | 7 | 2 | 2 | 0 | 0 | 0 | 11 |
| | 10.9 % | 2.8 % | 3 % | 0 % | 0 % | 0 % | 4.8 % |
| Some College | 11 | 18 | 11 | 0 | 3 | 1 | 44 |
| | 17.2 % | 25.4 % | 16.4 % | 0 % | 25 % | 12.5 % | 19 % |
| College Graduate | 24 | 27 | 18 | 4 | 5 | 3 | 81 |
| | 37.5 % | 38 % | 26.9 % | 44.4 % | 41.7 % | 37.5 % | 35.1 % |
| Post Graduate Degree | 17 | 20 | 31 | 5 | 4 | 3 | 80 |
| | 26.6 % | 28.2 % | 46.3 % | 55.6 % | 33.3 % | 37.5 % | 34.6 % |
| Trade or Technical Certificate | 1 | 3 | 4 | 0 | 0 | 1 | 9 |
| | 1.6 % | 4.2 % | 6 % | 0 % | 0 % | 12.5 % | 3.9 % |
| Do Not Know | 3 | 1 | 0 | 0 | 0 | 0 | 4 |
| | 4.7 % | 1.4 % | 0 % | 0 % | 0 % | 0 % | 1.7 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 13. What is the greatest number of years of experience that any owners in your company's line of business have?

| Responses | <i>Owners' Minority Status</i> | | | | | | <i>Total</i> |
|---------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| None | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| 1-5 | 1 | 6 | 5 | 0 | 0 | 1 | 13 |
| | 1.6 % | 8.5 % | 7.5 % | 0 % | 0 % | 12.5 % | 5.6 % |
| 6-10 | 2 | 0 | 7 | 1 | 1 | 1 | 12 |
| | 3.1 % | 0 % | 10.4 % | 11.1 % | 8.3 % | 12.5 % | 5.2 % |
| 11-15 | 3 | 6 | 6 | 0 | 1 | 0 | 16 |
| | 4.7 % | 8.5 % | 9 % | 0 % | 8.3 % | 0 % | 6.9 % |
| 16-20 | 2 | 5 | 7 | 0 | 2 | 2 | 18 |
| | 3.1 % | 7 % | 10.4 % | 0 % | 16.7 % | 25 % | 7.8 % |
| More than 20 | 56 | 54 | 42 | 8 | 8 | 4 | 172 |
| | 87.5 % | 76.1 % | 62.7 % | 88.9 % | 66.7 % | 50 % | 74.5 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 14. Which of the following categories best approximates your company's gross revenues for calendar year 2021. Your best estimate will suffice.

| Responses | <i>Owners' Minority Status</i> | | | | | | <i>Total</i> |
|--------------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| \$100,000 or less | 8 | 10 | 27 | 1 | 0 | 1 | 47 |
| | 12.5 % | 14.1 % | 40.3 % | 11.1 % | 0 % | 12.5 % | 20.3 % |

Table 14. Which of the following categories best approximates your company's gross revenues for calendar year 2021. Your best estimate will suffice.

| Responses | <i>Owners' Minority Status</i> | | | | | | <i>Total</i> |
|------------------------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| \$100,001 - \$250,000 | 5 | 11 | 13 | 2 | 5 | 0 | 36 |
| | 7.8 % | 15.5 % | 19.4 % | 22.2 % | 41.7 % | 0 % | 15.6 % |
| \$250,001 - \$500,000 | 7 | 12 | 7 | 1 | 1 | 2 | 30 |
| | 10.9 % | 16.9 % | 10.4 % | 11.1 % | 8.3 % | 25 % | 13 % |
| \$500,001 - \$750,000 | 3 | 7 | 5 | 0 | 1 | 1 | 17 |
| | 4.7 % | 9.9 % | 7.5 % | 0 % | 8.3 % | 12.5 % | 7.4 % |
| \$750,001 - \$1,000,000 | 5 | 3 | 2 | 0 | 0 | 1 | 11 |
| | 7.8 % | 4.2 % | 3 % | 0 % | 0 % | 12.5 % | 4.8 % |
| \$1,000,001 - \$1,320,000 | 9 | 5 | 1 | 1 | 1 | 0 | 17 |
| | 14.1 % | 7 % | 1.5 % | 11.1 % | 8.3 % | 0 % | 7.4 % |
| \$1,320,001 - \$1,500,000 | 4 | 0 | 2 | 1 | 1 | 1 | 9 |
| | 6.2 % | 0 % | 3 % | 11.1 % | 8.3 % | 12.5 % | 3.9 % |
| \$1,500,001 - \$5,000,000 | 9 | 13 | 4 | 0 | 1 | 0 | 27 |
| | 14.1 % | 18.3 % | 6 % | 0 % | 8.3 % | 0 % | 11.7 % |
| \$5,000,001 - \$10,000,000 | 7 | 2 | 4 | 0 | 1 | 1 | 15 |
| | 10.9 % | 2.8 % | 6 % | 0 % | 8.3 % | 12.5 % | 6.5 % |
| \$10,000,001 - \$15,000,000 | 0 | 3 | 1 | 0 | 0 | 0 | 4 |
| | 0 % | 4.2 % | 1.5 % | 0 % | 0 % | 0 % | 1.7 % |
| \$15,000,001 - \$20,000,000 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 3.1 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0.9 % |
| | 3 | 2 | 0 | 0 | 0 | 0 | 5 |

Table 14. Which of the following categories best approximates your company's gross revenues for calendar year 2021. Your best estimate will suffice.

| | <i>Owners' Minority Status</i> | | | | | | |
|------------------------------------|--------------------------------|-------|-------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| \$20,000,001 - \$39,500,000 | 4.7 % | 2.8 % | 0 % | 0 % | 0 % | 0 % | 2.2 % |
| Over \$39,500,000 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | 0 % | 0 % | 0 % | 0 % | 8.3 % | 0 % | 0.4 % |
| Don't Know | 2 | 3 | 1 | 3 | 0 | 0 | 9 |
| | 3.1 % | 4.2 % | 1.5 % | 33.3 % | 0 % | 0 % | 3.9 % |
| Company Out of Business | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 12.5 % | 0.4 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 15. Is your company registered with eMaryland Marketplace?

| | <i>Owners' Minority Status</i> | | | | | | |
|-----------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Yes | 26 | 23 | 42 | 5 | 9 | 1 | 106 |
| | 40.6 % | 32.4 % | 62.7 % | 55.6 % | 75 % | 12.5 % | 45.9 % |
| No | 23 | 30 | 18 | 2 | 3 | 5 | 81 |
| | 35.9 % | 42.3 % | 26.9 % | 22.2 % | 25 % | 62.5 % | 35.1 % |
| Not sure | 15 | 18 | 7 | 2 | 0 | 2 | 44 |
| | 23.4 % | 25.4 % | 10.4 % | 22.2 % | 0 % | 25 % | 19 % |

Table 15. Is your company registered with eMaryland Marketplace?

| | Owners' Minority Status | | | | | | |
|--------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 16. Is your company registered with any other government entity (including but not limited to): City of Baltimore, MDOT, etc.?

| | Owners' Minority Status | | | | | | |
|--------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Yes | 30 | 34 | 49 | 7 | 8 | 4 | 132 |
| | 46.9 % | 47.9 % | 73.1 % | 77.8 % | 66.7 % | 50 % | 57.1 % |
| No | 34 | 37 | 18 | 2 | 4 | 4 | 99 |
| | 53.1 % | 52.1 % | 26.9 % | 22.2 % | 33.3 % | 50 % | 42.9 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 17. Why is your company not registered with eMaryland Marketplace? Indicate all that apply. [Do not know how to register.]

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|--------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 31 | 39 | 18 | 3 | 2 | 6 | 99 |
| | 81.6 % | 81.2 % | 72 % | 75 % | 66.7 % | 85.7 % | 79.2 % |
| Selected | 7 | 9 | 7 | 1 | 1 | 1 | 26 |
| | 18.4 % | 18.8 % | 28 % | 25 % | 33.3 % | 14.3 % | 20.8 % |

Table 17. Why is your company not registered with eMaryland Marketplace? Indicate all that apply. [Do not know how to register.]

| | Owners' Minority Status | | | | | | |
|--------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Total | 38 | 48 | 25 | 4 | 3 | 7 | 125 |

Table 18. Did not know there was a registry.

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|--------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 19 | 22 | 7 | 3 | 1 | 0 | 52 |
| | 50 % | 45.8 % | 28 % | 75 % | 33.3 % | 0 % | 41.6 % |
| Selected | 19 | 26 | 18 | 1 | 2 | 7 | 73 |
| | 50 % | 54.2 % | 72 % | 25 % | 66.7 % | 100 % | 58.4 % |
| Total | 38 | 48 | 25 | 4 | 3 | 7 | 125 |

Table 19. Do not see any benefit in registering.

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|--------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 36 | 42 | 22 | 2 | 2 | 7 | 111 |
| | 94.7 % | 87.5 % | 88 % | 50 % | 66.7 % | 100 % | 88.8 % |
| Selected | 2 | 6 | 3 | 2 | 1 | 0 | 14 |
| | 5.3 % | 12.5 % | 12 % | 50 % | 33.3 % | 0 % | 11.2 % |
| Total | 38 | 48 | 25 | 4 | 3 | 7 | 125 |

Table 20. Do not want to do business with government.

| | <i>Owners' Minority Status</i> | | | | | | |
|---------------------|--------------------------------|--------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 36 | 44 | 25 | 4 | 3 | 7 | 119 |
| | 94.7 % | 91.7 % | 100 % | 100 % | 100 % | 100 % | 95.2 % |
| Selected | 2 | 4 | 0 | 0 | 0 | 0 | 6 |
| | 5.3 % | 8.3 % | 0 % | 0 % | 0 % | 0 % | 4.8 % |
| Total | 38 | 48 | 25 | 4 | 3 | 7 | 125 |

Table 21. Do not want to do business in Maryland.

| | <i>Owners' Minority Status</i> | | | | | | |
|---------------------|--------------------------------|--------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 38 | 46 | 25 | 4 | 3 | 7 | 123 |
| | 100 % | 95.8 % | 100 % | 100 % | 100 % | 100 % | 98.4 % |
| Selected | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| | 0 % | 4.2 % | 0 % | 0 % | 0 % | 0 % | 1.6 % |
| Total | 38 | 48 | 25 | 4 | 3 | 7 | 125 |

Table 22. Do not see opportunities in my field of work.

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|--------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 31 | 39 | 22 | 3 | 3 | 7 | 105 |
| | 81.6 % | 81.2 % | 88 % | 75 % | 100 % | 100 % | 84 % |
| Selected | 7 | 9 | 3 | 1 | 0 | 0 | 20 |
| | 18.4 % | 18.8 % | 12 % | 25 % | 0 % | 0 % | 16 % |
| Total | 38 | 48 | 25 | 4 | 3 | 7 | 125 |

Table 23. Do not believe firm would be awarded contract.

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|--------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 34 | 44 | 23 | 2 | 2 | 6 | 111 |
| | 89.5 % | 91.7 % | 92 % | 50 % | 66.7 % | 85.7 % | 88.8 % |
| Selected | 4 | 4 | 2 | 2 | 1 | 1 | 14 |
| | 10.5 % | 8.3 % | 8 % | 50 % | 33.3 % | 14.3 % | 11.2 % |
| Total | 38 | 48 | 25 | 4 | 3 | 7 | 125 |

Table 24. Other, please specify

| | Owners' Minority Status | | | | | | |
|-----------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| | 31 | 42 | 23 | 1 | 3 | 7 | 107 |

| Table 24. Other, please specify | | | | | | | |
|---------------------------------|--------------------------------|--------|-------|-------|----------|---------------------------|--------------|
| | Owners' Minority Status | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 81.6 % | 87.5 % | 92 % | 25 % | 100 % | 100 % | 85.6 % |
| Selected | 7 | 6 | 2 | 3 | 0 | 0 | 18 |
| | 18.4 % | 12.5 % | 8 % | 75 % | 0 % | 0 % | 14.4 % |
| Total | 38 | 48 | 25 | 4 | 3 | 7 | 125 |

| Table 25. From July 1, 2016, through June 30, 2021, how many times has your company submitted bids or proposals for projects as prime contractor on: [Harford County Government Projects] | | | | | | | |
|---|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | Owners' Minority Status | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| None | 39 | 55 | 49 | 6 | 7 | 6 | 162 |
| | 60.9 % | 77.5 % | 73.1 % | 66.7 % | 58.3 % | 75 % | 70.1 % |
| 1-10 | 16 | 7 | 11 | 0 | 3 | 1 | 38 |
| | 25 % | 9.9 % | 16.4 % | 0 % | 25 % | 12.5 % | 16.5 % |
| 11-25 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 3.1 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0.9 % |
| 26-50 | 2 | 1 | 0 | 0 | 0 | 0 | 3 |
| | 3.1 % | 1.4 % | 0 % | 0 % | 0 % | 0 % | 1.3 % |
| 51-100 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| | 0 % | 0 % | 1.5 % | 0 % | 8.3 % | 0 % | 0.9 % |
| Over 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 25. From July 1, 2016, through June 30, 2021, how many times has your company submitted bids or proposals for projects as prime contractor on: [Harford County Government Projects]

| | Owners' Minority Status | | | | | | |
|-----------------------|--------------------------------|--------|-------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| Do Not Know/NA | 5 | 8 | 6 | 3 | 1 | 1 | 24 |
| | 7.8 % | 11.3 % | 9 % | 33.3 % | 8.3 % | 12.5 % | 10.4 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 26. Private Sector Projects

| | Owners' Minority Status | | | | | | |
|-----------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| None | 25 | 39 | 28 | 5 | 5 | 4 | 106 |
| | 39.1 % | 54.9 % | 41.8 % | 55.6 % | 41.7 % | 50 % | 45.9 % |
| 1-10 | 6 | 13 | 23 | 1 | 2 | 3 | 48 |
| | 9.4 % | 18.3 % | 34.3 % | 11.1 % | 16.7 % | 37.5 % | 20.8 % |
| 11-25 | 3 | 4 | 4 | 0 | 1 | 0 | 12 |
| | 4.7 % | 5.6 % | 6 % | 0 % | 8.3 % | 0 % | 5.2 % |
| 26-50 | 3 | 3 | 4 | 0 | 1 | 0 | 11 |
| | 4.7 % | 4.2 % | 6 % | 0 % | 8.3 % | 0 % | 4.8 % |
| 51-100 | 6 | 2 | 1 | 0 | 1 | 0 | 10 |
| | 9.4 % | 2.8 % | 1.5 % | 0 % | 8.3 % | 0 % | 4.3 % |
| Over 100 | 13 | 2 | 1 | 0 | 0 | 0 | 16 |
| | 20.3 % | 2.8 % | 1.5 % | 0 % | 0 % | 0 % | 6.9 % |

| | Owners' Minority Status | | | | | | |
|-----------------------|--------------------------------|--------|-------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Do Not Know/NA | 8 | 8 | 6 | 3 | 2 | 1 | 28 |
| | 12.5 % | 11.3 % | 9 % | 33.3 % | 16.7 % | 12.5 % | 12.1 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| | Owners' Minority Status | | | | | | |
|-----------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| None | 26 | 42 | 30 | 5 | 4 | 4 | 111 |
| | 40.6 % | 59.2 % | 44.8 % | 55.6 % | 33.3 % | 50 % | 48.1 % |
| 1-10 | 13 | 16 | 21 | 0 | 3 | 3 | 56 |
| | 20.3 % | 22.5 % | 31.3 % | 0 % | 25 % | 37.5 % | 24.2 % |
| 11-25 | 4 | 1 | 6 | 0 | 2 | 0 | 13 |
| | 6.2 % | 1.4 % | 9 % | 0 % | 16.7 % | 0 % | 5.6 % |
| 26-50 | 6 | 3 | 2 | 0 | 0 | 0 | 11 |
| | 9.4 % | 4.2 % | 3 % | 0 % | 0 % | 0 % | 4.8 % |
| 51-100 | 1 | 1 | 4 | 0 | 0 | 0 | 6 |
| | 1.6 % | 1.4 % | 6 % | 0 % | 0 % | 0 % | 2.6 % |
| Over 100 | 9 | 0 | 0 | 1 | 1 | 0 | 11 |
| | 14.1 % | 0 % | 0 % | 11.1 % | 8.3 % | 0 % | 4.8 % |
| | 5 | 8 | 4 | 3 | 2 | 1 | 23 |

Table 27. Other Public Sector (non-Harford County Projects)

| | Owners' Minority Status | | | | | | |
|-----------------------|--------------------------------|--------|-------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Do Not Know/NA | 7.8 % | 11.3 % | 6 % | 33.3 % | 16.7 % | 12.5 % | 10 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 28. From July 1, 2016, through June 30, 2021, how many times has your company been awarded contracts to perform as a prime contractor: [Harford County Government Projects]

| | Owners' Minority Status | | | | | | |
|-----------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| None | 40 | 54 | 55 | 6 | 10 | 6 | 171 |
| | 62.5 % | 76.1 % | 82.1 % | 66.7 % | 83.3 % | 75 % | 74 % |
| 1-10 | 19 | 4 | 4 | 0 | 1 | 0 | 28 |
| | 29.7 % | 5.6 % | 6 % | 0 % | 8.3 % | 0 % | 12.1 % |
| 11-25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| 26-50 | 2 | 1 | 0 | 0 | 0 | 0 | 3 |
| | 3.1 % | 1.4 % | 0 % | 0 % | 0 % | 0 % | 1.3 % |
| 51-100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| Over 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| | 3 | 12 | 8 | 3 | 1 | 2 | 29 |

Table 28. From July 1, 2016, through June 30, 2021, how many times has your company been awarded contracts to perform as a prime contractor: [Harford County Government Projects]

| | Owners' Minority Status | | | | | | |
|-----------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Do Not Know/NA | 4.7 % | 16.9 % | 11.9 % | 33.3 % | 8.3 % | 25 % | 12.6 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 29. Private Sector Projects

| | Owners' Minority Status | | | | | | |
|-----------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| None | 27 | 35 | 30 | 5 | 5 | 5 | 107 |
| | 42.2 % | 49.3 % | 44.8 % | 55.6 % | 41.7 % | 62.5 % | 46.3 % |
| 1-10 | 6 | 16 | 19 | 1 | 2 | 1 | 45 |
| | 9.4 % | 22.5 % | 28.4 % | 11.1 % | 16.7 % | 12.5 % | 19.5 % |
| 11-25 | 2 | 4 | 8 | 0 | 2 | 0 | 16 |
| | 3.1 % | 5.6 % | 11.9 % | 0 % | 16.7 % | 0 % | 6.9 % |
| 26-50 | 9 | 0 | 2 | 0 | 2 | 0 | 13 |
| | 14.1 % | 0 % | 3 % | 0 % | 16.7 % | 0 % | 5.6 % |
| 51-100 | 1 | 1 | 1 | 0 | 0 | 0 | 3 |
| | 1.6 % | 1.4 % | 1.5 % | 0 % | 0 % | 0 % | 1.3 % |
| Over 100 | 11 | 2 | 1 | 0 | 0 | 0 | 14 |
| | 17.2 % | 2.8 % | 1.5 % | 0 % | 0 % | 0 % | 6.1 % |
| | 8 | 13 | 6 | 3 | 1 | 2 | 33 |

| Table 29. Private Sector Projects | | | | | | | |
|-----------------------------------|--------------------------------|--------|-------|--------|----------|---------------------------|--------------|
| | Owners' Minority Status | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Do Not Know/NA | 12.5 % | 18.3 % | 9 % | 33.3 % | 8.3 % | 25 % | 14.3 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 30. Other Public Sector (non-Harford County Projects) | | | | | | | |
|---|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | Owners' Minority Status | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| None | 23 | 42 | 41 | 5 | 3 | 4 | 118 |
| | 35.9 % | 59.2 % | 61.2 % | 55.6 % | 25 % | 50 % | 51.1 % |
| 1-10 | 16 | 14 | 13 | 1 | 4 | 2 | 50 |
| | 25 % | 19.7 % | 19.4 % | 11.1 % | 33.3 % | 25 % | 21.6 % |
| 11-25 | 5 | 2 | 6 | 0 | 1 | 0 | 14 |
| | 7.8 % | 2.8 % | 9 % | 0 % | 8.3 % | 0 % | 6.1 % |
| 26-50 | 4 | 2 | 2 | 0 | 0 | 0 | 8 |
| | 6.2 % | 2.8 % | 3 % | 0 % | 0 % | 0 % | 3.5 % |
| 51-100 | 3 | 0 | 1 | 0 | 0 | 0 | 4 |
| | 4.7 % | 0 % | 1.5 % | 0 % | 0 % | 0 % | 1.7 % |
| Over 100 | 5 | 0 | 0 | 0 | 2 | 0 | 7 |
| | 7.8 % | 0 % | 0 % | 0 % | 16.7 % | 0 % | 3 % |
| Do Not Know/NA | 8 | 11 | 4 | 3 | 2 | 2 | 30 |
| | 12.5 % | 15.5 % | 6 % | 33.3 % | 16.7 % | 25 % | 13 % |

Table 30. Other Public Sector (non-Harford County Projects)

| | Owners' Minority Status | | | | | | |
|--------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 31. From July 1, 2016, through June 30, 2021, how many times has your company submitted bids or proposals for projects as a subcontractor on: [Harford County Government Projects]

| | Owners' Minority Status | | | | | | |
|-----------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| None | 46 | 55 | 50 | 6 | 7 | 5 | 169 |
| | 71.9 % | 77.5 % | 74.6 % | 66.7 % | 58.3 % | 62.5 % | 73.2 % |
| 1-10 | 9 | 3 | 8 | 0 | 3 | 1 | 24 |
| | 14.1 % | 4.2 % | 11.9 % | 0 % | 25 % | 12.5 % | 10.4 % |
| 11-25 | 2 | 2 | 2 | 0 | 0 | 0 | 6 |
| | 3.1 % | 2.8 % | 3 % | 0 % | 0 % | 0 % | 2.6 % |
| 26-50 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| | 1.6 % | 0 % | 1.5 % | 0 % | 0 % | 0 % | 0.9 % |
| 51-100 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1.6 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0.4 % |
| Over 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| Do Not Know/NA | 5 | 11 | 6 | 3 | 2 | 2 | 29 |
| | 7.8 % | 15.5 % | 9 % | 33.3 % | 16.7 % | 25 % | 12.6 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 32. Private Sector Projects

| Responses | <i>Owners' Minority Status</i> | | | | | | <i>Total</i> |
|-----------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| None | 32 | 40 | 30 | 5 | 3 | 2 | 112 |
| | 50 % | 56.3 % | 44.8 % | 55.6 % | 25 % | 25 % | 48.5 % |
| 1-10 | 7 | 10 | 19 | 1 | 4 | 4 | 45 |
| | 10.9 % | 14.1 % | 28.4 % | 11.1 % | 33.3 % | 50 % | 19.5 % |
| 11-25 | 6 | 4 | 6 | 0 | 1 | 0 | 17 |
| | 9.4 % | 5.6 % | 9 % | 0 % | 8.3 % | 0 % | 7.4 % |
| 26-50 | 4 | 1 | 3 | 0 | 2 | 0 | 10 |
| | 6.2 % | 1.4 % | 4.5 % | 0 % | 16.7 % | 0 % | 4.3 % |
| 51-100 | 4 | 1 | 1 | 0 | 0 | 0 | 6 |
| | 6.2 % | 1.4 % | 1.5 % | 0 % | 0 % | 0 % | 2.6 % |
| Over 100 | 3 | 3 | 1 | 0 | 0 | 0 | 7 |
| | 4.7 % | 4.2 % | 1.5 % | 0 % | 0 % | 0 % | 3 % |
| Do Not Know/NA | 8 | 12 | 7 | 3 | 2 | 2 | 34 |
| | 12.5 % | 16.9 % | 10.4 % | 33.3 % | 16.7 % | 25 % | 14.7 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 33. Other Public Sector (non-Harford County Projects)

| | Owners' Minority Status | | | | | | |
|-----------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| None | 33 | 41 | 31 | 4 | 2 | 3 | 114 |
| | 51.6 % | 57.7 % | 46.3 % | 44.4 % | 16.7 % | 37.5 % | 49.4 % |
| 1-10 | 11 | 11 | 20 | 3 | 1 | 3 | 49 |
| | 17.2 % | 15.5 % | 29.9 % | 33.3 % | 8.3 % | 37.5 % | 21.2 % |
| 11-25 | 3 | 1 | 5 | 0 | 2 | 0 | 11 |
| | 4.7 % | 1.4 % | 7.5 % | 0 % | 16.7 % | 0 % | 4.8 % |
| 26-50 | 3 | 4 | 1 | 0 | 2 | 0 | 10 |
| | 4.7 % | 5.6 % | 1.5 % | 0 % | 16.7 % | 0 % | 4.3 % |
| 51-100 | 2 | 0 | 3 | 0 | 0 | 0 | 5 |
| | 3.1 % | 0 % | 4.5 % | 0 % | 0 % | 0 % | 2.2 % |
| Over 100 | 4 | 3 | 2 | 0 | 2 | 0 | 11 |
| | 6.2 % | 4.2 % | 3 % | 0 % | 16.7 % | 0 % | 4.8 % |
| Do Not Know/NA | 8 | 11 | 5 | 2 | 3 | 2 | 31 |
| | 12.5 % | 15.5 % | 7.5 % | 22.2 % | 25 % | 25 % | 13.4 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 34. From July 1, 2016, through June 30, 2021, how many times has your company been awarded contracts to perform as a subcontractor: [Harford County Government Projects]

| | Owners' Minority Status | | | | | | |
|-------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| None | 48 | 53 | 58 | 5 | 11 | 5 | 180 |

Table 34. From July 1, 2016, through June 30, 2021, how many times has your company been awarded contracts to perform as a subcontractor: [Harford County Government Projects]

| | Owners' Minority Status | | | | | | |
|-----------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| | 75 % | 74.6 % | 86.6 % | 55.6 % | 91.7 % | 62.5 % | 77.9 % |
| 1-10 | 9 | 2 | 2 | 1 | 0 | 0 | 14 |
| | 14.1 % | 2.8 % | 3 % | 11.1 % | 0 % | 0 % | 6.1 % |
| 11-25 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| | 1.6 % | 1.4 % | 0 % | 0 % | 0 % | 0 % | 0.9 % |
| 26-50 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1.6 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0.4 % |
| 51-100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| Over 100 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 12.5 % | 0.4 % |
| Do Not Know/NA | 5 | 15 | 7 | 3 | 1 | 2 | 33 |
| | 7.8 % | 21.1 % | 10.4 % | 33.3 % | 8.3 % | 25 % | 14.3 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 35. Private Sector Projects

| | Owners' Minority Status | | | | | | |
|-------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| None | 35 | 39 | 35 | 5 | 5 | 3 | 122 |
| | 54.7 % | 54.9 % | 52.2 % | 55.6 % | 41.7 % | 37.5 % | 52.8 % |

| Table 35. Private Sector Projects | | | | | | | |
|-----------------------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| 1-10 | 6 | 12 | 20 | 1 | 3 | 2 | 44 |
| | 9.4 % | 16.9 % | 29.9 % | 11.1 % | 25 % | 25 % | 19 % |
| 11-25 | 6 | 2 | 4 | 0 | 2 | 0 | 14 |
| | 9.4 % | 2.8 % | 6 % | 0 % | 16.7 % | 0 % | 6.1 % |
| 26-50 | 3 | 0 | 2 | 0 | 1 | 0 | 6 |
| | 4.7 % | 0 % | 3 % | 0 % | 8.3 % | 0 % | 2.6 % |
| 51-100 | 2 | 1 | 0 | 0 | 0 | 0 | 3 |
| | 3.1 % | 1.4 % | 0 % | 0 % | 0 % | 0 % | 1.3 % |
| Over 100 | 4 | 3 | 0 | 0 | 0 | 1 | 8 |
| | 6.2 % | 4.2 % | 0 % | 0 % | 0 % | 12.5 % | 3.5 % |
| Do Not Know/NA | 8 | 14 | 6 | 3 | 1 | 2 | 34 |
| | 12.5 % | 19.7 % | 9 % | 33.3 % | 8.3 % | 25 % | 14.7 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 36. Other Public Sector (non-Harford County Projects) | | | | | | | |
|---|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| None | 34 | 39 | 37 | 4 | 4 | 3 | 121 |
| | 53.1 % | 54.9 % | 55.2 % | 44.4 % | 33.3 % | 37.5 % | 52.4 % |
| 1-10 | 12 | 13 | 19 | 3 | 1 | 2 | 50 |

Table 36. Other Public Sector (non-Harford County Projects)

| | Owners' Minority Status | | | | | | |
|-----------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| | 18.8 % | 18.3 % | 28.4 % | 33.3 % | 8.3 % | 25 % | 21.6 % |
| 11-25 | 3 | 1 | 4 | 0 | 3 | 0 | 11 |
| | 4.7 % | 1.4 % | 6 % | 0 % | 25 % | 0 % | 4.8 % |
| 26-50 | 2 | 2 | 0 | 0 | 1 | 0 | 5 |
| | 3.1 % | 2.8 % | 0 % | 0 % | 8.3 % | 0 % | 2.2 % |
| 51-100 | 2 | 0 | 2 | 0 | 0 | 0 | 4 |
| | 3.1 % | 0 % | 3 % | 0 % | 0 % | 0 % | 1.7 % |
| Over 100 | 4 | 3 | 0 | 0 | 1 | 1 | 9 |
| | 6.2 % | 4.2 % | 0 % | 0 % | 8.3 % | 12.5 % | 3.9 % |
| Do Not Know/NA | 7 | 13 | 5 | 2 | 2 | 2 | 31 |
| | 10.9 % | 18.3 % | 7.5 % | 22.2 % | 16.7 % | 25 % | 13.4 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 37. The following is a list of things that may prevent companies from bidding or obtaining work on a project. In your experience, have any of the following been a barrier to your firm obtaining work on projects for Harford County? (Check all that apply) [Pre-qualification requirements]

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 56 | 64 | 51 | 6 | 10 | 6 | 193 |
| | 87.5 % | 90.1 % | 76.1 % | 66.7 % | 83.3 % | 75 % | 83.5 % |
| Selected | 8 | 7 | 16 | 3 | 2 | 2 | 38 |

Table 37. The following is a list of things that may prevent companies from bidding or obtaining work on a project. In your experience, have any of the following been a barrier to your firm obtaining work on projects for Harford County? (Check all that apply) [Pre-qualification requirements]

| | Owners' Minority Status | | | | | | |
|--------------|--------------------------------|-------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| | 12.5 % | 9.9 % | 23.9 % | 33.3 % | 16.7 % | 25 % | 16.5 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 38. Performance bond requirements

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 59 | 70 | 56 | 7 | 12 | 7 | 211 |
| | 92.2 % | 98.6 % | 83.6 % | 77.8 % | 100 % | 87.5 % | 91.3 % |
| Selected | 5 | 1 | 11 | 2 | 0 | 1 | 20 |
| | 7.8 % | 1.4 % | 16.4 % | 22.2 % | 0 % | 12.5 % | 8.7 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 39. Excessive paperwork

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 55 | 62 | 51 | 6 | 10 | 7 | 191 |
| | 85.9 % | 87.3 % | 76.1 % | 66.7 % | 83.3 % | 87.5 % | 82.7 % |
| Selected | 9 | 9 | 16 | 3 | 2 | 1 | 40 |

| Table 39. Excessive paperwork | | | | | | | |
|-------------------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| | 14.1 % | 12.7 % | 23.9 % | 33.3 % | 16.7 % | 12.5 % | 17.3 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 40. Bid bond requirements | | | | | | | |
|---------------------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 59 | 69 | 56 | 8 | 11 | 8 | 211 |
| | 92.2 % | 97.2 % | 83.6 % | 88.9 % | 91.7 % | 100 % | 91.3 % |
| Selected | 5 | 2 | 11 | 1 | 1 | 0 | 20 |
| | 7.8 % | 2.8 % | 16.4 % | 11.1 % | 8.3 % | 0 % | 8.7 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 41. Financing | | | | | | | |
|---------------------|--------------------------------|--------|--------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 63 | 67 | 56 | 9 | 12 | 6 | 213 |
| | 98.4 % | 94.4 % | 83.6 % | 100 % | 100 % | 75 % | 92.2 % |
| Selected | 1 | 4 | 11 | 0 | 0 | 2 | 18 |
| | 1.6 % | 5.6 % | 16.4 % | 0 % | 0 % | 25 % | 7.8 % |

| Table 41. Financing | | | | | | | |
|---------------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 42. Insurance requirements | | | | | | | |
|----------------------------------|--------------------------------|--------|--------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 60 | 69 | 62 | 9 | 12 | 8 | 220 |
| | 93.8 % | 97.2 % | 92.5 % | 100 % | 100 % | 100 % | 95.2 % |
| Selected | 4 | 2 | 5 | 0 | 0 | 0 | 11 |
| | 6.2 % | 2.8 % | 7.5 % | 0 % | 0 % | 0 % | 4.8 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 43. Bid specifications | | | | | | | |
|------------------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 57 | 67 | 53 | 7 | 9 | 6 | 199 |
| | 89.1 % | 94.4 % | 79.1 % | 77.8 % | 75 % | 75 % | 86.1 % |
| Selected | 7 | 4 | 14 | 2 | 3 | 2 | 32 |
| | 10.9 % | 5.6 % | 20.9 % | 22.2 % | 25 % | 25 % | 13.9 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 44. Lack of access to competitive supplier pricing | | | | | | | |
|--|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 62 | 70 | 53 | 7 | 10 | 7 | 209 |
| | 96.9 % | 98.6 % | 79.1 % | 77.8 % | 83.3 % | 87.5 % | 90.5 % |
| Selected | 2 | 1 | 14 | 2 | 2 | 1 | 22 |
| | 3.1 % | 1.4 % | 20.9 % | 22.2 % | 16.7 % | 12.5 % | 9.5 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 45. Limited time given to prepare bid package or quote | | | | | | | |
|--|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 61 | 64 | 58 | 7 | 9 | 7 | 206 |
| | 95.3 % | 90.1 % | 86.6 % | 77.8 % | 75 % | 87.5 % | 89.2 % |
| Selected | 3 | 7 | 9 | 2 | 3 | 1 | 25 |
| | 4.7 % | 9.9 % | 13.4 % | 22.2 % | 25 % | 12.5 % | 10.8 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 46. Limited knowledge of purchasing/contracting policies and procedures | | | | | | | |
|---|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 55 | 58 | 53 | 8 | 12 | 4 | 190 |
| | 85.9 % | 81.7 % | 79.1 % | 88.9 % | 100 % | 50 % | 82.3 % |
| Selected | 9 | 13 | 14 | 1 | 0 | 4 | 41 |
| | 14.1 % | 18.3 % | 20.9 % | 11.1 % | 0 % | 50 % | 17.7 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 47. Language Barriers | | | | | | | |
|-----------------------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 63 | 71 | 67 | 9 | 12 | 8 | 230 |
| | 98.4 % | 100 % | 100 % | 100 % | 100 % | 100 % | 99.6 % |
| Selected | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1.6 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0.4 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 48. Lack of experience | | | | | | | |
|------------------------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| | 57 | 66 | 59 | 8 | 11 | 7 | 208 |

Table 48. Lack of experience

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|-------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 89.1 % | 93 % | 88.1 % | 88.9 % | 91.7 % | 87.5 % | 90 % |
| Selected | 7 | 5 | 8 | 1 | 1 | 1 | 23 |
| | 10.9 % | 7 % | 11.9 % | 11.1 % | 8.3 % | 12.5 % | 10 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 49. Lack of personnel

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|--------|--------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 58 | 65 | 62 | 9 | 12 | 8 | 214 |
| | 90.6 % | 91.5 % | 92.5 % | 100 % | 100 % | 100 % | 92.6 % |
| Selected | 6 | 6 | 5 | 0 | 0 | 0 | 17 |
| | 9.4 % | 8.5 % | 7.5 % | 0 % | 0 % | 0 % | 7.4 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 50. Contract too large

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 55 | 65 | 60 | 8 | 10 | 7 | 205 |
| | 85.9 % | 91.5 % | 89.6 % | 88.9 % | 83.3 % | 87.5 % | 88.7 % |

| Table 50. Contract too large | | | | | | | |
|------------------------------|--------------------------------|-------|--------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Selected | 9 | 6 | 7 | 1 | 2 | 1 | 26 |
| | 14.1 % | 8.5 % | 10.4 % | 11.1 % | 16.7 % | 12.5 % | 11.3 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 51. Contract too expensive to bid | | | | | | | |
|---|--------------------------------|--------|--------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 59 | 65 | 59 | 9 | 10 | 8 | 210 |
| | 92.2 % | 91.5 % | 88.1 % | 100 % | 83.3 % | 100 % | 90.9 % |
| Selected | 5 | 6 | 8 | 0 | 2 | 0 | 21 |
| | 7.8 % | 8.5 % | 11.9 % | 0 % | 16.7 % | 0 % | 9.1 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 52. Selection process | | | | | | | |
|-----------------------------|--------------------------------|--------|--------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 57 | 62 | 60 | 9 | 10 | 7 | 205 |
| | 89.1 % | 87.3 % | 89.6 % | 100 % | 83.3 % | 87.5 % | 88.7 % |
| Selected | 7 | 9 | 7 | 0 | 2 | 1 | 26 |

| Table 52. Selection process | | | | | | | |
|-----------------------------|--------------------------------|--------|--------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| | 10.9 % | 12.7 % | 10.4 % | 0 % | 16.7 % | 12.5 % | 11.3 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 53. Not a Union Member | | | | | | | |
|------------------------------|--------------------------------|--------|-------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 56 | 64 | 61 | 6 | 11 | 7 | 205 |
| | 87.5 % | 90.1 % | 91 % | 66.7 % | 91.7 % | 87.5 % | 88.7 % |
| Selected | 8 | 7 | 6 | 3 | 1 | 1 | 26 |
| | 12.5 % | 9.9 % | 9 % | 33.3 % | 8.3 % | 12.5 % | 11.3 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 54. Not certified | | | | | | | |
|-------------------------|--------------------------------|--------|-------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 59 | 68 | 65 | 9 | 12 | 8 | 221 |
| | 92.2 % | 95.8 % | 97 % | 100 % | 100 % | 100 % | 95.7 % |
| Selected | 5 | 3 | 2 | 0 | 0 | 0 | 10 |
| | 7.8 % | 4.2 % | 3 % | 0 % | 0 % | 0 % | 4.3 % |

| Table 54. Not certified | | | | | | | |
|-------------------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 55. Unfair competition with large firms | | | | | | | |
|---|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 54 | 59 | 44 | 7 | 6 | 5 | 175 |
| | 84.4 % | 83.1 % | 65.7 % | 77.8 % | 50 % | 62.5 % | 75.8 % |
| Selected | 10 | 12 | 23 | 2 | 6 | 3 | 56 |
| | 15.6 % | 16.9 % | 34.3 % | 22.2 % | 50 % | 37.5 % | 24.2 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 56. Other, please specify | | | | | | | |
|---------------------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 40 | 39 | 53 | 7 | 8 | 6 | 153 |
| | 62.5 % | 54.9 % | 79.1 % | 77.8 % | 66.7 % | 75 % | 66.2 % |
| Selected | 24 | 32 | 14 | 2 | 4 | 2 | 78 |
| | 37.5 % | 45.1 % | 20.9 % | 22.2 % | 33.3 % | 25 % | 33.8 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 57. What is the amount of time that it typically takes to receive payment, from the date you submit your invoice, from Harford County for your services on Harford County projects?

| | Owners' Minority Status | | | | | | |
|------------------------|--------------------------------|--------|--------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| 30 days or less | 8 | 3 | 2 | 0 | 0 | 0 | 13 |
| | 33.3 % | 17.6 % | 16.7 % | 0 % | 0 % | 0 % | 21.7 % |
| 31-60 days | 10 | 4 | 0 | 0 | 0 | 0 | 14 |
| | 41.7 % | 23.5 % | 0 % | 0 % | 0 % | 0 % | 23.3 % |
| 61-90 days | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| | 4.2 % | 0 % | 8.3 % | 0 % | 0 % | 0 % | 3.3 % |
| 91-120 days | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| | 4.2 % | 0 % | 8.3 % | 0 % | 0 % | 0 % | 3.3 % |
| Over 120 days | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| Do Not Know/NA | 4 | 10 | 8 | 3 | 2 | 2 | 29 |
| | 16.7 % | 58.8 % | 66.7 % | 100 % | 100 % | 100 % | 48.3 % |
| Total | 24 | 17 | 12 | 3 | 2 | 2 | 60 |

Table 58. What is the amount of time that it typically takes to receive payment, from the date you submit your invoice, from the prime contractor for your services on Harford County projects?

| | Owners' Minority Status | | | | | | |
|-----------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| | 3 | 2 | 1 | 1 | 0 | 1 | 8 |

Table 58. What is the amount of time that it typically takes to receive payment, from the date you submit your invoice, from the prime contractor for your services on Harford County projects?

| | Owners' Minority Status | | | | | | |
|------------------------|--------------------------------|--------|--------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| 30 days or less | 18.8 % | 11.1 % | 11.1 % | 25 % | 0 % | 33.3 % | 15.7 % |
| 31-60 days | 7 | 3 | 1 | 0 | 0 | 0 | 11 |
| | 43.8 % | 16.7 % | 11.1 % | 0 % | 0 % | 0 % | 21.6 % |
| 61-90 days | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| | 6.2 % | 5.6 % | 0 % | 0 % | 0 % | 0 % | 3.9 % |
| 91-120 days | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| | 0 % | 5.6 % | 11.1 % | 0 % | 0 % | 0 % | 3.9 % |
| Over 120 days | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| Do Not Know/NA | 5 | 11 | 6 | 3 | 1 | 2 | 28 |
| | 31.2 % | 61.1 % | 66.7 % | 75 % | 100 % | 66.7 % | 54.9 % |
| Total | 16 | 18 | 9 | 4 | 1 | 3 | 51 |

Table 59. Is your company a certified Minority, Woman, Disadvantaged or Small business?

| | Owners' Minority Status | | | | | | |
|------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Yes | 30 | 38 | 57 | 6 | 8 | 4 | 143 |
| | 46.9 % | 53.5 % | 85.1 % | 66.7 % | 66.7 % | 50 % | 61.9 % |
| No | 34 | 33 | 10 | 3 | 4 | 4 | 88 |

| Table 59. Is your company a certified Minority, Woman, Disadvantaged or Small business? | | | | | | | |
|---|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| | 53.1 % | 46.5 % | 14.9 % | 33.3 % | 33.3 % | 50 % | 38.1 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 60. What is your certification? (Check all that apply) [MBE (Minority Business Enterprise)] | | | | | | | |
|---|--------------------------------|--------|--------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Yes | 1 | 13 | 51 | 6 | 8 | 2 | 81 |
| | 3.3 % | 34.2 % | 89.5 % | 100 % | 100 % | 50 % | 56.6 % |
| No | 22 | 20 | 5 | 0 | 0 | 2 | 49 |
| | 73.3 % | 52.6 % | 8.8 % | 0 % | 0 % | 50 % | 34.3 % |
| N/A | 7 | 5 | 1 | 0 | 0 | 0 | 13 |
| | 23.3 % | 13.2 % | 1.8 % | 0 % | 0 % | 0 % | 9.1 % |
| Total | 30 | 38 | 57 | 6 | 8 | 4 | 143 |

| Table 61. WBE (Women Business Enterprise) | | | | | | | |
|---|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Yes | 0 | 31 | 18 | 2 | 3 | 3 | 57 |
| | 0 % | 81.6 % | 31.6 % | 33.3 % | 37.5 % | 75 % | 39.9 % |

Table 61. WBE (Women Business Enterprise)

| | Owners' Minority Status | | | | | | |
|--------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| No | 22 | 7 | 32 | 4 | 3 | 1 | 69 |
| | 73.3 % | 18.4 % | 56.1 % | 66.7 % | 37.5 % | 25 % | 48.3 % |
| N/A | 8 | 0 | 7 | 0 | 2 | 0 | 17 |
| | 26.7 % | 0 % | 12.3 % | 0 % | 25 % | 0 % | 11.9 % |
| Total | 30 | 38 | 57 | 6 | 8 | 4 | 143 |

Table 62. DBE (Disadvantaged Business Enterprise)

| | Owners' Minority Status | | | | | | |
|--------------|--------------------------------|--------|--------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Yes | 0 | 15 | 38 | 3 | 6 | 0 | 62 |
| | 0 % | 39.5 % | 66.7 % | 50 % | 75 % | 0 % | 43.4 % |
| No | 24 | 17 | 15 | 3 | 1 | 3 | 63 |
| | 80 % | 44.7 % | 26.3 % | 50 % | 12.5 % | 75 % | 44.1 % |
| N/A | 6 | 6 | 4 | 0 | 1 | 1 | 18 |
| | 20 % | 15.8 % | 7 % | 0 % | 12.5 % | 25 % | 12.6 % |
| Total | 30 | 38 | 57 | 6 | 8 | 4 | 143 |

Table 63. SBE (Small Business Enterprise)

| | Owners' Minority Status | | | | | | |
|--------------|--------------------------------|--------|--------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Yes | 26 | 27 | 41 | 6 | 7 | 3 | 110 |
| | 86.7 % | 71.1 % | 71.9 % | 100 % | 87.5 % | 75 % | 76.9 % |
| No | 3 | 8 | 15 | 0 | 0 | 0 | 26 |
| | 10 % | 21.1 % | 26.3 % | 0 % | 0 % | 0 % | 18.2 % |
| N/A | 1 | 3 | 1 | 0 | 1 | 1 | 7 |
| | 3.3 % | 7.9 % | 1.8 % | 0 % | 12.5 % | 25 % | 4.9 % |
| Total | 30 | 38 | 57 | 6 | 8 | 4 | 143 |

Table 64. Other, please specify

| | Owners' Minority Status | | | | | | |
|--------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Yes | 4 | 7 | 11 | 1 | 2 | 0 | 25 |
| | 23.5 % | 43.8 % | 36.7 % | 33.3 % | 33.3 % | 0 % | 34.2 % |
| No | 6 | 1 | 6 | 0 | 0 | 0 | 13 |
| | 35.3 % | 6.2 % | 20 % | 0 % | 0 % | 0 % | 17.8 % |
| N/A | 7 | 8 | 13 | 2 | 4 | 1 | 35 |
| | 41.2 % | 50 % | 43.3 % | 66.7 % | 66.7 % | 100 % | 47.9 % |
| Total | 17 | 16 | 30 | 3 | 6 | 1 | 73 |

Table 65. Why is your company not certified as a Minority, Woman, Disadvantaged or Small business? (Please check all that apply) [I do not understand the certification process]

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|--------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 26 | 19 | 4 | 3 | 3 | 3 | 58 |
| | 76.5 % | 57.6 % | 40 % | 100 % | 75 % | 75 % | 65.9 % |
| Selected | 8 | 14 | 6 | 0 | 1 | 1 | 30 |
| | 23.5 % | 42.4 % | 60 % | 0 % | 25 % | 25 % | 34.1 % |
| Total | 34 | 33 | 10 | 3 | 4 | 4 | 88 |

Table 66. We do not meet one or more of the requirements for certification

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|--------|-------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 15 | 31 | 10 | 2 | 3 | 2 | 63 |
| | 44.1 % | 93.9 % | 100 % | 66.7 % | 75 % | 50 % | 71.6 % |
| Selected | 19 | 2 | 0 | 1 | 1 | 2 | 25 |
| | 55.9 % | 6.1 % | 0 % | 33.3 % | 25 % | 50 % | 28.4 % |
| Total | 34 | 33 | 10 | 3 | 4 | 4 | 88 |

Table 67. Certification is too expensive

| | Owners' Minority Status | | | | | | |
|-----------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| | 33 | 32 | 7 | 3 | 4 | 4 | 83 |

| Table 67. Certification is too expensive | | | | | | | |
|--|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 97.1 % | 97 % | 70 % | 100 % | 100 % | 100 % | 94.3 % |
| Selected | 1 | 1 | 3 | 0 | 0 | 0 | 5 |
| | 2.9 % | 3 % | 30 % | 0 % | 0 % | 0 % | 5.7 % |
| Total | 34 | 33 | 10 | 3 | 4 | 4 | 88 |

| Table 68. I do not want governmental agencies to have information about my company | | | | | | | |
|--|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 32 | 33 | 10 | 3 | 4 | 4 | 86 |
| | 94.1 % | 100 % | 100 % | 100 % | 100 % | 100 % | 97.7 % |
| Selected | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 5.9 % | 0 % | 0 % | 0 % | 0 % | 0 % | 2.3 % |
| Total | 34 | 33 | 10 | 3 | 4 | 4 | 88 |

| Table 69. I have not had time to get certified/the process is too time-consuming | | | | | | | |
|--|--------------------------------|--------|-------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 33 | 31 | 8 | 2 | 3 | 3 | 80 |
| | 97.1 % | 93.9 % | 80 % | 66.7 % | 75 % | 75 % | 90.9 % |

| Table 69. I have not had time to get certified/the process is too time-consuming | | | | | | | |
|--|--------------------------------|-------|-------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Selected | 1 | 2 | 2 | 1 | 1 | 1 | 8 |
| | 2.9 % | 6.1 % | 20 % | 33.3 % | 25 % | 25 % | 9.1 % |
| Total | 34 | 33 | 10 | 3 | 4 | 4 | 88 |

| Table 70. Certification does not benefit and/or will negatively impact my company | | | | | | | |
|---|--------------------------------|--------|-------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 32 | 28 | 9 | 3 | 4 | 4 | 80 |
| | 94.1 % | 84.8 % | 90 % | 100 % | 100 % | 100 % | 90.9 % |
| Selected | 2 | 5 | 1 | 0 | 0 | 0 | 8 |
| | 5.9 % | 15.2 % | 10 % | 0 % | 0 % | 0 % | 9.1 % |
| Total | 34 | 33 | 10 | 3 | 4 | 4 | 88 |

| Table 71. Do not understand how certification can benefit my firm | | | | | | | |
|---|--------------------------------|--------|-------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 26 | 16 | 4 | 1 | 2 | 3 | 52 |
| | 76.5 % | 48.5 % | 40 % | 33.3 % | 50 % | 75 % | 59.1 % |
| Selected | 8 | 17 | 6 | 2 | 2 | 1 | 36 |

| Table 71. Do not understand how certification can benefit my firm | | | | | | | |
|---|--------------------------------|--------|-------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| | 23.5 % | 51.5 % | 60 % | 66.7 % | 50 % | 25 % | 40.9 % |
| Total | 34 | 33 | 10 | 3 | 4 | 4 | 88 |

| Table 72. Between July 1, 2016, through June 30, 2021, did your company apply and receive any of the following? [Business start-up loan?] | | | | | | | |
|---|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Never Applied | 61 | 67 | 59 | 8 | 12 | 6 | 213 |
| | 95.3 % | 94.4 % | 88.1 % | 88.9 % | 100 % | 75 % | 92.2 % |
| Applied, Never Approved | 0 | 1 | 5 | 0 | 0 | 1 | 7 |
| | 0 % | 1.4 % | 7.5 % | 0 % | 0 % | 12.5 % | 3 % |
| Applied, Some Approved | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| | 0 % | 0 % | 0 % | 11.1 % | 0 % | 0 % | 0.4 % |
| Applied, All Approved | 3 | 3 | 3 | 0 | 0 | 1 | 10 |
| | 4.7 % | 4.2 % | 4.5 % | 0 % | 0 % | 12.5 % | 4.3 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 73. Operating capital loan? | | | | | | | |
|-----------------------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | Owners' Minority Status | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Never Applied | 46 | 48 | 47 | 5 | 11 | 7 | 164 |
| | 71.9 % | 67.6 % | 70.1 % | 55.6 % | 91.7 % | 87.5 % | 71 % |
| Applied, Never Approved | 0 | 2 | 9 | 0 | 0 | 0 | 11 |
| | 0 % | 2.8 % | 13.4 % | 0 % | 0 % | 0 % | 4.8 % |
| Applied, Some Approved | 3 | 4 | 6 | 2 | 0 | 0 | 15 |
| | 4.7 % | 5.6 % | 9 % | 22.2 % | 0 % | 0 % | 6.5 % |
| Applied, All Approved | 15 | 17 | 5 | 2 | 1 | 1 | 41 |
| | 23.4 % | 23.9 % | 7.5 % | 22.2 % | 8.3 % | 12.5 % | 17.7 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 74. Equipment loan? | | | | | | | |
|--------------------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | Owners' Minority Status | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Never Applied | 42 | 56 | 57 | 6 | 8 | 6 | 175 |
| | 65.6 % | 78.9 % | 85.1 % | 66.7 % | 66.7 % | 75 % | 75.8 % |
| Applied, Never Approved | 0 | 0 | 6 | 0 | 0 | 0 | 6 |
| | 0 % | 0 % | 9 % | 0 % | 0 % | 0 % | 2.6 % |
| Applied, Some Approved | 2 | 2 | 2 | 1 | 0 | 1 | 8 |
| | 3.1 % | 2.8 % | 3 % | 11.1 % | 0 % | 12.5 % | 3.5 % |
| | 20 | 13 | 2 | 2 | 4 | 1 | 42 |

| Table 74. Equipment loan? | | | | | | | |
|------------------------------|--------------------------------|--------|-------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Applied, All Approved | 31.2 % | 18.3 % | 3 % | 22.2 % | 33.3 % | 12.5 % | 18.2 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

| Table 75. Commercial/Professional liability insurance? | | | | | | | |
|--|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Never Applied | 21 | 29 | 24 | 2 | 4 | 4 | 84 |
| | 32.8 % | 40.8 % | 35.8 % | 22.2 % | 33.3 % | 50 % | 36.4 % |
| Applied, Never Approved | 1 | 0 | 1 | 0 | 0 | 1 | 3 |
| | 1.6 % | 0 % | 1.5 % | 0 % | 0 % | 12.5 % | 1.3 % |
| Applied, Some Approved | 0 | 1 | 6 | 1 | 0 | 0 | 8 |
| | 0 % | 1.4 % | 9 % | 11.1 % | 0 % | 0 % | 3.5 % |
| Applied, All Approved | 42 | 41 | 36 | 6 | 8 | 3 | 136 |
| | 65.6 % | 57.7 % | 53.7 % | 66.7 % | 66.7 % | 37.5 % | 58.9 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 76. PPP (Paycheck Protection Program Loan)

| | Owners' Minority Status | | | | | | |
|--------------------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Never Applied | 18 | 19 | 31 | 4 | 3 | 6 | 81 |
| | 28.1 % | 26.8 % | 46.3 % | 44.4 % | 25 % | 75 % | 35.1 % |
| Applied, Never Approved | 1 | 1 | 6 | 0 | 0 | 1 | 9 |
| | 1.6 % | 1.4 % | 9 % | 0 % | 0 % | 12.5 % | 3.9 % |
| Applied, Some Approved | 3 | 5 | 4 | 1 | 0 | 0 | 13 |
| | 4.7 % | 7 % | 6 % | 11.1 % | 0 % | 0 % | 5.6 % |
| Applied, All Approved | 42 | 46 | 26 | 4 | 9 | 1 | 128 |
| | 65.6 % | 64.8 % | 38.8 % | 44.4 % | 75 % | 12.5 % | 55.4 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 77. What was the largest commercial loan you received from July 1, 2016, through June 30, 2021?

| | Owners' Minority Status | | | | | | |
|------------------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| \$50,000 or less | 9 | 18 | 19 | 1 | 2 | 1 | 50 |
| | 14.1 % | 25.4 % | 28.4 % | 11.1 % | 16.7 % | 12.5 % | 21.6 % |
| \$50,001 - \$100,000 | 5 | 1 | 2 | 0 | 2 | 2 | 12 |
| | 7.8 % | 1.4 % | 3 % | 0 % | 16.7 % | 25 % | 5.2 % |
| \$100,001 - \$300,000 | 9 | 9 | 8 | 2 | 2 | 1 | 31 |
| | 14.1 % | 12.7 % | 11.9 % | 22.2 % | 16.7 % | 12.5 % | 13.4 % |

Table 77. What was the largest commercial loan you received from July 1, 2016, through June 30, 2021?

| Responses | <i>Owners' Minority Status</i> | | | | | | <i>Total</i> |
|------------------------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| \$300,001 - \$500,000 | 7 | 5 | 2 | 2 | 0 | 0 | 16 |
| | 10.9 % | 7 % | 3 % | 22.2 % | 0 % | 0 % | 6.9 % |
| \$500,001 - \$1,000,000 | 2 | 4 | 2 | 0 | 0 | 0 | 8 |
| | 3.1 % | 5.6 % | 3 % | 0 % | 0 % | 0 % | 3.5 % |
| \$1,000,001 - \$3,000,000 | 3 | 2 | 1 | 0 | 1 | 0 | 7 |
| | 4.7 % | 2.8 % | 1.5 % | 0 % | 8.3 % | 0 % | 3 % |
| \$3,000,001 - \$5,000,000 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1.6 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0.4 % |
| \$5,000,001 to \$10,000,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| Over \$10,000,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| Do Not Know/NA | 28 | 32 | 33 | 4 | 5 | 4 | 106 |
| | 43.8 % | 45.1 % | 49.3 % | 44.4 % | 41.7 % | 50 % | 45.9 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 78. How many times have you been denied a commercial (business) bank loan from July 1, 2016, through June 30, 2021?

| Responses | <i>Owners' Minority Status</i> | | | | | | <i>Total</i> |
|-----------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | |
| None | 50 | 46 | 35 | 4 | 11 | 3 | 149 |
| | 78.1 % | 64.8 % | 52.2 % | 44.4 % | 91.7 % | 37.5 % | 64.5 % |
| 1-10 | 5 | 8 | 18 | 0 | 0 | 1 | 32 |
| | 7.8 % | 11.3 % | 26.9 % | 0 % | 0 % | 12.5 % | 13.9 % |
| 11-25 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| | 0 % | 0 % | 3 % | 0 % | 0 % | 0 % | 0.9 % |
| 26-50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| 51-100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| Over 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| Do Not Know/NA | 9 | 17 | 12 | 5 | 1 | 4 | 48 |
| | 14.1 % | 23.9 % | 17.9 % | 55.6 % | 8.3 % | 50 % | 20.8 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 79. Of the items your company was denied, what was the denial reason? (Please check all that apply) [Business start-up loan?] [Insufficient Documentation]

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 0 | 1 | 5 | 1 | 0 | 1 | 8 |
| | 0 % | 100 % | 100 % | 100 % | 0 % | 100 % | 100 % |
| Selected | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| Total | 0 | 1 | 5 | 1 | 0 | 1 | 8 |

Table 80. Insufficient Business History

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 0 | 0 | 2 | 1 | 0 | 0 | 3 |
| | 0 % | 0 % | 40 % | 100 % | 0 % | 0 % | 37.5 % |
| Selected | 0 | 1 | 3 | 0 | 0 | 1 | 5 |
| | 0 % | 100 % | 60 % | 0 % | 0 % | 100 % | 62.5 % |
| Total | 0 | 1 | 5 | 1 | 0 | 1 | 8 |

Table 81. Confusion about Process

| | Owners' Minority Status | | | | | | |
|-----------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| | 0 | 1 | 4 | 1 | 0 | 1 | 7 |

| Table 81. Confusion about Process | | | | | | | |
|-----------------------------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 0 % | 100 % | 80 % | 100 % | 0 % | 100 % | 87.5 % |
| Selected | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| | 0 % | 0 % | 20 % | 0 % | 0 % | 0 % | 12.5 % |
| Total | 0 | 1 | 5 | 1 | 0 | 1 | 8 |

| Table 82. Credit History | | | | | | | |
|--------------------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 0 | 1 | 1 | 1 | 0 | 1 | 4 |
| | 0 % | 100 % | 20 % | 100 % | 0 % | 100 % | 50 % |
| Selected | 0 | 0 | 4 | 0 | 0 | 0 | 4 |
| | 0 % | 0 % | 80 % | 0 % | 0 % | 0 % | 50 % |
| Total | 0 | 1 | 5 | 1 | 0 | 1 | 8 |

| Table 83. Do Not Know | | | | | | | |
|-----------------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 0 | 1 | 4 | 0 | 0 | 1 | 6 |
| | 0 % | 100 % | 80 % | 0 % | 0 % | 100 % | 75 % |

Table 83. Do Not Know

| | Owners' Minority Status | | | | | | |
|-----------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Selected | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| | 0 % | 0 % | 20 % | 100 % | 0 % | 0 % | 25 % |
| Total | 0 | 1 | 5 | 1 | 0 | 1 | 8 |

Table 84. N/A

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 0 | 1 | 5 | 1 | 0 | 1 | 8 |
| | 0 % | 100 % | 100 % | 100 % | 0 % | 100 % | 100 % |
| Selected | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| Total | 0 | 1 | 5 | 1 | 0 | 1 | 8 |

Table 85. Of the items your company was denied, what was the denial reason? (Please check all that apply) [Operating capital loan?] [Insufficient Documentation]

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|-------|--------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 3 | 6 | 14 | 2 | 0 | 0 | 25 |
| | 100 % | 100 % | 93.3 % | 100 % | 0 % | 0 % | 96.2 % |
| Selected | 0 | 0 | 1 | 0 | 0 | 0 | 1 |

Table 85. Of the items your company was denied, what was the denial reason? (Please check all that apply) [Operating capital loan?] [Insufficient Documentation]

| | Owners' Minority Status | | | | | | |
|--------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| | 0 % | 0 % | 6.7 % | 0 % | 0 % | 0 % | 3.8 % |
| Total | 3 | 6 | 15 | 2 | 0 | 0 | 26 |

Table 86. Insufficient Business History

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|--------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 3 | 4 | 12 | 2 | 0 | 0 | 21 |
| | 100 % | 66.7 % | 80 % | 100 % | 0 % | 0 % | 80.8 % |
| Selected | 0 | 2 | 3 | 0 | 0 | 0 | 5 |
| | 0 % | 33.3 % | 20 % | 0 % | 0 % | 0 % | 19.2 % |
| Total | 3 | 6 | 15 | 2 | 0 | 0 | 26 |

Table 87. Confusion about Process

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|-------|--------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 3 | 6 | 13 | 2 | 0 | 0 | 24 |
| | 100 % | 100 % | 86.7 % | 100 % | 0 % | 0 % | 92.3 % |
| Selected | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| | 0 % | 0 % | 13.3 % | 0 % | 0 % | 0 % | 7.7 % |

| Table 87. Confusion about Process | | | | | | | |
|-----------------------------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Total | 3 | 6 | 15 | 2 | 0 | 0 | 26 |

| Table 88. Credit History | | | | | | | |
|--------------------------|--------------------------------|-------|--------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 2 | 6 | 7 | 2 | 0 | 0 | 17 |
| | 66.7 % | 100 % | 46.7 % | 100 % | 0 % | 0 % | 65.4 % |
| Selected | 1 | 0 | 8 | 0 | 0 | 0 | 9 |
| | 33.3 % | 0 % | 53.3 % | 0 % | 0 % | 0 % | 34.6 % |
| Total | 3 | 6 | 15 | 2 | 0 | 0 | 26 |

| Table 89. Do Not Know | | | | | | | |
|-----------------------|--------------------------------|--------|--------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 3 | 5 | 10 | 0 | 0 | 0 | 18 |
| | 100 % | 83.3 % | 66.7 % | 0 % | 0 % | 0 % | 69.2 % |
| Selected | 0 | 1 | 5 | 2 | 0 | 0 | 8 |
| | 0 % | 16.7 % | 33.3 % | 100 % | 0 % | 0 % | 30.8 % |
| Total | 3 | 6 | 15 | 2 | 0 | 0 | 26 |

| Table 90. N/A | | | | | | | |
|---------------------|--------------------------------|-------|--------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 1 | 3 | 14 | 2 | 0 | 0 | 20 |
| | 33.3 % | 50 % | 93.3 % | 100 % | 0 % | 0 % | 76.9 % |
| Selected | 2 | 3 | 1 | 0 | 0 | 0 | 6 |
| | 66.7 % | 50 % | 6.7 % | 0 % | 0 % | 0 % | 23.1 % |
| Total | 3 | 6 | 15 | 2 | 0 | 0 | 26 |

| Table 91. Of the items your company was denied, what was the denial reason? (Please check all that apply) [Equipment loan?] [Insufficient Documentation] | | | | | | | |
|--|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 2 | 2 | 8 | 1 | 0 | 1 | 14 |
| | 100 % | 100 % | 100 % | 100 % | 0 % | 100 % | 100 % |
| Selected | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0 % |
| Total | 2 | 2 | 8 | 1 | 0 | 1 | 14 |

| Table 92. Insufficient Business History | | | | | | | |
|---|--------------------------------|-------|--------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 2 | 2 | 5 | 1 | 0 | 0 | 10 |
| | 100 % | 100 % | 62.5 % | 100 % | 0 % | 0 % | 71.4 % |
| Selected | 0 | 0 | 3 | 0 | 0 | 1 | 4 |
| | 0 % | 0 % | 37.5 % | 0 % | 0 % | 100 % | 28.6 % |
| Total | 2 | 2 | 8 | 1 | 0 | 1 | 14 |

| Table 93. Confusion about Process | | | | | | | |
|-----------------------------------|--------------------------------|-------|--------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 2 | 2 | 7 | 1 | 0 | 1 | 13 |
| | 100 % | 100 % | 87.5 % | 100 % | 0 % | 100 % | 92.9 % |
| Selected | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| | 0 % | 0 % | 12.5 % | 0 % | 0 % | 0 % | 7.1 % |
| Total | 2 | 2 | 8 | 1 | 0 | 1 | 14 |

| Table 94. Credit History | | | | | | | |
|--------------------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| | 1 | 2 | 2 | 1 | 0 | 1 | 7 |

| Table 94. Credit History | | | | | | | |
|--------------------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 50 % | 100 % | 25 % | 100 % | 0 % | 100 % | 50 % |
| Selected | 1 | 0 | 6 | 0 | 0 | 0 | 7 |
| | 50 % | 0 % | 75 % | 0 % | 0 % | 0 % | 50 % |
| Total | 2 | 2 | 8 | 1 | 0 | 1 | 14 |

| Table 95. Do Not Know | | | | | | | |
|-----------------------|--------------------------------|-------|--------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 2 | 2 | 7 | 0 | 0 | 1 | 12 |
| | 100 % | 100 % | 87.5 % | 0 % | 0 % | 100 % | 85.7 % |
| Selected | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| | 0 % | 0 % | 12.5 % | 100 % | 0 % | 0 % | 14.3 % |
| Total | 2 | 2 | 8 | 1 | 0 | 1 | 14 |

| Table 96. N/A | | | | | | | |
|---------------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 1 | 0 | 8 | 1 | 0 | 1 | 11 |
| | 50 % | 0 % | 100 % | 100 % | 0 % | 100 % | 78.6 % |

Table 96. N/A

| | Owners' Minority Status | | | | | | |
|-----------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Selected | 1 | 2 | 0 | 0 | 0 | 0 | 3 |
| | 50 % | 100 % | 0 % | 0 % | 0 % | 0 % | 21.4 % |
| Total | 2 | 2 | 8 | 1 | 0 | 1 | 14 |

Table 97. Of the items your company was denied, what was the denial reason? (Please check all that apply) [Commercial/Professional liability insurance?] [Insufficient Documentation]

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|-------|--------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 1 | 1 | 6 | 1 | 0 | 1 | 10 |
| | 100 % | 100 % | 85.7 % | 100 % | 0 % | 100 % | 90.9 % |
| Selected | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| | 0 % | 0 % | 14.3 % | 0 % | 0 % | 0 % | 9.1 % |
| Total | 1 | 1 | 7 | 1 | 0 | 1 | 11 |

Table 98. Insufficient Business History

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|-------|--------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 1 | 1 | 5 | 1 | 0 | 1 | 9 |
| | 100 % | 100 % | 71.4 % | 100 % | 0 % | 100 % | 81.8 % |
| Selected | 0 | 0 | 2 | 0 | 0 | 0 | 2 |

| Table 98. Insufficient Business History | | | | | | | |
|---|--------------------------------|-------|--------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| | 0 % | 0 % | 28.6 % | 0 % | 0 % | 0 % | 18.2 % |
| Total | 1 | 1 | 7 | 1 | 0 | 1 | 11 |

| Table 99. Confusion about Process | | | | | | | |
|-----------------------------------|--------------------------------|-------|--------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 1 | 1 | 6 | 1 | 0 | 1 | 10 |
| | 100 % | 100 % | 85.7 % | 100 % | 0 % | 100 % | 90.9 % |
| Selected | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| | 0 % | 0 % | 14.3 % | 0 % | 0 % | 0 % | 9.1 % |
| Total | 1 | 1 | 7 | 1 | 0 | 1 | 11 |

| Table 100. Credit History | | | | | | | |
|---------------------------|--------------------------------|-------|--------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 1 | 1 | 6 | 1 | 0 | 1 | 10 |
| | 100 % | 100 % | 85.7 % | 100 % | 0 % | 100 % | 90.9 % |
| Selected | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| | 0 % | 0 % | 14.3 % | 0 % | 0 % | 0 % | 9.1 % |

| Table 100. Credit History | | | | | | | |
|---------------------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Total | 1 | 1 | 7 | 1 | 0 | 1 | 11 |

| Table 101. Do Not Know | | | | | | | |
|------------------------|--------------------------------|-------|--------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 1 | 1 | 6 | 0 | 0 | 1 | 9 |
| | 100 % | 100 % | 85.7 % | 0 % | 0 % | 100 % | 81.8 % |
| Selected | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| | 0 % | 0 % | 14.3 % | 100 % | 0 % | 0 % | 18.2 % |
| Total | 1 | 1 | 7 | 1 | 0 | 1 | 11 |

| Table 102. N/A | | | | | | | |
|---------------------|--------------------------------|-------|--------|-------|----------|---------------------------|--------------|
| | <i>Owners' Minority Status</i> | | | | | | |
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 0 | 0 | 4 | 1 | 0 | 0 | 5 |
| | 0 % | 0 % | 57.1 % | 100 % | 0 % | 0 % | 45.5 % |
| Selected | 1 | 1 | 3 | 0 | 0 | 1 | 6 |
| | 100 % | 100 % | 42.9 % | 0 % | 0 % | 100 % | 54.5 % |
| Total | 1 | 1 | 7 | 1 | 0 | 1 | 11 |

Table 103. Of the items your company was denied, what was the denial reason? (Please check all that apply) [PPP (Paycheck Protection Program Loan)?] [Insufficient Documentation]

| | <i>Owners' Minority Status</i> | | | | | | |
|---------------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 3 | 6 | 8 | 1 | 0 | 1 | 19 |
| | 75 % | 100 % | 80 % | 100 % | 0 % | 100 % | 86.4 % |
| Selected | 1 | 0 | 2 | 0 | 0 | 0 | 3 |
| | 25 % | 0 % | 20 % | 0 % | 0 % | 0 % | 13.6 % |
| Total | 4 | 6 | 10 | 1 | 0 | 1 | 22 |

Table 104. Insufficient Business History

| | <i>Owners' Minority Status</i> | | | | | | |
|---------------------|--------------------------------|--------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 4 | 5 | 6 | 1 | 0 | 1 | 17 |
| | 100 % | 83.3 % | 60 % | 100 % | 0 % | 100 % | 77.3 % |
| Selected | 0 | 1 | 4 | 0 | 0 | 0 | 5 |
| | 0 % | 16.7 % | 40 % | 0 % | 0 % | 0 % | 22.7 % |
| Total | 4 | 6 | 10 | 1 | 0 | 1 | 22 |

Table 105. Confusion about Process

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 3 | 6 | 10 | 1 | 0 | 1 | 21 |
| | 75 % | 100 % | 100 % | 100 % | 0 % | 100 % | 95.5 % |
| Selected | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 25 % | 0 % | 0 % | 0 % | 0 % | 0 % | 4.5 % |
| Total | 4 | 6 | 10 | 1 | 0 | 1 | 22 |

Table 106. Credit History

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|--------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 4 | 5 | 7 | 1 | 0 | 1 | 18 |
| | 100 % | 83.3 % | 70 % | 100 % | 0 % | 100 % | 81.8 % |
| Selected | 0 | 1 | 3 | 0 | 0 | 0 | 4 |
| | 0 % | 16.7 % | 30 % | 0 % | 0 % | 0 % | 18.2 % |
| Total | 4 | 6 | 10 | 1 | 0 | 1 | 22 |

Table 107. Do Not Know

| | Owners' Minority Status | | | | | | |
|-----------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| | 4 | 6 | 6 | 0 | 0 | 1 | 17 |

Table 107. Do Not Know

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|-------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 100 % | 100 % | 60 % | 0 % | 0 % | 100 % | 77.3 % |
| Selected | 0 | 0 | 4 | 1 | 0 | 0 | 5 |
| | 0 % | 0 % | 40 % | 100 % | 0 % | 0 % | 22.7 % |
| Total | 4 | 6 | 10 | 1 | 0 | 1 | 22 |

Table 108. N/A

| | Owners' Minority Status | | | | | | |
|---------------------|--------------------------------|--------|-------|-------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Not Selected | 1 | 1 | 8 | 1 | 0 | 0 | 11 |
| | 25 % | 16.7 % | 80 % | 100 % | 0 % | 0 % | 50 % |
| Selected | 3 | 5 | 2 | 0 | 0 | 1 | 11 |
| | 75 % | 83.3 % | 20 % | 0 % | 0 % | 100 % | 50 % |
| Total | 4 | 6 | 10 | 1 | 0 | 1 | 22 |

Table 109. From July 1, 2016, through June 30, 2021, how often has your company experienced any racial, gender, or ethnicity discriminatory behavior from the Harford County private sector (i.e., non-governmental entities)?

| | <i>Owners' Minority Status</i> | | | | | | |
|--------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Never | 56 | 49 | 34 | 5 | 8 | 4 | 156 |
| | 87.5 % | 69 % | 50.7 % | 55.6 % | 66.7 % | 50 % | 67.5 % |
| Seldom | 2 | 6 | 4 | 0 | 2 | 0 | 14 |
| | 3.1 % | 8.5 % | 6 % | 0 % | 16.7 % | 0 % | 6.1 % |
| Often | 1 | 2 | 3 | 0 | 0 | 1 | 7 |
| | 1.6 % | 2.8 % | 4.5 % | 0 % | 0 % | 12.5 % | 3 % |
| Very Often | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| | 0 % | 0 % | 1.5 % | 0 % | 0 % | 0 % | 0.4 % |
| Do Not Know | 5 | 14 | 25 | 4 | 2 | 3 | 53 |
| | 7.8 % | 19.7 % | 37.3 % | 44.4 % | 16.7 % | 37.5 % | 22.9 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 110. From July 1, 2016, through June 30, 2021, how often has your company experienced any racial, gender, or ethnicity discriminatory behavior from Harford County?

| | <i>Owners' Minority Status</i> | | | | | | |
|---------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Never | 59 | 57 | 36 | 5 | 10 | 4 | 171 |
| | 92.2 % | 80.3 % | 53.7 % | 55.6 % | 83.3 % | 50 % | 74 % |
| Seldom | 0 | 3 | 3 | 0 | 0 | 1 | 7 |
| | 0 % | 4.2 % | 4.5 % | 0 % | 0 % | 12.5 % | 3 % |

Table 110. From July 1, 2016, through June 30, 2021, how often has your company experienced any racial, gender, or ethnicity discriminatory behavior from Harford County?

| | Owners' Minority Status | | | | | | |
|--------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Often | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| | 0 % | 0 % | 4.5 % | 0 % | 0 % | 0 % | 1.3 % |
| Very Often | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1.6 % | 0 % | 0 % | 0 % | 0 % | 0 % | 0.4 % |
| Do Not Know | 4 | 11 | 25 | 4 | 2 | 3 | 49 |
| | 6.2 % | 15.5 % | 37.3 % | 44.4 % | 16.7 % | 37.5 % | 21.2 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 111. Do you believe there is an informal network of prime and subcontractors doing business with Harford County Government that monopolizes the public contracting process? Informal network is defined as firms that have an advantage due to their relationships inside Harford County.

| | Owners' Minority Status | | | | | | |
|--------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Yes | 19 | 34 | 45 | 5 | 6 | 4 | 113 |
| | 29.7 % | 47.9 % | 67.2 % | 55.6 % | 50 % | 50 % | 48.9 % |
| No | 45 | 37 | 22 | 4 | 6 | 4 | 118 |
| | 70.3 % | 52.1 % | 32.8 % | 44.4 % | 50 % | 50 % | 51.1 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 112. Please tell us if you strongly agree, agree, neither agree nor disagree, disagree or strongly disagree with each of the following statements: [Double standards in qualifications and work performance make it more difficult for Minority, Woman, Disadvantaged or Small business to win bids or contracts.]

| | Owners' Minority Status | | | | | | |
|-----------------------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Strongly agree | 3 | 9 | 31 | 2 | 3 | 3 | 51 |
| | 4.7 % | 12.7 % | 46.3 % | 22.2 % | 25 % | 37.5 % | 22.1 % |
| Agree | 10 | 15 | 13 | 2 | 2 | 1 | 43 |
| | 15.6 % | 21.1 % | 19.4 % | 22.2 % | 16.7 % | 12.5 % | 18.6 % |
| Neither agree nor disagree | 36 | 37 | 16 | 4 | 6 | 2 | 101 |
| | 56.2 % | 52.1 % | 23.9 % | 44.4 % | 50 % | 25 % | 43.7 % |
| Disagree | 5 | 7 | 3 | 0 | 0 | 1 | 16 |
| | 7.8 % | 9.9 % | 4.5 % | 0 % | 0 % | 12.5 % | 6.9 % |
| Strongly disagree | 10 | 3 | 4 | 1 | 1 | 1 | 20 |
| | 15.6 % | 4.2 % | 6 % | 11.1 % | 8.3 % | 12.5 % | 8.7 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 113. Please tell us if you strongly agree, agree, neither agree nor disagree, disagree or strongly disagree with each of the following statements: [Harford County is generally accommodating to the language needs of its vendor community.]

| | Owners' Minority Status | | | | | | |
|-----------------------|--------------------------------|-------|-------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Strongly agree | 7 | 5 | 6 | 1 | 3 | 1 | 23 |
| | 10.9 % | 7 % | 9 % | 11.1 % | 25 % | 12.5 % | 10 % |

Table 113. Please tell us if you strongly agree, agree, neither agree nor disagree, disagree or strongly disagree with each of the following statements: [Harford County is generally accommodating to the language needs of its vendor community.]

| | Owners' Minority Status | | | | | | |
|-----------------------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Agree | 13 | 7 | 13 | 1 | 1 | 1 | 36 |
| | 20.3 % | 9.9 % | 19.4 % | 11.1 % | 8.3 % | 12.5 % | 15.6 % |
| Neither agree nor disagree | 40 | 56 | 41 | 7 | 5 | 4 | 153 |
| | 62.5 % | 78.9 % | 61.2 % | 77.8 % | 41.7 % | 50 % | 66.2 % |
| Disagree | 4 | 3 | 5 | 0 | 3 | 2 | 17 |
| | 6.2 % | 4.2 % | 7.5 % | 0 % | 25 % | 25 % | 7.4 % |
| Strongly disagree | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| | 0 % | 0 % | 3 % | 0 % | 0 % | 0 % | 0.9 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |

Table 114. Please tell us if you strongly agree, agree, neither agree nor disagree, disagree or strongly disagree with each of the following statements: [Sometimes, a prime contractor will contact a Minority and/or Woman owned firms to ask for quotes but never give the proposal sufficient review to consider giving that firm the award.]

| | Owners' Minority Status | | | | | | |
|-----------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Strongly agree | 2 | 6 | 25 | 2 | 2 | 2 | 39 |
| | 3.1 % | 8.5 % | 37.3 % | 22.2 % | 16.7 % | 25 % | 16.9 % |
| Agree | 8 | 13 | 16 | 2 | 3 | 1 | 43 |
| | 12.5 % | 18.3 % | 23.9 % | 22.2 % | 25 % | 12.5 % | 18.6 % |

Table 114. Please tell us if you strongly agree, agree, neither agree nor disagree, disagree or strongly disagree with each of the following statements: [Sometimes, a prime contractor will contact a Minority and/or Woman owned firms to ask for quotes but never give the proposal sufficient review to consider giving that firm the award.]

| | <i>Owners' Minority Status</i> | | | | | | |
|-----------------------------------|--------------------------------|--------|--------|--------|----------|---------------------------|--------------|
| Responses | Non-Minority | Woman | Black | Asian | Hispanic | Multi-Racial or Bi-Racial | Total |
| Neither agree nor disagree | 45 | 48 | 20 | 5 | 7 | 5 | 130 |
| | 70.3 % | 67.6 % | 29.9 % | 55.6 % | 58.3 % | 62.5 % | 56.3 % |
| Disagree | 3 | 3 | 3 | 0 | 0 | 0 | 9 |
| | 4.7 % | 4.2 % | 4.5 % | 0 % | 0 % | 0 % | 3.9 % |
| Strongly disagree | 6 | 1 | 3 | 0 | 0 | 0 | 10 |
| | 9.4 % | 1.4 % | 4.5 % | 0 % | 0 % | 0 % | 4.3 % |
| Total | 64 | 71 | 67 | 9 | 12 | 8 | 231 |



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