

City of Cincinnati

DISPARITY STUDY REPORT

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GS GRIFFIN &
STRONG PC

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I. INTRODUCTION

A. Scope of Work

In June 2021, the City of Cincinnati, Ohio (“City”) contracted with Griffin & Strong, P.C. (“GSPC”) to design and conduct a legally defensible disparity study (“Study”). The goal of the Study is to determine whether statistically significant disparities exist between Minority-owned and controlled (“Minority” or “MBE”) and Women-owned and controlled business enterprises (“Woman” or “WBE”) (collectively, “MWBE”) in the City’s Relevant Market area that are ready, willing, and able to perform work on City contracts; and the actual utilization of those firms during the Study Period as Prime Contractors and Subcontractors on City Construction, Professional Services¹, and Supplies/Services contracts as each is defined in CMC sections 323-1-C4, 321-1-P, 321-1-S2 and 321-1-S, respectively. The Study also examines the existence and extent of any active or passive discrimination in relevant public or private markets, and whether there is a causal relationship between measured discrimination and any observed disparities in Availability and Utilization.

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 to determine whether there is a compelling interest for the creation or continuation of remedial procurement programs, based upon race, gender, and ethnicity. For the legal requirements of *Croson* and its progeny to be satisfied for any race or gender-based activities, GSPC must determine whether the City has been a passive or active participant in any identified disparities regarding access of MBEs and WBEs to its procurement and contracting opportunities.

To achieve these ends, GSPC has analyzed the prime contracting and subcontracting activities for the City’s purchases of Construction, Architecture & Engineering (“A&E”), Professional Services, Other Services and Goods during the five (5) calendar years from January 1, 2016, through December 31, 2020 (“Study Period”).

B. Objectives

The principal research questions are to determine:

- Is there a statistically significant disparity in the relevant geographic and product markets between the percentage of certified Minority- and Women-owned businesses willing and able to provide goods or services to the City in each of the categories of contracts and the percentage of dollars spent by the City or City contractors with such firms?
- If a statistically significant disparity exists, have factors other than race and gender been ruled out as the cause of the disparity?
- Can the disparity 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 race- and/or gender-conscious remedial program elements? And
- Are the proposed remedies narrowly tailored to the findings of the Study?

¹ Professional Services was separated into two (2) Industry Categories of Architecture & Engineering (“A&E”) and Professional Services. By separating out A&E which is Construction-related professional services, the City can either assess these services as part of Construction projects which they are typically budgeted as part of, or it can assess them as part of all professional services.

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 regarding MWBE participation. The final work plan consisted of, but was not limited to, the following major tasks:

- Establishing data parameters and finalizing a work plan;
- Legal analysis;
- Reviewing policy and processes;
- 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, as well as analysis of building permit data;
- Collecting and analyzing anecdotal evidence;
- Establishing findings of fact regarding the existence and nature of marketplace discrimination and /or other barriers to MWBE participation in City 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 P.

D. Report Organization

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

- Chapter II, which presents GSPC's detailed 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 City of Cincinnati's purchasing policies, practices, and programs;
- Chapter V, which presents the methodology used in the collection of statistical data from the City of Cincinnati and the analyses of the data regarding relative MWBE Availability and Utilization and includes a discussion on levels of disparity for the City's Prime Contractors;
- Chapter VI, which analyzes whether present or ongoing effects of past discrimination are affecting the City of Cincinnati's 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 the City of Cincinnati, Ohio, related to Construction, A&E, Professional Services, Other Services, and Goods for CY2016-CY2020.

As outlined in the Legal Analysis Chapter (Chapter III), 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 demonstrate, GSPC found statistically significant Underutilization of some Minority-owned firms and Non-Minority Women-owned firms in each of the five (5) work categories that GSPC analyzed. The exceptions will be discussed in the findings below.

A regression analysis was performed. GSPC found evidence of disparities by race, ethnicity, and 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 City of Cincinnati's marketplace.

A. Legal Finding

Finding 1: Legal

Consistent with the “narrow tailoring” aspect of the strict scrutiny analysis discussed in the Legal Analysis Chapter, the City of Cincinnati continues to implement race- and gender-neutral measures to try to increase Utilization of MWBE firms working as Prime Contractors and Subcontractors. The present Study shows that those measures have not been wholly effective in resolving the identified disparities.² Accordingly, the City has a basis to continue race- and gender-conscious remedies or policies toward that goal with respect to Prime Contractors and Subcontractors.³

Moreover, 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* MWBE status cannot fully account for the statistical disparities found for prime contracts. Stated otherwise, the City can show that MWBE status continues to have an adverse impact on a firm's ability to secure opportunities as a Prime Contractor with the City, further supporting more aggressive remedial efforts.

Thus, having obtained statistical and anecdotal evidence of disparities regarding race, ethnicity, and gender specific prime contracts, the City can ensure that the more robust remedies considered as a result of this

² 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).

³ *Id.*; see also *Sherbrooke Turf, Inc. v. Minnesota D.O.T.*, 345 F.3d 964, 971-72 (8th Cir. 2003) (“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.”).

can be limited to race, ethnicity, and gender groups for which Underutilization and an inference of discrimination has been identified.⁴

B. Statistical Findings

Finding 2: Relevant Market by Percentage and Dollars

GSPC reviewed and analyzed City Prime Contractor payments made during the Study Period to determine the Relevant Market. For each Industry Category, GSPC determined the Relevant Market by the geographic area where at least 75% of the City’s dollars were paid during the Study Period.

76.03 percent of the total expenditures in all Industry Categories were conducted in the Relevant Market (Hamilton County): Here is the breakdown for each category:

Construction:	81.41%
A&E:	80.87%
Professional Services:	84.31%
Other Services:	81.79%
Goods:	59.90%

A total of \$824,614,364.00 was spent with businesses in the Relevant Market (Hamilton County) during the Study Period. Here is the breakdown:

Construction:	\$367,436,612
A&E:	\$ 15,587,927
Professional Services:	\$ 58,691,403
Other Services:	\$212,497,005
Goods:	<u>\$170,401,416</u>
	\$824,614,364

Finding 3: Prime Utilization by Payments⁵

Of the total \$367,436,612 procurement in Construction during the Study Period, 1.6% was spent with African American-owned firms, 1.08% with Non-Minority Woman-owned firms, and the remaining 97.33% with Non-MWBE business owners.

Of the \$15,587,927 spent in A&E procurement, nearly 86% was conducted with Non-MWBE businesses. The expenditures with Minority-owned businesses were respectively 0.47%, 11.53%, 1.37%, and 0.86% with African American, Asian American, Hispanic American, and Non-Minority Woman-owned firms, respectively.

⁴ *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.

⁵ 0.01 differences within the tables in the Statistical Chapter are due to automatic rounding.

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In Professional Services, 9.55% of the total procurement was spent with African American-owned firms and 1.87% with Non-Minority Woman business owners. The remaining 88.58% was conducted with Non-MWBE businesses.

Of the \$212,497,005 prime procurement in Other Services during the Study Period, 3.01% was spent with African American-owned firms, 2.73% with Non-Minority Woman-owned businesses, and the remaining 94.26% with Non-MWBE business owners.

In reference to procurement of Goods during the Study Period, 4.89% of \$170,401,416 was spent with African American business, 0.82% with Non-Minority Woman business owners, and the remaining 94.29% with Non-MWBE Businesses.

Table 1 below provides a breakdown by race, ethnicity, and gender of the total amount paid by the City to Prime Contractors in the Relevant Market for each Industry Category during the Study Period. As indicated, \$9.8 million of the total \$367.4 million in Construction spend, or 2.67%, was paid to MWBE firms. MWBEs received 14.23% of A&E payments, 11.42% of Professional Services payments, 5.74% of Other Services payments, and 5.71% of Goods payments. Across all Industry Categories, 4.93% of prime payments were made to MWBEs.

**Table 1: Prime Expenditures by Firms in the Relevant Market area
(Using Payment Dollars, CY 2016-2020)
Cincinnati Disparity Study**

Business Ownership Classification	Construction	A&E	Professional Services	Other Services	Goods	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
African American	\$ 5,861,003	\$ 73,488	\$ 5,604,981	\$ 6,401,643	\$ 8,332,710	\$ 26,273,825
Asian American	\$ -	\$ 1,797,534	\$ -	\$ 3,110	\$ -	\$ 1,800,644
Hispanic American	\$ -	\$ 213,581	\$ -	\$ -	\$ 1,732	\$ 215,313
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL MINORITY	\$ 5,861,003	\$ 2,084,603	\$ 5,604,981	\$ 6,404,753	\$ 8,334,442	\$ 28,289,782
Non-Minority Woman	\$ 3,955,594	\$ 133,547	\$ 1,097,765	\$ 5,802,602	\$ 1,399,692	\$ 12,389,201
TOTAL MWBE	\$ 9,816,597	\$ 2,218,150	\$ 6,702,747	\$ 12,207,355	\$ 9,734,134	\$ 40,678,983
NON-MWBE	\$357,620,015	\$13,369,777	\$51,988,656	\$200,289,650	\$160,667,282	\$ 783,935,381
TOTAL FIRMS	\$367,436,612	\$15,587,927	\$58,691,403	\$212,497,005	\$170,401,416	\$ 824,614,364
Business Ownership Classification	Construction	A&E	Professional Services	Other Services	Goods	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
African American	1.60%	0.47%	9.55%	3.01%	4.89%	3.19%
Asian American	0.00%	11.53%	0.00%	0.00%	0.00%	0.22%
Hispanic American	0.00%	1.37%	0.00%	0.00%	0.00%	0.03%
Native American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
TOTAL MINORITY	1.60%	13.37%	9.55%	3.01%	4.89%	3.43%
Non-Minority Woman	1.08%	0.86%	1.87%	2.73%	0.82%	1.50%
TOTAL MWBE	2.67%	14.23%	11.42%	5.74%	5.71%	4.93%
NON-MWBE	97.33%	85.77%	88.58%	94.26%	94.29%	95.07%
TOTAL FIRMS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

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Finding 4: Total Utilization (Prime + Subcontractor) by Payments

MWBEs received \$64,270,830 (17.49%) of Total Utilization in Construction (prime contracting plus subcontracting) paid dollars and \$2,218,150 (14.23%) of Total Utilization in A&E (Table 2)⁶. Total Utilization reallocates dollars paid to a Subcontractor into the race, ethnicity, or gender category of the Subcontractor, rather than counting all dollars in an award only to the race, ethnicity, or gender category of the Prime Contractor.

**Table 2: Summary of Total Utilization in the Relevant Market area⁷
(Based on Payment Data CY2016-CY2020)
Cincinnati Disparity Study**

Business Ownership Classification	Construction	A&E
	(\$)	(\$)
African American	\$ 36,342,775	\$ 73,488
Asian American	\$ 8,737,800	\$ 1,797,534
Hispanic American	\$ -	\$ 213,581
Native American	\$ -	\$ -
TOTAL MINORITY	\$ 45,080,575	\$ 2,084,603
Non-Minority Woman	\$ 19,190,255	\$ 133,547
TOTAL MWBE	\$ 64,270,830	\$ 2,218,150
NON-MWBE	\$ 303,165,783	\$ 13,369,777
TOTAL FIRMS	\$ 367,436,612	\$ 15,587,927
Business Ownership Classification	Construction	A&E
	(%)	(%)
African American	9.89%	0.47%
Asian American	2.38%	11.53%
Hispanic American	0.00%	1.37%
Native American	0.00%	0.00%
TOTAL MINORITY	12.27%	13.37%
Non-Minority Woman	5.22%	0.86%
TOTAL MWBE	17.49%	14.23%
NON-MWBE	82.51%	85.77%
TOTAL FIRMS	100.00%	100.00%

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⁶ This analysis was only conducted for Construction and A&E which had measurable levels of subcontracting reported. There was no measurable subcontracting amounts for Professional Services, Other Services, or Goods.

⁷ 0.01 differences within the tables in the Statistical Chapter are due to automatic rounding.

Finding 5: Availability

GSPC measured the Availability of ready, willing, and able firms in the relevant market in each of the five (5) Industry Categories. GSPC created a pool (“Master Vendor File”) from various governmental agencies of firms that met the following criteria:

- The firm does business within an industry group from which the City makes certain purchases;
- The firm’s owner has taken steps (such as bidding, certification, prequalification, etc.) to demonstrate interest in doing business with government; and
- The firm is located within a relevant geographical market area such that it can do business with the City.

The Master Vendor File produced the following Availability findings:

**Table 3: Availability of Firms by Business Ownership in Market Area⁸
(Using Master Vendor File)
Cincinnati Disparity Study**

Business Ownership Classification	Construction	A&E	Professional Services	Other Services	Goods and Services
African American	12.48%	7.69%	12.37%	10.45%	5.05%
Asian American	0.65%	3.55%	1.03%	0.72%	0.27%
Hispanic American	0.65%	2.37%	0.26%	0.32%	0.13%
Native American	0.13%	0.00%	0.00%	0.08%	0.00%
TOTAL MBE	13.91%	13.61%	13.66%	11.58%	5.44%
Non-Minority Woman	6.76%	10.65%	6.44%	3.54%	4.52%
TOTAL MWBE	20.68%	24.26%	20.10%	15.11%	9.96%
NON-MWBE	79.32%	75.74%	79.90%	84.89%	90.04%
TOTAL FIRMS	100.00%	100.00%	100.00%	100.00%	100.00%

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Finding 6: Prime Disparities

Table 4 below indicates those MWBE groups where a statistically significant disparity (X) was found in Prime Contractor Utilization for Construction, A&E, Professional Services, Other Services, and Goods. Except for African American-owned firms in Goods and Asian American-owned firms in A&E, every MWBE group was significantly underutilized in each category throughout the Study Period as Prime Contractors (although for some groups the number of businesses was too small to be statistically confident).

⁸ 0.01 differences within the tables in the Statistical Chapter are due to automatic rounding.

**Table 4: Summary of Statistically Significant Underutilization of MWBEs in Prime Contracting
(Based on Payment Data CY2016-CY2020)
Cincinnati Disparity Study**

Firm Ownership	Construction	A&E	Professional Services	Other Services	Goods
African American	X	X	X	X	*
Asian American	X		X	X	**
Hispanic American	X	X	X	X	**
Native American	**	**	**	**	**
Non-Minority Woman	X	X	X	X	X

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Note: * Disparity but not statistically significant.

** Number of businesses in both Prime and Availability data too small to conduct statistical analysis.

Finding 7: Total Utilization Disparities

After adding the Subcontractor amounts to Prime Contractor payments, the analysis revealed Asian American-owned firm Overutilization in Construction and A&E categories. Other MWBE groups had significant disparity in both Construction and A&E categories as shown by an X below. There were too few Native American-owned firms to analyze with confidence.

**Table 5: Summary of Statistically Significant Underutilization of MWBEs in Total Utilization Analysis
(Based on Payment Data CY2016-CY2020)
Cincinnati Disparity Study**

Firm Ownership	Construction	A&E
African American	X	X
Asian American		
Hispanic American	X	X
Native American	**	**
Non-Minority Woman	X	X

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Note: * Disparity but not statistically significant.

** Small number of businesses in both Prime and Availability data to conduct statistical analysis.

Finding 8: Thresholds and Contract Sizing

The Threshold and Contract Size analysis looks at contract awards by increasing dollar groups to see if there are any outliers in each Industry Category and the extent to which there are prime contracting opportunities for small businesses. The analysis revealed that most contracts in Construction, A&E, Professional Services, Other Services, and Goods were valued between \$5,000 and \$50,000, and in every Industry Category the mean contract was under \$50,000.

Finding 9: Disparities after Controlling for Capacity

For contracts under \$1 million, the statistical analysis showed Underutilization for all categories except for Asian American-owned firms in A&E and Non-Minority Woman-owned firms in Other Services. Likewise, the analysis of contracts under \$500,000, produce the same results – all MWBEs were underutilized except for Asian American-owned firms in A&E and Non-Minority Woman-owned firms in Other Services.

C. Policy Findings**Finding 10: Bonding and Insurance**

Interviews of City staff indicated that they have received complaints from bidders or potential bidders that bond requirements were a barrier to participation in City contracting. Respondents to the Survey of Business Owners revealed that 8.4% identified performance bond requirements have been a barrier to their firm obtaining work on projects for the City of Cincinnati, and 9.1% stated that bid bond requirements were a barrier.

Finding 11: Prompt Payment

The City promulgated its own prompt payment ordinance, which requires Prime Contractors to pay Subcontractors within ten (10) days of payment by the City to the Prime Contractor, but also provides that the City shall pay Prime Contractors within thirty (30) days of receipt by the City of a “complete and responsive invoice.” Interviewed City staff shared there have been consistent complaints about prompt payment – both from Prime Contractors citing late payment from the City and from Subcontractors complaining about Prime Contractors not paying on time.

Finding 12: Economic Inclusion Initiatives

The Small Business Enterprise (“SBE”), Small Local Business Enterprise (“SLBE”), and the Emerging Local Business Enterprise (“ELBE”) initiatives are administered by the City’s Department of Economic Inclusion (“DEI”), and include, among other tools, options for bid preferences, annual aspirational SBE goals, mandatory SLBE and ELBE subcontracting goals, and a sheltered market for ELBEs and SLBEs.

Firms qualify for SLBE certification if they perform a commercially useful function; are independently owned and operated, with owners actively involved day-to-day; have had no more than thirty-five (35) full-time employees at one time in the past three (3) years; have had annual revenues that average over the last three (3) years no more than \$1,000,000; have received no more than \$500,000 in City payments in the previous year; have been in operation for at least one (1) year or have owners with at least three (3) years of relevant experience in the field; and have a principal place of business or significant employee presence within the City.

The standards for ELBEs are in many respects the same as those noted above for SLBEs. The differences in eligibility requirements between the two certification types are that an ELBE must have had no more than five (5) full-time employees at any one time during its existence; cannot have annual revenues (averaged over the life of the business) greater than \$250,000; cannot have been in existence for more than five (5) years; and have not received more than \$250,000 in payments under City contracts in the year immediately preceding application.

The City's aspirational annual goal for SBE participation is 30% for Construction, 15% for Goods and Other Services, and 15% for Professional Services.

Non-competitive decentralized purchases (called "PDQs") may be used by City departments for purchases under \$5,000. This permits the purchase to be made "on a non-competitive basis from a certified SBE, ELBE, or SLBE supplier/contractor that is most convenient, without contacting other contractors/suppliers."

Before pursuing cooperative purchasing, the Purchasing Division must check to see whether any City-certified MBEs, WBEs or SBEs can provide the goods and services.

For contracts valued between \$250,000 and \$1,000,000, an SLBE bidder may be awarded the contract when its bid is no more than 10% greater than the lowest and otherwise best bid (subject to certain restrictions enumerated in the ordinance). Similarly, ELBEs may receive the same bid preference for contracts valued between \$50,000 and \$100,000.

SLBEs and ELBEs also may receive up to ten (10) additional preference points in the evaluation of contracts for Professional Services, including A&E. These preferences apply to SLBE responses for contracts valued between \$100,000 and \$250,000, and to ELBE responses for contracts valued between \$50,000 and \$100,000.

The DEI Director, in consultation with the Purchasing Agent and the user department, may select certain contracts valued at \$250,000 or less for exclusive competition by SLBEs (or a joint venture with SLBEs), and may designate certain contracts valued at \$50,000 or less for exclusive competition by ELBEs.

The DEI Director may, "on a contract-by-contract basis, require that a predetermined percentage of a specific contract, up to 30%, be subcontracted to certified SLBEs or ELBEs."

Policy interviews revealed some concerns that these small business programs are dominating the inclusion space, to the detriment of MWBEs.

Finding 13: MWBE Program

The MWBE program also includes contract-by-contract goals on projects valued more than \$50,000 and deemed appropriate for goal setting by the DEI Director. MWBE goals also may be waived or reduced by the DEI Director both pre-bid (sought by the contracting department) or post-award (sought by the contractor). The inclusion levels to which the successful bidder or respondent commits in its bid or proposal then become a part of the contract. Policy interviews with City staff indicated that MWBE goals are often not met by bidders/respondents, requiring re-solicitation or a change in the goal.

MWBEs can receive up to ten (10) evaluation preference points on RFPs or RFQs for prime Professional Services contracts. When an MWBE is part of a joint venture submitting a proposal for the project,

preference points, if awarded, are applied on a *pro rata* basis consistent with the division of ownership and work as among MWBE and non-MWBE members of the joint venture.

Price preferences are also available to MWBEs seeking awards as Prime Contractors for eligible Other Services or Goods contracts. Such preferences may be applied when the MWBE submits a bid that is no more than 5% greater than the lowest and otherwise best bid, subject to certain limitations.

DEI certifies MBEs, WBEs, and MWBEs for participation in these program elements for two-year periods. Certifications may be renewed every two years if firms continue to meet the eligibility requirements. An eligible “Minority Group Member” is “a member of the following groups for which the [2015] disparity study found a statistically significant Underutilization for the following contracts: (a) for [C]onstruction contracts and [P]rofessional [S]ervices contracts, African Americans; and (b) for non-[P]rofessional [S]ervices and supplies contracts, African-Americans and Asian Americans.” Policy interviews indicated some “quasi-reciprocal” certification, but there is no provision for such process in the program as written. Some City staff interviewees also shared concerns that the certification process may be too involved, confusing, or invasive for certain small MWBEs.⁹

Finding 14: Reporting MWBE Utilization

MWBE Utilization was tracked by the City during the Study Period using B2G Now software, which it continues to use, and the website for the Office of Procurement provides links to historical data that includes contracting opportunities, bid tabs, MWBE and/or SBE goals attached to contracts, and awards. During the Study Period, DEI prepared quarterly reports on MWBE Utilization that were submitted to City Council.

Finding 15: Management and Technical Assistance

There are several supportive services or similar efforts that DEI is authorized to undertake to achieve greater SLBE and ELBE participation. These include bonding and insurance assistance (including reduction or waiver of bonds or insurance requirements at the discretion of DEI); forecasting and timely notification to permit SLBEs and ELBEs to prepare bids, quotes, or proposals; financing assistance to help manage cash flow challenges; workshops and other assistance to improve bidding, inform pricing practices; accounting and marketing help; and coordination and referral to existing business development organizations. DEI publishes a Business Resource Guide designed to assist small businesses and MWBEs increase capacity and otherwise further develop their ability to seek contracting opportunities with the City.

Finding 16: Department of Economic Inclusion

DEI is charged with oversight of programs promoting diversity and inclusion, including affirmative action, small business and local small business enterprise programs, and Minority and Women business enterprise programs.

In 2014, the City’s Mayor established the Cincinnati Economic Inclusion Advisory Counsel, intended to make recommendations and provide advice to the City on ways to promote economic inclusion within the City.

⁹ There has been a change in Ohio law since the Study Period, resulting in a more streamlined process for certifying firms certified by the State.

D. Marketplace Disparities – Private Sector Likelihoods

Finding 17: MWDBE Revenue Shares

For the City of Cincinnati Relevant Market, relative to Caucasian American-owned¹⁰ firms, the estimated revenue shares of each Minority, Woman, and Disadvantaged Business Enterprise (“MWDBE”)¹¹ firm never exceeds 3.8%. Except for Hispanic American-owned firms, MWDBEs have estimated revenue shares far smaller than their firm representation shares. This suggests that, in the City of Cincinnati Relevant Market private sector, MWDBEs face barriers that translate into lower firm revenues.

As MWDBE status in the City of Cincinnati Relevant Market private sector is associated with lower firm revenue, both absolutely and relative to their firm share in the market, this lends support to the “but-for” justification for affirmative action in public procurement.

Finding 18: Self-Employment Likelihood

Relative to firms owned by Caucasian Americans, firms owned by Women, Hispanic Americans, Pacific Islander Americans, and Other Race are less likely to be self-employed in the City of Cincinnati Relevant Market Construction sector, which suggests these firms face barriers to self-employment in the City of Cincinnati Relevant Market Construction sector.

The lower likelihood of these MWBEs being self-employed in the Construction sector in the City of Cincinnati Relevant Market could reflect disparities in public contracting, as there is evidence that the low self-employment rate of African Americans in Construction may be due to the lack of opportunities to secure public contracting in Construction.

Finding 19: Non-MWBE Dominance in Building Permits

Non-MWBEs accounted for approximately 98% of building permits in the City of Cincinnati during the 2010-2022 calendar years. 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-MWBEs in securing building permits suggests the presence of private sector barriers faced by MWBEs.

Finding 20: Commercial Loan Denials

Relative to non-MWDBEs, certified Minority firms have more commercial bank loan denials. This suggests that these MWDBEs face barriers in the private credit market that can constrain capacity to compete in the market for public procurement as a result of private sector credit market discrimination.

Finding 21: New Firm Likelihood

Certified Minority-owned firms in the City of Cincinnati Relevant Market are more likely to be new firms. 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 certified Minority-owned firms, relative inexperience

¹⁰ The identification of Caucasian American owned firms is utilized, instead of Non-MWBE, when survey data, U.S. Census Bureau data, or other sourced data specifically identified the group as Caucasian American. Non-MWBEs are firms that are not certified as MWBEs which could include Caucasian Americans, publicly held corporations, or uncertified firms.

¹¹ The Marketplace Disparities analysis may use MWDBEs when analyzing certified MWBEs because the Ohio Department of Transportation certifies MWBEs as Disadvantaged Business Enterprises (“DBE”).

may at least partially explain disparities in public contracting between MWDBEs and non-MWDBEs in the City of Cincinnati Relevant Market.

E. Marketplace Disparities – City Bidding and Contracting Likelihoods

Finding 22: Bid Submission Differences¹²

Relative to non-MWDBEs¹³, MWDBEs did not differ with respect to the submission of bids for prime contracts with the City of Cincinnati. This suggests that any disparities in public contracting outcomes between MWDBEs and non-MWDBEs with the City of Cincinnati cannot be explained by MWDBEs submitting fewer prime contract bids relative to non-MWDBEs.

Finding 23: Prior Prime Awards

Relative to non-MWDBEs, firms certified as Disadvantaged and owned by Other Race received fewer City of Cincinnati prime contracts. This suggests that any contracting disparities between non-MWDBEs, certified Disadvantaged firms, and Other Race-owned firms may be explained by past, and possibly discriminatory (perceived and/or actual discrimination that could be passive or actual) constraints on these firms successfully winning prior prime contracts from the City of Cincinnati.

Finding 24: Prior Subcontracting Awards

Relative to non-MWDBEs, firms owned by Hispanic Americans and Other race received fewer City of Cincinnati subcontracts. To the extent that success in public contracting is proportional to having prior subcontracts, this suggests that any contracting disparities between non-MWDBEs and firms owned by Hispanic Americans and Other Race can in part be explained by past and possibly discriminatory constraints on subcontracting.

Finding 25: Likelihood of Never Having an Award

Relative to non-MWDBEs, firms owned by African Americans and Women are more likely to have “never” been a Prime Contractor or Subcontractor on City of Cincinnati contracts. To the extent that success in public contracting is proportional to having prior prime contracts or subcontracts, this suggests that any City of Cincinnati public contracting disparities between non-MWDBEs, and firms owned by African Americans and Women may be explained by their relative disadvantage in having never secured prior prime contracts or subcontracts from the City of Cincinnati.

Finding 26: Perceived Discrimination

Relative to non-MWDBEs, firms certified as Disadvantaged, and those owned by African Americans are relatively more likely to perceive that they have experienced discrimination by the City of Cincinnati. This suggests that, at least for MWDBEs certified as Disadvantaged and owned by African Americans, City of

¹² The GSPC Survey of Business Owners uses the term “bid” generically for all solicitations, but since the City uses that term specifically, which does not include RFP’s, there could be some misinterpretation of the question by survey respondents.

¹³ The GSPC Survey of Business Owners asked firms if they were certified as Minority, Woman, or Disadvantaged Business Enterprises. Disadvantaged Business Enterprises are substantially all Minority- and Woman-owned businesses, so it is important for the study to capture information related to those firms who may not have also certified as Minority- or Woman-owned. Therefore, the term, MWDBE may be used when certified Disadvantaged Business Enterprises are included in the analysis.

Cincinnati public contracting disparities between them and non-MWDBEs may at least in part be explained by perceived discrimination, which could possibly disincentivize prime bid submissions, lowering success rates. When asked in the Survey of Business Owners if their company experienced racial, gender, or ethnicity discriminatory behavior from the City, 8.6% of the respondents reported having had such experiences, with 2.4% reporting it occurred very often. In comparison, when asked the same question about the private sector, 12.5% stated that they have experienced discriminatory behavior.

Finding 27: Informal Networks

Relative to non-MWDBEs, firms certified as Minority and Small, and those owned by African Americans and Women are more likely to perceive that informal networks enable contracting success with the City of Cincinnati. This suggests that contracting disparities between them and non-MWDBEs can potentially be explained by the exclusion of MWBE firms from the City of Cincinnati public contracting networks, which reduces their ability to secure prime contracts and subcontracts.

F. ANECDOTAL FINDINGS

Finding 28: Informal Networks

Study participants complained about having to compete against an entrenched group of businesses that seemingly always won bids with the City. According to the Survey of Business Owners, nearly half of the 287 respondents (46.7%) said “yes” when asked if they believed that some form of an informal network monopolized public contracting. Likewise, about half of the respondents (50.4%) told the Study team that exclusion from an informal network prevented them from doing business with the City. “We were getting overlooked for companies not even in our county,” one Woman business owner told the Study team. “They were not even in our City, and they were winning.” Twenty-three (23%) percent said that lacking an existing relationship with the City is a barrier.

Finding 29: Barriers in Bidding Process

Businesses expressed concern that the actual process of doing business with the City posed barriers to bidding and to certification. More than 15% of the 287 Survey of Business Owners respondents stated that prequalification requirements were a barrier, and 17.1% of respondents said excessive paperwork was a barrier. “Getting registered for the certification, the process took us two to three months,” an African American business owner said, pointing out that the registration process took smaller businesses two to three months to complete. Another group, represented by nearly 11% of those polled, said that bid specifications prevented companies from doing business with the City.

Finding 30: Prompt Pay

Nearly half of the Prime Contractors participating in the Study (46.3%) said it took the City between 30 and 60 days from submission of their invoice to pay them. More than 14% said they received payment after 60 days. The survey also found that 37.3% of Subcontractors were paid by Prime Contractors between 30 and 60 days from submission of their invoice to the Prime Contractor. Nearly a third of those polled, or more than 28%, said it took a prime more than 60 days to pay on a contract. “Payment timelines are 60 to 90 days and beyond,” an Asian American business told the Study team.

Finding 31: Registration

More than 23% of firms that were unregistered to do business with the City said they did not know how to register with the City, and 16.7% said they did not know there was a registry. “How can opportunities better be located on the website?” a Woman-owned communication and marketing firm owner asked. “The biggest thing is figuring out where the RFP is on the website.” Also, 16.4% said it is a barrier that they have limited knowledge of purchasing/contracting policies and procedures.

G. COMMENDATIONS

SLBE and ELBE Programs including Sheltered Market

MWBE Goals Program

Exemplary MWBE Subcontractor Payment Tracking

Bond Waivers

Forecasting

Prompt Pay Provisions

Business Resource Guide

Commendation:1 SLBE and ELBE Programs including Sheltered Market

The City is commended for having active Small Business Enterprise (“SBE”), Small Local Business Enterprise (“SLBE”), and Emerging Local Business Enterprise (“ELBE”) programs, which provide tools such as bid preferences, annual aspirational SBE goals, mandatory SLBE and ELBE subcontracting goals, and a sheltered market for ELBEs and SLBEs.

Commendation:2 MWBE Goals Program

The City is commended for having an active MWBE contract-by-contract Subcontractor goal program. Mandatory contract-by-contract goals are set for the solicitation of contracts valued more than \$50,000 that are deemed appropriate for goal setting by the DEI Director. Once such goals are set, they become a part of the published requirements for the solicitation. The specific MBE and WBE participation included on the inclusion plan submitted by the bidder/offeror, which may be higher than the solicitation goal, becomes a part of the contract with the vendor obtaining the award.

Commendation:3 Exemplary MWBE Subcontractor Payment Tracking

The City is commended for tracking, monitoring, and confirming MWBE Subcontractor payments. Many, if not most, cities have no Subcontractor data or tracking. The City's B2Gnow system tracks Prime Contractors, the full amount of their award, the payments made to the Prime Contractor, and their reported payments to Subcontractors, including MWBEs. It further requests verification of those payments and the dates from both the Prime Contractor and the Subcontractor.

Commendation:4 Bond Waivers

The City is commended for allowing a review of the risks of certain contracts to determine if a bond and the amount of the bond is necessary.

Commendation:5 Forecasting

The City is commended for its Department of Economic Inclusion's efforts in forecasting bid opportunities as early as possible to permit MBE, WBEs, SBEs, SLBEs, and ELBEs to prepare bids, quotes, or proposals.

Commendation:6 Prompt Pay Provisions

The City is commended for having a prompt pay ordinance that requires prime vendors to pay Subcontractors within ten (10) days of receiving payment from the City. The ordinance also requires payment by the City to Prime Contractors within thirty (30) days of receipt of a complete and responsive invoice.

Commendation:7 Business Resource Guide

The City is commended for the DEI published Business Resource Guide that assists small and MWBE firms increase capacity and otherwise further develop their ability to seek contracting opportunities with the City.

H. Recommendations

This Study provides factual predicate evidence to support continuing the Cincinnati MWBE program. This conclusion is based on statistical disparities in current Cincinnati MWBE Utilization; substantial disparities in the private marketplace; evidence of disparities in business formation and revenue earned from self-employment; a regression analysis controlling for race neutral factors; the low MWBE Utilization in private sector commercial construction; credit disparities; and qualitative evidence of disparate treatment. Cincinnati should narrowly tailor its MWBE program to address each of these disparities.

Recommendation 1: Allocating Resources and Staffing

The following recommendations may represent the need for an increase in both resources and staffing. The City should not undertake these recommendations without first considering whether there is a need to allocate additional 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 by:

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

Recommendation 2: Set Annual Aspirational MBE and WBE Goals Based Upon Availability

Availability is the benchmark for attainment on an annual basis for all categories. It is an internal measure for the City to determine if the participation of firms in each study group area is what should be expected based upon Availability. GSPC will assist the City in setting the initial Aspirational Goals and provide a formula for future years.

Recommendation 3: Continue to Set MBE and WBE Contract-by-Contract Subcontracting Goals with Robust Good Faith Efforts

The Study did find that certain groups were statistically significantly underutilized and that contract-by-contract subcontracting goals should continue to be utilized for those groups. As a result of those various analyses, GSPC finds a factual predicate for race- and gender-conscious MBE and WBE contract-by-contract subcontracting goals for the following ownership groups:

- **Construction: African American, Hispanic American, Non-Minority Woman;**
- **A&E: African American, Hispanic American, Non-Minority Woman;**
- **Professional Services: African American, Hispanic American, Non-Minority Woman;**
- **Other Services: African American, Asian American, Hispanic American, and Non-Minority Woman; and**
- **Goods: Non-Minority Woman.**

Individual contract goals, when set, should be exclusively MBE and WBE or SLBE and ELBE. Goals from both the Minority and Women Business Enterprise Program and the Local Business Enterprise Program should not be set on the same contract.

For those specific race, ethnicity, and gender groups for which contract-by-contract subcontracting goals are not set as indicated above, the City should still set annual aspirational goals for those groups which should be monitored to make sure that their participation is not out of balance.

To effectively administer an MWBE subcontracting program, the City 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 ongoing campaign to let the MWBE business community know that the City wants to do business with them, and that the City is willing to work with firms to create opportunities and assist, particularly local firms, in building capacity;
- **Certification/Verification:** Continuing encouragement and assistance with certification and acceptance of all bona fide third-party certifications, with the right to reject a third-party certification the City deems not sufficiently supported;
- **Procurement:** Continuing to include in all applicable solicitation packages and awarded contracts the MWBE commitments as contract terms, as well as City participation requirements, such as the performance of commercially useful functions; and
- **Monitoring:** Closely monitoring vendor performance and the efficient closeout of projects to verify that MWBE firms are performing the work they are contracted to perform and are compensated in a timely manner and in the amounts committed to assure equal and fair treatment on contracts, for which the City is currently using B2Gnow.

If firms do not meet the MWBE contract-by-contract goals, they must have the opportunity to demonstrate that they used Good Faith Efforts to achieve the goal. Good Faith Efforts is a bona fide demonstration that the Prime Contractor tried to find and utilize MWBEs but was not able to do so. 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. However, if a firm does not meet the MWBE goals and does not satisfy Good Faith Efforts, the bid or proposal should be deemed nonresponsive.

Recommendation 4: Require Joint Ventures for Large Construction Contracts

The City of Atlanta, Georgia, has had a joint venture requirement for decades that requires its prime contractors on construction projects over \$5,000,000 to enter into a joint venture with a firm that has a majority ownership by a racial group different from that of the prime contractor.

GSPC recommends a similar joint venture requirement for the City of Cincinnati. This will assist diverse firms to grow their capacity, participate at a higher level as Prime Contractors, and increase competition on City contracts. The threshold over which the joint venture requirement would apply will be determined in the implementation of the Study recommendations.

Recommendation 5: Initiate a Campaign to Increase Certification

The City's current race- and gender-conscious program elements have not included all race, ethnicity, and gender groups based on the previous disparity study outcomes. Those previously excluded groups, as well as small businesses in general, may not have seen any benefit in certifying. Therefore, GSPC recommends that the City initiate a campaign to encourage Minority, Women, and small firms to get certified, by explaining the benefits of certification as well as the new program elements that will help them be more successful in trying to secure awards from the City.

Even though the City is not setting contract-by-contract goals with certain race, ethnicity, and gender groups, those groups should be included in the race- and gender-neutral aspects of the City's programs, which include tracking and aspirational goals.

To this end and given anecdotal evidence about excessive paperwork and length of time it takes to become certified, GSPC recommends increasing the certification period from 2 years to 4 years and broadening the list of certifications accepted by the City.

Recommendation 6: Prompt Payment

The City is commended for having a prompt pay ordinance that requires Prime Contractors to pay Subcontractors within ten (10) days of receiving payment from the City, as well as a thirty (30) day prompt payment requirement to pay Prime Contractors. However, GSPC heard complaints from both primes and Subcontractors about slow pay.

GSPC recommends that the City analyze payments at the departmental level to improve the time for Prime Contractor payment processing. If the delay in payments is due to the lack of valid invoices, the City may need to do more outreach and training of vendors on this issue. If the issue is a failure to adhere to the prompt pay requirements, additional enforcement, departmental evaluations, and performance reviews should be utilized to improve the process. One way to start this evaluation is to compare original submission of invoice dates with payment dates. If it is found that Prime Contractors were having to resubmit invoices in order for them to be accepted for payment, there may be a need for more direction from the City about submitting acceptable invoices.

For Subcontractor payments, the City should request not only verification of payments, but also verification of payment dates in B2Gnow or any successor system the City may utilize.

Recommendation 7: Set More Definitive Parameters for the Small Business Sheltered Market

Under a race- and gender-neutral small business sheltered market initiative, the DEI Director, in consultation with the Purchasing Agent and the user department, may select certain contracts valued at \$250,000 or less for exclusive competition by SLBEs (or a joint venture with SLBEs), and may designate certain contracts valued at \$50,000 or less for exclusive competition by ELBEs. GSPC recommends that the Sheltered Market initiative become the standard for these contracts. So, rather than contracts being selected, they should fall within the initiative unless exempted.

Recommendation 8: Continue Targeted Outreach, Supportive Services, and Forecasting

The City has various programs that have been consistent and diligent in reaching out to small, Women-owned, and Minority-owned businesses in the City. However, since the recommendations include the addition of more ethnic and gender groups, it will be critical for the City to initiate outreach campaigns to get MWBE firms to register and certify in order to take advantage of the program offerings.

GSPC encourages the City to put more focus on its race- and gender-neutral sheltered market program, which will assist more small firms, including those that also are Minority-owned and Women-owned, to bid as Prime Contractors because they will not be bidding against large firms. This renewed focus should be

accompanied by the assistance necessary to help these firms make the transition from only participating as Subcontractors to engaging in the prime bidding process as suggested below.

Outreach is critical to the success of the recommended program elements, but the City should look for help through business development centers, particularly ones that the City may already be assisting with financial support. They should be accountable to the City, which includes goals, reporting, and the requirement to track how many businesses are being supported and the success rate of those firms in obtaining public and private contracts.

Supportive services also may be offered internally in coordination with other agencies, such as the Small Business Administration bonding program and the Small Business Development Centers. This is particularly important on the City's large capital projects to insure diverse supplier participation.

In addition, GSPC recommends the City broaden its forecasting efforts to determine bid and proposal opportunities 12-18 months ahead of time whenever possible. This will allow the City to provide supportive services well in advance of the solicitation, if needed. Where there is no formal solicitation, lists of the City's upcoming goods and services needs also should be made available to firms with opportunities posted.

Recommendation 9: Review Bonding and Insurance

City staff reported receiving complaints about bond and insurance levels, but GSPC's Survey of Business Owners found relatively low percentages of complaints. Nonetheless, the City should review its bond and insurance levels contract-by-contract to make sure that bonding requirements align with the level of risk.

Recommendation 10: Data Maintenance Reform

- Currently the City only collects subcontractor payment data on contracts that have MWBE or SBE goals. GSPC recommends that the City track all subcontracts, both the award amount (promised amount) and the payment amount.
- The City should include Purchase Order/Contract Number in the City Financial System payment data.
- The City should consider including NIGP/NAICS¹⁴ codes to all procurement activities.
- The City should require all bidders and other respondents (including those submitting informal quotes) to register as vendors.

¹⁴ NIGP (National Institute of Governmental Purchasing) and NAICS (North American Industry Classification System) are commodity codes that identify the type of goods or services provided by a business using a numeric system. The federal government uses NAICS codes and both coding systems as well as other commodity code systems are typically used by municipal governments.

III. LEGAL ANALYSIS CHAPTER

The City engaged GSPC to conduct a legally defensible Disparity Study assessing the City's procurement policies, procedures, and overall purchasing environment. The Disparity Study reviewed the demographics of firms that received awards as prime and/or Subcontractors under City contracts during the period January 1, 2016 through December 31, 2020 to determine whether a statistically significant disparity existed between the Availability of MBEs and WBEs in the City's relevant market area that are ready, willing, and able to do business with the City, and the actual Utilization of those firms under City contracts.

By ordinance, the City sets overall annual aspirational goals for the MWBE program.¹⁵ Individual procurements in excess of \$50,000.00 are evaluated on a contract-by-contract basis for subcontracting goals for participation by MWBEs.¹⁶ The City also has established aspirational Small Business Enterprise ("SBE") goals and bid preferences for Small Local Business Enterprises ("SLBEs") and Emerging Local Business Enterprises ("ELBEs").¹⁷

The analysis provided throughout this Legal Chapter underscores the reasons for which such a disparity study may be undertaken, the importance of methodological soundness, and the usefulness of the data and other information contained therein. Disparity studies can provide context regarding prior government procurement practices, a contemporary snapshot of current procurement practices, and a predictive preview of future challenges/needs.

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

GSPC also has included in the historical analysis below a significant decision of the United States Court of Appeals for the Sixth Circuit as it demonstrates the continuing significance and vitality of the prior Supreme Court precedent and highlights the legal foundation under which any challenge to the City's policies or programs will be analyzed.

A. HISTORICAL OVERVIEW – Development of the Law

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 effectively were invited by the United States Supreme Court in its seminal decision in *City of Richmond v. J. A. Croson Co.*,¹⁸ and subsequent judicial decisions have drawn a direct line between *Croson* and the utilization of disparity studies.¹⁹

¹⁵ Cincinnati Municipal Code § 324-13.

¹⁶ Cincinnati Municipal Code § 324-15.

¹⁷ Cincinnati Municipal Code §§ 323-11, 323-13, and 323-15.

¹⁸ 488 U.S. 469, 109 S. Ct. 706, 102 L. Ed. 2d 854 (1989).

¹⁹ 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

Disparity studies have become an important tool for governmental entities deciding whether to enact minority business programs or legislation as well as 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.

B. The Supreme Court’s Decision in *City of Richmond v. J.A. Croson Co.*

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

State and local laws that, on their face, favor one class of citizens over another, may run afoul of the Equal Protection Clause of the Fourteen Amendment to the United States Constitution. MWBE programs and legislation are among the laws that invoke such concerns. The nature of the differentiation (e.g., race, ethnicity, gender) upon which the program is based determines the level of judicial scrutiny applied by courts evaluating the constitutionality of such programs. As explained at greater length below, race-based programs are evaluated under a “strict scrutiny” standard, and gender-based programs may be subject either to strict scrutiny or to a less-rigorous “intermediate scrutiny” standard, depending on the federal circuit within which the public entity is located.

In *Croson*, the Supreme Court, applying a strict scrutiny standard, ruled that the City of Richmond failed to demonstrate a compelling state interest for its MBE program, which required prime contractors to subcontract 30% of the city’s construction contracts to minority-owned firms.²⁰ “Strict scrutiny” review involves two co-equal considerations: the need to demonstrate a compelling governmental interest in taking remedial action; and implementation of a program or method narrowly tailored to achieve/remedy the compelling interest.²¹ In *Croson*, the Supreme Court concluded that the City of Richmond failed to show identifiable discrimination in its construction industry, and thus it could not show that its minority set-aside program was necessary to remedy the effects of any purported discrimination.²² The Court reasoned that a 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.²³

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. It emphasized “[t]here 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.”²⁴ The Court concluded there was no *prima facie* case of a constitutional or statutory violation by anyone in the construction industry that might justify

studies to assess the disparity, if any, between availability and utilization of minority-owned businesses in government contracting.”).

²⁰ *Croson*, 488 U.S. at 505.

²¹ *Id.* at 485-86. The strict scrutiny standard is discussed in greater length in Appendix L, Expanded Legal Analysis.

²² *Id.* at 505-06.

²³ *Id.* at 479-80, 501-02.

²⁴ *Id.* at 480.

the City of Richmond's MBE program.²⁵ 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.²⁶

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.

Of note, the *Croson* Court stated that identified anecdotal accounts of past discrimination also could be used as part of the effort to meet the required compelling interest for local governments to enact race-conscious remedies.²⁷ However, conclusory claims of discrimination asserted by City officials 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.²⁸

Regarding the second prong of the strict scrutiny test, the *Croson* Court opined that Richmond's MBE program was not narrowly tailored to redress the effects of discrimination. For example, the Court reasoned 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.²⁹ Thus, the scope of the city's program was too broad.

Also, the Court reasoned that the 30% goal for MBE participation in the Richmond program was a rigid quota not related to identified discrimination, specifically criticizing the City for its lack of inquiry into whether a particular minority business, seeking racial preferences, had suffered from the effects of past discrimination.³⁰ The Court further noted the city failed to consider race-neutral alternatives to remedy the under-representation of minorities in contract awards.³¹ Finally, the Court noted that the city's MBE program contained no sunset provisions or findings needed to assess the continued need for the program.³²

After *Croson*, the Supreme Court and the federal circuit courts of appeal have provided additional guidance regarding the considerations, measurements, information, and features surrounding an MWBE program that will assist in protecting the program from constitutional challenge under a strict scrutiny analysis.

²⁵ *Id.* at 500, 505-06.

²⁶ *Id.* at 509.

²⁷ *Id.*

²⁸ *Id.* at 500.

²⁹ *Id.* at 506.

³⁰ *Id.* at 507.

³¹ *Id.* at 498, 507.

³² *Id.* at 510 ("Proper findings in this regard are necessary to define both the scope of the injury and the extent of the remedy necessary to cure its effects. Such findings also serve to assure all citizens that the deviation from the norm of equal treatment of all racial and ethnic groups is a temporary matter, a measure taken in the service of the goal of equality itself.").

These recommendations have, in many respects, provided a roadmap for disparity studies, which is discussed in greater detail in the Expanded Legal Analysis set forth in Appendix L.

C. The Supreme Court's Decision in *Adarand Constructors, Inc. v. Peña* and Subsequent Circuit Court Proceedings

Six years after its decision in *Croson*, the Supreme Court was again confronted with an equal protection challenge to a disadvantaged business program in *Adarand Constructors, Inc. v. Peña*.³³ This time, however, the program under challenge was enacted by the federal government, thus implicating the Fifth Amendment to the United States Constitution rather than the Fourteenth Amendment that was at issue with respect to the local program in *Croson*.

Vacating the decision of the United States Court of Appeals for the Tenth Circuit (the “Tenth Circuit”) and remanding for further proceedings, the Supreme Court ruled that federal programs are not reviewed for constitutionality under a more lenient standard than that which is applied to state and local programs (as had been indicated in some prior Supreme Court opinions), but rather, that strict scrutiny is to be applied to an analysis of the constitutionality of federal race-based programs as well.³⁴ Because the United States District Court for the District of Colorado (the “Colorado District Court”) and the Tenth Circuit had applied a lesser standard of review, the Supreme Court remanded the case for review of the federal program under the strict scrutiny standard, consistent with *Croson*.³⁵

On remand, the Colorado District Court essentially ruled that no program can meet the strict scrutiny standard – *i.e.*, it is “fatal in fact.”³⁶ The Tenth Circuit disagreed, and it upheld the federal program even under a strict scrutiny standard, finding both a compelling state interest and the required narrow tailoring to achieve such compelling interest.³⁷ Consistent with *Croson* and subsequent opinions, the Tenth Circuit described its task regarding the compelling state interest as follows:

[O]ur inquiry necessarily consists of four parts: First, we must determine whether the government's articulated goal in enacting the race-based measures at issue in this case is appropriately considered a "compelling interest" under the governing case law; if so, we must then set forth the standards under which to evaluate the government's evidence of compelling interest; third, we must decide whether the evidence presented by the government is sufficiently strong to meet its initial burden of demonstrating the compelling interest it has articulated; and finally, we must examine whether the challenging party has met its ultimate burden of rebutting the government's evidence such that the granting of summary judgment to either party is proper. We begin, as we must, with an inquiry into the meaning of “compelling interest.”³⁸

The court first found that the government’s proffered interest – “remedying the effects of racial discrimination and opening up federal contracting opportunities to members of previously excluded

³³ 515 U.S. 200, 115 S. Ct. 2097, 132 L.Ed.2d 158 (1995)

(*Adarand III*).

³⁴ *Id.* at 227.

³⁵ *Id.* at 237-38.

³⁶ *Adarand Constructors, Inc. v. Peña*, 965 F. Supp. 1556, 1580 (D. Colo. 1997) (*Adarand IV*).

³⁷ *Adarand VII*, 228 F.3d 1147.

³⁸ *Id.* at 1164.

minority groups” – is an appropriately compelling interest.³⁹ It then provided that both direct evidence and circumstantial evidence of discrimination could be considered in support of that interest.⁴⁰

Considering the specific evidence presented by the government to support its argument that remedial action was necessary, the *Adarand VII* court found the government demonstrated a “strong basis in evidence” for such action. Evidence of classic “old boy” networks of contractors that historically excluded minority firms, denial of access to capital based on race, and denial of or difficulty in obtaining union membership by minority firms established that minority contractors faced significant discriminatory barriers to business formation.⁴¹ The court also determined from the evidence that existing minority contractors faced barriers to competition for federal construction contracts due to “discrimination by prime contractors, private sector customers, business networks, suppliers, and bonding companies[.]”⁴²

In support of its position, the government produced statistical and anecdotal evidence taken from local disparity studies that demonstrated under-utilization of minority subcontractors (described in more detail below), and the effect on utilization rates when affirmative action programs or efforts were discontinued for one reason or another.⁴³

The court went on to discuss at length its reasoning that the government also adequately demonstrated that its program was narrowly tailored to achieve the compelling interest discussed previously.⁴⁴ In sum, the court found that the government satisfactorily met the following important factors: “the necessity for the relief and the efficacy of alternative remedies; the flexibility and duration of the relief, including the availability of waiver provisions; the relationship of the numerical goals to the relevant labor market; and the impact of the relief on the rights of third parties.”⁴⁵ The case was therefore returned to the district court for further proceedings “consistent with this opinion.”⁴⁶

D. The Sixth Circuit’s Decision in *Associated Gen. Contrs. of Ohio, Inc. v. Drabik*

Having the benefit of the Supreme Court’s guidance in *Croson* and *Adarand III*, the United States Court of Appeals for the Sixth Circuit (the “Sixth Circuit”) addressed the constitutionality of the State of Ohio’s Minority Business Enterprise Act (“MBEA”) in *Associated Gen. Contrs. of Ohio, Inc. v. Drabik*,⁴⁷ an opinion which remains among the most significant MWBE appellate decisions in the federal circuit in which the City of Cincinnati is located.

The Ohio MBEA at issue in *Drabik*, passed in 1980, set aside five percent (by value) of all state construction projects for bid only by certified MBEs.⁴⁸ Affirming the ruling of the district court, the Sixth Circuit determined that the state had not satisfied the strict scrutiny requirements as it failed to demonstrate a

³⁹ *Id.* at 1164-65 (“[W]e readily conclude that the federal government has a compelling interest in not perpetuating the effects of racial discrimination in its own distribution of federal funds and in remedying the effects of past discrimination in the government contracting markets created by its disbursements.”).

⁴⁰ *Id.* at 1166-1167.

⁴¹ *Id.* at 1168-70.

⁴² *Id.* at 1170-72.

⁴³ *Id.* at 1172-1175.

⁴⁴ *Id.* at 1176-1187.

⁴⁵ *Id.* at 1177 (quoting *United States v. Paradise*, 480 U.S. 149, 171, 107 S.Ct. 1053, 94 L.Ed.2d 203 (1987)).

⁴⁶ *Id.* at 1188.

⁴⁷ 214 F.3d 730, 735 (6th Cir. 2000).

⁴⁸ *Id.* at 733. There were additional provisions addressing MBE subcontracting. *Id.*

compelling state interest for a race-conscious remedial program and did not demonstrate that the MBEA was narrowly tailored, as required.⁴⁹

With respect to the compelling state interest requirement, the *Drabik* court first reasoned that a review of the legislative history for the MBEA revealed no express finding of past discrimination to justify or support the new program.⁵⁰ Turning then to the statistical evidence offered by the state, the court found the data relied on by the state to be outdated, limited in scope, and not particularly relevant to the specific set aside provision of the MBEA.⁵¹ More specifically, the court reasoned that the statistical analysis offered by the state improperly focused for availability on the number of minority businesses operating in the state in total, while the MBEA set aside applied only to construction projects:

The problem with Ohio's statistical comparison is that the percentage of minority-owned businesses in Ohio (7% as of 1978) did not take into account how many of those businesses were construction companies of any sort, let alone how many were qualified, willing, and able to perform state construction contracts. . . [T]he data does not distinguish minority construction contractors from minority businesses generally, and *a fortiori* makes no attempt to identify minority construction contracting firms that are ready, willing, and able to perform state construction contracts of any particular size.⁵²

Because GSPC separated and measured availability data by Industry Category and contract type (*e.g.*, Construction, Goods, Professional Services) in this Disparity Study, the concerns raised in *Drabik* in this regard have been avoided.

In addition to criticisms about the Availability analysis, the court also noted the lack of regression Analysis, *e.g.*, failure by the state in doing its statistical comparisons to consider “the relative size of the firms, either in terms of their ability to do particular work or in terms of the number of tasks they have the resources to complete.”⁵³ That is, the court reasoned that the state should have controlled for factors other than discrimination (*e.g.*, firm size, experience level) which may be causing or contributing to any numerical disparity identified. In the present Study, GSPC conducted such a Regression Analysis.

With respect to the narrow tailoring requirement, the court found the statute lacked narrow tailoring because (1) the MBEA suffered from both under inclusiveness and over inclusiveness (lumping together and not well-defining racial and ethnic groups included in the program without identified discrimination for each specific group); (2) the MBEA lacked a sunset date; and (3) the state failed to provide specific evidence that Ohio had considered race-neutral alternatives before adopting the plan to increase minority participation.⁵⁴

Though included in the narrow tailoring analysis, the *Drabik* court noted an additional concern with the state’s statistical proffer (regarding availability/utilization), which it dubbed a “fatal flaw”:

⁴⁹ *Id.* at 735-738.

⁵⁰ *Id.* at 735 (“In all the documentary evidence relating to the progress of [the MBEA] through the legislature, including drafts of bills, Legislative Service Commission summaries, and transcripts of floor debate, there is not one clear, unambiguous statement of a finding of discrimination to be found.”).

⁵¹ *See generally, id.*, at 735-36.

⁵² *Id.* at 736.

⁵³ *Id.* at 736-37.

⁵⁴ *Id.* at 739.

In addition to the foregoing problems, Ohio's own "underutilization" statistics suffer from a fatal conceptual flaw, as the district court noted: they do not report the actual use of minority firms; they only report the use of minority firms who have gone to the trouble of being certified and listed among the state's 1,180 MBEs. While it might be true that most or all of the relevant firms would have sought to take advantage of the special minority program, there is simply no examination of whether contracts are being awarded to minority firms who have never sought such preference, whether from principle, oversight, calculation of the worth of the program, or for some other reason, and who have been awarded contracts in open bidding.⁵⁵

The Sixth Circuit in *Drabik* reasoned that the State of Ohio's statistical evidence offered to support a race-conscious remedial program suffered from a "fatal flaw," in that the State failed to account in its utilization analysis for MBEs that were awarded state construction contracts but were not certified under the MBEA program.⁵⁶ *See supra*. There are many factors that distinguish the methodology in *Drabik* only counting certified firms and GSPC's methodology in only counting certified firms. Nonetheless, to avoid any doubt, in the present study, GSPC has undertaken the type of analysis invited (or required) by the court in *Drabik*. Specifically, GSPC has conducted in Appendices G, H, and I, an Availability, Utilization, and Disparity Analysis (respectively) of both certified MWBEs and uncertified MWBEs. This methodology therefore avoids the problem identified in *Drabik*, where the state did not properly count MBE participation because it did not measure non-certified MBE participation.

Drabik thus underscores that MWBE programs must be designed so that the benefits of the programs are targeted specifically toward those firms that faced discrimination in the relevant marketplace. To withstand a challenge, relief also must extend only to those minority groups for which there is evidence of discrimination.⁵⁷

A more detailed Legal Analysis can be found in Appendix L.

⁵⁵ *Id.* at 737.

⁵⁶ *Id.*

⁵⁷ *Id.*

IV. PURCHASING POLICIES, PRACTICES, AND PROCEDURES REVIEW

A. Introduction

This chapter is designed to review the written policies and practices of the City of Cincinnati (hereafter “City” or “Cincinnati”) with respect to purchasing and contracting, including related programs or efforts to enhance inclusion of Minority Business Enterprises and Women Business Enterprises (MBEs and WBEs, respectively, and MWBEs, collectively).

Cincinnati currently has a program that employs percentage-based utilization goals for MBEs and WBEs on contracts initially valued greater than \$50,000 for Construction, Professional Services, Other Services, and Goods/Supplies.⁵⁸ The City also establishes non-binding annual participation goals for MBE and WBE inclusion.⁵⁹ The City’s Minority and Women Business Enterprise Program was implemented in 2016 following a Disparity Study completed by Mason Tillman Associates, Ltd. in 2015.

Race- and gender-neutral programs for small businesses and local small businesses are also a part of the City’s procurement policies. These policies include contract goals, aspirational goals, bid preferences, evaluation preferences, and a sheltered market program for Small Local Business Enterprises (SLBEs) and Emerging Local Business Enterprises (ELBEs).⁶⁰

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 or differing interpretations of policies to determine whether there may be any effect on participation by small businesses and businesses owned by minorities and women.

At the end of the present Disparity Study, specific findings about the City of Cincinnati’s policies, practices, and procedures will be provided. Formal recommendations for improvement of the overall procurement program and greater achievement of its goals will also be provided given the findings.

B. Document Review and Personnel Interviews

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

- Cincinnati Municipal Code, including Chapters 320, 321, 323, 324, and 325;
- Ohio state statutes relating to contracting and procurement;
- The City of Cincinnati Procurement Manual (2016), Administrative Regulations relating to procurement, the Minority and Women Business Enterprise Program Rules and Regulations, and the Small Business Enterprise Program Rules and Regulations;
- The enabling legislation and by-laws for the Economic Inclusion Advocacy and Accountability Board (“EIAAB”);

⁵⁸ See generally, Cincinnati Municipal Code, Title III, Chapter 324, *et. seq.* (“Minority and Women Business Enterprise Program”); Sections 324-1-CS, and 324-15. See also City of Cincinnati Minority and Women Business Enterprise Program Rules and Regulations.

⁵⁹ Cincinnati Municipal Code, Title II, Chapter 324, Section 324-13.

⁶⁰ See generally, Cincinnati Municipal Code, Title III, Chapter 323, *et. seq.* (“Small Business Enterprise and Local Business Enterprise Programs”), and Chapter 321, *et. seq.* (“procurement and Disposal of Supplies, services and Construction”); Sections 323-11, 323-13, 323-15, 323-17, 323-19, 321-13, 321-15, 321-37, and 321-65.

- The government website, including the procurement, Economic Inclusion, and EIAAB webpages; and
- Other publicly available resources relating to City of Cincinnati procurement.

GSPC conducted policy interviews between July and September 2021 with decisionmakers and officials regularly engaging in purchasing and contracting for Cincinnati.

C. Overview of City of Cincinnati Purchasing

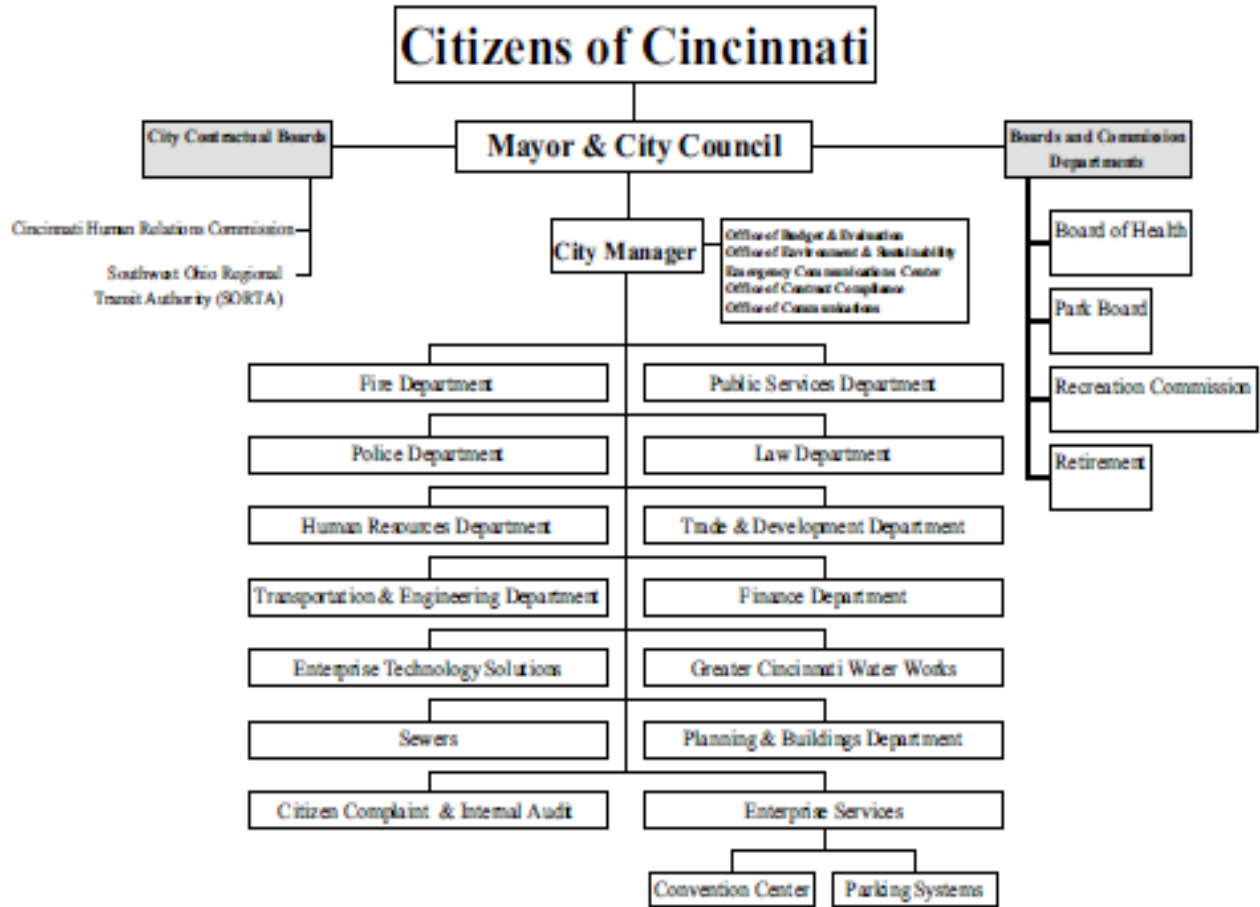
Procurement with the City of Cincinnati is a fairly de-centralized process for small purchases (less than \$5,000) but significantly more centralized for informal purchases exceeding \$5,000 and for competitively bid purchases, with the primary responsibilities being handled by the Purchasing Division. Following the disparity study finalized in 2015, there was a notable effort to include the City Manager’s office to a greater degree when competitive bidding is required, including oversight authority for award determinations, final approvals, and contract execution.⁶¹

By ordinance, the Department of Economic Inclusion (DEI) is charged with oversight of programs promoting diversity and inclusion, including affirmative action, small business and local small business enterprise programs, and minority business and women business enterprise programs.⁶²

The Organizational Chart below shows the overall City government structure, including the Mayor’s Office, the City Council, City Manager, and the various City departments during the Study Period (2015-2019).

⁶¹ Cincinnati Administrative Regulation No. 62 (“City Manager Approval of Bids, RFP/RFQS, and Contracts Prior to Release”).

⁶² Cincinnati Municipal Code, Title III, Section 323-25; Section 324-37; Section 325-5.



City of Cincinnati Approved Fiscal Year 2015 Budget, p. 3.⁶³

With respect to contract thresholds, informal procurement methods generally can be used by the City for contracts and purchases for \$50,000 or less. Contracts and purchases totaling more than \$50,000 require use of formal procurement (competitive bidding).⁶⁴ Special rules also apply to contracts valued in excess of \$250,000.⁶⁵

1. Informal Procurement

Informal procurement is generally used by the City for purchases of Goods, Construction, and non-Professional Services costing not more than \$50,000; within that threshold there are different options for purchases under \$5,000 and those between \$5,000 and \$50,000.⁶⁶

⁶³ After the Study Period there were some changes to the organizational structure for the City, most notably the Purchasing Division (now the “Office of Procurement”) moved from the Finance Department to an office under the City Manager.

⁶⁴ Cincinnati Municipal Code, Title III, Sections 321-11, 321-13, and 321-15. See also, Procurement Manual, p. 13.

⁶⁵ Cincinnati Municipal Code, Title III, Section 321-17.

⁶⁶ See generally, Procurement Manual, pp. 19-21; Cincinnati Municipal Code, Title III, Sections 321-11, 321-13.

Non-competitive decentralized purchases (called “PDQs”) may be used by City departments for purchases under \$5,000. This permits the purchase to be made “on a non-competitive basis from a certified SBE, ELBE, or SLBE supplier/contractor that is most convenient, without contacting other contractors/suppliers.”⁶⁷ The contract need not go to an SBE, ELBE, or SLBE, however, if the City Purchasing Agent determines that the award would be impractical or would not be in the best interests of the City based on price.⁶⁸

Purchases over \$5,000 but not greater than \$50,000 may be awarded through competitive quotes or competitive bidding. If the quote method is used, at least two quotes (but no more than three) must be obtained from certified SBES, ELBEs, or SLBEs listed in the relevant commodity code(s).⁶⁹ If the lowest and best quote is not provided by an SBE, ELBE, or SLBE, they are given the opportunity to match the lowest and best quote to get the award.⁷⁰ Finally, the award may be made by the Chief Procurement Officer without the need for City Manager approval.⁷¹

The City permits the use of Procurement Cards (P-Cards) for small dollar purchases and travel expenses. The purchasing limits on the P-Cards are not standardized, but they are generally permitted for purchases under \$3,000. The P-Cards are currently issued by U.S. Bank; interviewees confirmed that P-Card purchases are not tracked for MBE or WBE utilization.

There are no MBE or WBE goals, bid preferences, set-asides, or other race-based or gender-based benefits in these informal procurement methods. MBE and/or WBE goals may be applied to contracts over \$50,000.⁷²

2. Formal Procurement

For Construction projects and purchases of goods and services costing more than \$50,000, competitive bidding, or formal procurement, generally is required consistent with the City ordinances.⁷³ The City utilizes Requests for Proposals (RFPs) and Invitations to Bid (ITBs) in the competitive procurement process.⁷⁴ Pursuant to Administrative Regulation No. 62, the City Manager must approve all awards/contracts over \$50,000.⁷⁵

⁶⁷ Procurement Manual, pp. 19-20; Cincinnati Municipal Code, Title III, Section 321-11.

⁶⁸ Id.

⁶⁹ Cincinnati Municipal Code, Title III, Section 321-13; Procurement Manual, p. 20. If there is only one SBE, ELBE, or SLBE in the commodity code, two additional quotes must be obtained from non-SBEs. Id.

⁷⁰ Id.

⁷¹ Procurement Manual, p. 20; Cincinnati Municipal Code, Title III, Section 321-13(a).

⁷² Procurement Manual, p. 15.

⁷³ Cincinnati Municipal Code, Title III, Section 321-15. See also, Procurement Manual, p. 23.

⁷⁴ Procurement Manual, pp. 13-14. The City’s online vendor portal (Vendor Self Service or “VSS”) is used to send notification of bid opportunities to vendors – including MBEs, WBEs, SBES, ELBEs, and SLBEs – in the commodity code(s). Id., at 24. Policy interviews revealed concerns that many smaller firms (including MWBEs) have had difficulty fully and accurately completing bid paperwork resulting in their bids being thrown out. This may be creating a barrier to greater MWBE participation, according to interviewees.

⁷⁵ For contracts valued over \$250,000, the Chief procurement Officer can award the contract to the lowest and best bidder with the approval of the City Manager. See Procurement Manual, p. 30; Administrative Regulation No. 62, pp. 1-2.

In evaluating formal, competitive bids or proposals, preferences can be given to MBEs, WBEs, SBEs, ELBEs, and SLBEs at the discretion of the Chief Procurement Officer.⁷⁶

As discussed more fully below, contracts valued over \$50,000 are evaluated for MWBE contract goals where the initiating department determines subcontracting possibilities exist.⁷⁷ Once a determination is made there is a potential for subcontracting, the procuring department must submit either a Goal Information Sheet or a Waiver Request to DEI for an MBE and/or WBE goal determination.⁷⁸

3. Exceptions to Formal Bidding Requirements

Exceptions from the City's formal procurement procedures include emergency purchases, single available source purchases, direct awards, and sole source purchases.⁷⁹ In each scenario, exempt purchases under \$50,000 may be made by the Chief Procurement Officer but purchases \$50,000 or more also require the approval of the City Manager.⁸⁰

4. Qualifications-Based Procurement

The City has a specific Administrative Regulation (No. 23) that governs contracts for Professional Services.⁸¹ Professional services contracts are awarded through open and fair competition using either RFP or RFQ methods, and recommendations for awards are made by evaluation committees made up of at least three individuals.⁸² The Chief Procurement Officer approves awards for contracts less than or equal to \$50,000, and the City Manager approves awards over \$50,000.⁸³

Administrative Regulation No. 23 provides that MBE, WBE, and SBE inclusion in Professional Services contracts "shall be generated to the maximum extent possible," and that economic inclusion must be one of the selection criteria for such awards.⁸⁴

Also, "as needed" or "master" agreements (a subset of Multiple Award Contracts or "MACs") may be used for Professional Services contracts, and vendor rotation is used in such scenarios.⁸⁵

⁷⁶ Procurement Manual, pp. 28-29; City of Cincinnati Request for Proposal (RFP) Manual, p. 15; Cincinnati Municipal Code, Title III, Sections 321-37, 321-65, 323-13, 323-15, 324-31, and 324-33.

⁷⁷ Procurement Manual, p. 15; Administrative Regulation No. 62, p. 4; Cincinnati Municipal Code, Title III, Sections 324-7, 324-15, 324-19.

⁷⁸ Id.

⁷⁹ Procurement Manual, pp. 32-34; Cincinnati Municipal Code, Title III, Sections 321-85, 321-86, 321-87, and 321-89; Administrative Regulation No. 34.

⁸⁰ Id.; see also Administrative Regulation No. 62. Additionally, emergency purchases of \$50,000 or more require the approval of the City Solicitor. Procurement Manual, p. 32; Administrative Regulation No. 34.

⁸¹ See also Cincinnati Municipal Code, Title III, Section 321-19.

⁸² Administrative Regulation No. 23, pp. 1-2.

⁸³ Id., at p. 2.

⁸⁴ Id., at p. 2.

⁸⁵ Administrative Regulation No. 62, p. 2 ("[W]hen more than one contractor has been awarded a contract to provide the same services on an as-needed basis, work is to be assigned to the awarded contractors on a rotational basis or via an abbreviated request for qualifications/proposal (RFQ/P) process.").

5. Cooperative and Joint Purchasing

Cooperative purchasing is authorized by ordinance and allows the City to participate in contracts procured by the State of Ohio, other political subdivisions or agencies in the State, the federal government, or state or national associations or alliances for purchasing.⁸⁶ Before pursuing cooperative purchasing, the Purchasing Division must check to see whether any City-certified MBEs, WBEs or SBEs can provide the goods and services.⁸⁷

As to joint purchasing, the Procurement Manual states as follows:

For the purpose of aggregating quantities and requirements of multiple entities to take advantage of the economies of scale associated with bulk purchasing, the Chief Procurement Officer may permit one or more other political subdivisions to participate in contracts into which the City has entered for the acquisition of equipment, materials, supplies, or services, and may charge those political subdivisions that participate a reasonable fee to cover any additional costs incurred as a result of their participation.⁸⁸

6. “Blanket” Contracts

The City’s Procurement Manual provides that City departments can obtain standard equipment, such as office supplies, uniforms, and IT equipment, through “blanket” purchasing arrangements/contracts.⁸⁹ Using blanket agreements allows the various departments to obtain needed supplies at lower prices, benefiting from bulk purchasing.⁹⁰

7. Bundling and Unbundling

Cincinnati Municipal Code, Title III, Section 324-17(c) provides: “All contracting opportunities must be evaluated in an effort to determine whether the total requirements of a contract may be unbundled or divided into smaller contracts in order to provide reasonable opportunities for participation by MBEs and/or WBEs.” Outside the context of MBE and WBE inclusion, the City cautions that contracts should not be unbundled to avoid contract thresholds that may affect formal or informal procurement.⁹¹

⁸⁶ Procurement Manual, pp. 35-36; Cincinnati Municipal Code, Title III, Section 321-97.

⁸⁷ Procurement Manual, p. 35 (“In the event there are City-certified MWBEs or SBEs capable of providing goods and services, the department should prepare to go through the procurement procedure appropriate for the dollar threshold in question in order to give City-certified firms an opportunity to provide the goods and services to the City at a reasonable price.”).

⁸⁸ *Id.*, at p. 36.

⁸⁹ Procurement Manual, p. 9. (“City purchasing may combine the quantities of multiple departments to award “blanket contracts” for standard items such as office supplies, uniforms, work boots, desktop computers and laptops, etc., which are used by several departments.”).

⁹⁰ *Id.* (“As a general rule, the City will realize greater savings by purchasing in larger volumes. Vendors may price supplies and services more aggressively for larger contracts and larger contracts will often attract greater competition. Volume purchasing also results in administrative efficiencies for the Purchasing Division in that it allows the Division to concentrate limited resources on a few large procurements rather than managing many small procurements.”).

⁹¹ Procurement Manual, p. 13. (“City departments must avoid purposely splitting bids. Bid splitting is knowingly causing or conspiring to cause the division of any procurement for the purpose of evading the requirements of the law.”).

D. Bonding, Insurance, and Prompt Pay Issues

1. Bonding and Insurance

Bid bonds are discretionary on the part of the City Purchasing Agent. While certain performance bonds are also discretionary, by ordinance performance bonds are required for Construction contracts in excess of \$50,000 and for demolition contracts of any dollar value.⁹²

Specific to SBEs, SLBEs, and ELBEs, DEI staff and procurement staff are directed to “review individual solicitations to ensure that insurance and bonding provisions are not excessive; assist SBEs, SLBEs, and ELBEs in obtaining insurance and surety bonds where necessary in the performance of contracts[.]”⁹³

Interviews of City staff indicated they have received some complaints from bidders or potential bidders that bond requirements were a barrier to participation in City contracting. Any specific concerns reported by vendors or others during the anecdotal evidence phase of the Study are addressed in the Anecdotal Chapter of this report.

Insurance requirements likewise were cited in interviews with some City staff as a potential barrier to participation. Insurance requirements are discretionary on the part of the City and are provided or addressed in the bid documents accompanying a solicitation.⁹⁴ Vendor input on insurance requirements also is addressed in the Anecdotal Chapter of this report.

2. Prompt Payment

The State of Ohio has a prompt payment statute for payment of Subcontractors, requiring primes to pay Subcontractors and materialmen within ten (10) days of receipt of payment from the owner (public or private) of the property on which the invoiced work was performed.⁹⁵ Similar provisions are made for the payment of lower-tier Subcontractors by their higher-tier Subcontractors.⁹⁶ There is no Ohio provision for the timing of payments to Prime Contractors, however. The City promulgated its own prompt payment ordinance which likewise requires primes to pay Subcontractors within ten (10) days of payment by the City to the prime, but also provides the City shall pay primes within thirty (30) days of receipt by the City of a “complete and responsive invoice,” which is defined in significant detail in the ordinance.⁹⁷

⁹² Cincinnati Municipal Code, Title III, Section 321-135. See also Cincinnati Municipal Code, Title III, Sections 321-13, 321-17, 321-19 (addressing bid and performance bonds).

⁹³ Cincinnati Municipal Code, Title III, Section 323-33(a). In providing such assistance DEI and procurement staff may “package contracts so that dollar amounts do not require bonding; encourage prime contractors to waive bonding or assist SBE, SLBE and ELBE subcontractors in obtaining bonding; and encourage staged bonding where feasible, when bonding is carried over from one project stage to the next[.]” Id.

⁹⁴ See “General Conditions, Instructions, and Information for Bidder”, ¶4 (“To this extent the bidder or contractor agrees to furnish adequate Public Liability and Property Damage Insurance, the amount of which will be determined by the City wherever such insurance is deemed necessary. When so required the types and amounts of insurance to be provided is set forth in the Bid Document.”).

⁹⁵ Ohio Rev. Code, Section 4113.61(A)(1).

⁹⁶ Ohio Rev. Code, Section 4113.61(A)(2).

⁹⁷ Cincinnati Municipal Code, Title III, Sections 319-1-C, 319-5, and 319-9.

Interviewed City staff shared there have been consistent complaints about prompt payment – both from primes and from Subcontractors. Any shared vendor experience related to prompt payment are addressed in the Anecdotal Chapter of this report.

E. Small Business Enterprise and Local Business Enterprise Programs

As indicated above, Cincinnati has enacted race- and gender-neutral legislation to increase procurement participation by SBEs, ELBEs, and SLBEs, which are included in the City’s “economic inclusion initiatives.”⁹⁸ The Small Business Enterprise and Local Business Enterprise Programs are administered by DEI and include, among other tools, options for bid preferences, annual aspirational SBE goals, mandatory SLBE and ELBE subcontracting goals, and a sheltered market for ELBEs and SLBEs.⁹⁹

1. Overview of Key Programmatic Elements

The City has adopted the federal Small Business Association size standards for SBEs.¹⁰⁰ The City has established by ordinance the following program goals for SBE inclusion: “The City of Cincinnati’s aspirational annual goal for SBE participation shall be 30% of the City’s total dollars spent for Construction,

⁹⁸ Cincinnati Municipal Code, Title III, Section 323-1-E.

⁹⁹ Cincinnati Municipal Code, Title III, Sections 323-11 through 323-19.

¹⁰⁰ Cincinnati Municipal Code, Title III, Section 323-1-S3:

"Small business enterprise" or "SBE" shall mean a firm for which the gross revenue or number of employees averaged over the past three years, inclusive of any affiliates as defined by 13 C.F.R. Sec. 121.103, does not exceed the size standards as defined pursuant to 15 U.S.C. Section 632 and 13 C.F.R. Section 121.101, et seq. and for which the personal net worth of each owner does not exceed \$750,000.00. An SBE also must meet all of the following:

- (a) Such business shall have been in existence at least one year prior to application for participation in the SBE program;
- (b) Such business shall have maintained fixed offices located within the geographic boundaries of Hamilton County for at least one year prior to application for certification as an SBE;
- (c) Such business must perform a commercially useful function;
- (d) Such business has been certified by the City;
- (e) The personal net worth of each owner of such business cannot exceed \$750,000.00 at the time of initial certification or recertification, or at any time during the certification period. If an owner is married, the aggregate net worth of the owner and his or her spouse may not exceed \$750,000.00. Net worth shall be determined as follows:
 - (1) Contingent liabilities, transfers to immediate family members within two years of the application for SBE certification or recertification, and the value of retirement accounts not subject to a significant withdrawal tax penalty are included in the calculation of net worth; but
 - (2) Equity in the owner's primary residence, the value of the owner's ownership interest in the business applying for SBE certification or recertification, and the value of retirement accounts subject to a significant withdrawal tax penalty are not included in the calculation of net worth.
- (f) Each individual upon whom eligibility is based and his or her spouse must file a separate, detailed personal financial statement;
- (g) All owners of such business must be United States citizens;
- (h) Such business or joint venture must meet the definition of independent ownership and control; and
- (i) Franchisees and brokers are not eligible to be certified as SBEs.

5% of the City's total dollars spent for supplies/services, and 15% of the City's total dollars spent for Professional Services."¹⁰¹

Briefly stated, firms qualify for SLBE certification if they are independently owned and operated, with owners actively involved day-to-day, no more than thirty-five (35) full-time employees, annual revenues (averaged) of no more than \$1,000,000, and the principal place of business (or significant employee presence) within the City.¹⁰²

The standards for ELBEs also expressly are provided in the ordinance and are in many respects the same as those noted above for SLBEs. The differences between the two certification types are that an ELBE must have had no more than five (5) full time employees at any one time during its existence, annual revenues (averaged over the life of the business) of no more than \$250,000, have been in existence for fewer than five (5) years, and have received no more than \$250,000 in payments under City contracts in the year immediately preceding application.¹⁰³

¹⁰¹ Cincinnati Municipal Code, Title III, Section 323-11(a). "The SBE participation rates will be monitored, tracked internally, and reported quarterly to city council." *Id.*

¹⁰² Cincinnati Municipal Code, Title III, Section 323-1-S4:

"Small local business enterprise" or "SLBE" shall mean a firm that:

- (a) Is an independently owned and operated for-profit business that is not a broker, is not a subsidiary of another business, and is not dominant in its field of operation;
- (b) Performs a commercially useful function;
- (c) Has had no more than thirty-five full-time employees at any one time during the last three years;
- (d) Has owners who are actively involved in day-to-day management and control of the business;
- (e) Has annual gross receipts, averaged over the past three fiscal years of not more than \$1,000,000.00;
- (f) Has either a principal place of business or significant employee presence within the geographic limits of the city of Cincinnati;
- (g) Has been established for at least one year or the owners have at least three years of relevant experience prior to forming or joining the business; and
- (h) Has not received, in the year immediately preceding the initial certification application, more than \$500,000.00 in city payments under contracts awarded through an open and competitive bidding process, awarded through the sheltered market program, or awarded directly through a non-competitive process.

See also, Section 323-1-S2 ("Significant employee presence" shall mean twenty-five percent or more of a firm's total number of full- and part-time employees are domiciled within the geographic limits of the city of Cincinnati.); Section 323-9(j) on graduation from the SLBE program.

¹⁰³ Cincinnati Municipal Code, Title III, Section 323-1-E1:

"Emerging local business enterprise" or "ELBE" shall mean a firm that:

- (a) Is an independently owned and operated for-profit business that is not a broker, is not a subsidiary of another business, and is not dominant in its field of operation;
- (b) Performs a commercially useful function;
- (c) Has had no more than five full-time employees at any one time during its existence;
- (d) Has owners who are actively involved in day-to-day management and control of the business;
- (e) Has annual gross receipts, averaged over the life of the business, of not more than \$250,000.00;
- (f) Has either a principal place of business or significant employee presence in the city of Cincinnati;
- (g) Has been in existence for less than five years; and
- (h) Has not received, in the year immediately preceding the certification application, more than \$250,000.00 in city payments under contracts awarded through an open and competitive bidding process, awarded through the sheltered market program, or awarded directly through a non-competitive process.

a. Bid Preferences and Evaluation Preferences

For SLBE bids for contracts valued between \$250,000 and \$1,000,000, the SLBE may be awarded the contract when its bid is no more than 10% greater than the lowest and otherwise best bid (subject to certain restriction enumerated in the ordinance).¹⁰⁴ Similarly, ELBEs may receive the same bid preference for contracts valued between \$50,000 and \$100,000.¹⁰⁵

SLBEs and ELBEs also may receive up to ten (10) additional preference points in the evaluation of contracts for Professional Services, including architectural or engineering services.¹⁰⁶ These preferences apply to SLBE responses for contracts valued between \$100,000 and \$250,000, and to ELBE responses for contracts valued between \$50,000 and \$100,000.¹⁰⁷

b. Mandatory Subcontracting and Sheltered Market

By ordinance, the DEI Director may, “on a contract-by-contract basis, require that a predetermined percentage of a specific contract, up to 30%, be subcontracted to certified SLBEs or ELBEs.”¹⁰⁸ For such contracts, the bidder must include with its bid a “Subcontractor utilization plan” identifying the certified SLBEs or ELBEs that will be utilized to meet those goals and the amount of the contract to be subcontracted to each.¹⁰⁹ If the established goal is not met, the bidder must submit a request for a full or partial waiver supported by evidence of SLBE or ELBE unavailability and documentation of good faith efforts to achieve the goal.¹¹⁰ Absent a waiver, the failure of a contractor to maintain the SLBE/ELBE participation level is grounds for termination of the contract and other contractual remedies.¹¹¹

The City has also provided a sheltered market program for SLBE and ELBE inclusion, which permits certain contracts to be identified for bidding or response only by certified SLBEs and ELBEs.¹¹² Specifically, the DEI Director, in consultation with the Purchasing Agent and the user department, may select certain contracts valued at \$250,000 or less for exclusive competition by SLBEs (or a joint venture with SLBEs), and may designate certain contracts valued at \$50,000 or less for exclusive competition by ELBEs.¹¹³ The

See also, Section 323-9(j) on graduation from the ELBE program.

¹⁰⁴ Cincinnati Municipal Code, Title III, Section 323-13(a):

The city may award a contract for Construction, Professional Services, non-Professional Services, or supplies, as qualified in subsection (b) of this section, to an SLBE or ELBE that submits, in response to an invitation to bid, a bid that is no more than ten percent greater than the lowest and otherwise best bid unless:

- (1) The award to the SLBE or ELBE would result in a total contract cost that is, on an annual basis, \$25,000.00 or more higher than the lowest and otherwise best bid; or
- (2) The award to the SLBE or ELBE would cause the total contract cost to exceed the city's budgeted funding for the contract.

¹⁰⁵ Id.

¹⁰⁶ Cincinnati Municipal Code, Title III, Section 323-15.

¹⁰⁷ Id.

¹⁰⁸ Cincinnati Municipal Code, Title III, Section 323-17(a).

¹⁰⁹ Cincinnati Municipal Code, Title III, Section 323-17(b).

¹¹⁰ Cincinnati Municipal Code, Title III, Sections 323-17(b) and (c).

¹¹¹ Cincinnati Municipal Code, Title III, Section 323-17(d).

¹¹² Cincinnati Municipal Code, Title III, Section 323-19.

¹¹³ Id.

factors or considerations to be applied by the DEI Director (in consultation), are set forth in the program ordinance.¹¹⁴

There are several supportive services or similar efforts that DEI is to undertake in order to achieve greater SLBE and ELBE participation.¹¹⁵ These include, for instance, bonding and insurance assistance (including reduction or waiver of bonds or insurance requirements at the discretions of DEI); forecasting and timely notification to permit SLBEs and ELBEs to prepare bids, quotes, or proposals; financing assistance to help manage cash flow challenges; workshops and other assistance to improve bidding, inform pricing practices; accounting and marketing help; and coordination and referral to existing business development organizations.¹¹⁶

Of note, policy interviews revealed some concern that these small business programs are dominating the inclusion space, to the detriment of MWBEs – an issue that, it was suggested, could be ameliorated by “cross-walking” small business services and programs with the MWBE program (see below), increasing focus on, or outreach to, MWBEs that are also small businesses.¹¹⁷

2. Certification of SBEs, SLBEs, and ELBEs

DEI certifies SBEs, SLBEs, and ELBEs for participation in these program elements.¹¹⁸ Certifications last two years, subject to graduation from the program by SLBEs/ELBEs.¹¹⁹

F. Race-Conscious MWBE Program

Cincinnati has a commitment to greater participation by MWBEs in City purchasing, and that commitment gained evidentiary support from the 2015 disparity study. Specifically, the City promulgated its Minority Business Enterprise and Women Business Enterprise Program effective January 1, 2016, providing extensive legislative findings in support of the new program.¹²⁰

The City expressly provided its policy and purpose as related to MWBE inclusion:

It is the policy of the City of Cincinnati to promote equal business opportunity in the City's contracting process by ensuring full and equitable participation by MBEs and WBEs in the provision of goods and services to the City on a contractual basis. This policy is intended to

¹¹⁴ Cincinnati Municipal Code, Title III, Section 323-19(c):

(c) The director, in consultation with the purchasing agent and the contracting agency, must consider the following factors when determining whether a particular contract is eligible for the sheltered market program:

(1) Whether there are at least three certified SLBEs or ELBEs that are available to participate in the sheltered market program for the selected contract and that have the capacity to perform the contract;

(2) The degree of Underutilization of SLBEs and ELBEs in such contracts in the specific industry category during the immediately prior twelve months; and

(3) The extent to which the city's SLBE and ELBE prime contractor utilization goals, as set annually by the director in consultation with the purchasing agent, are being met.

¹¹⁵ Cincinnati Municipal Code, Title III, Sections 323-25, 323-33.

¹¹⁶ Id.

¹¹⁷ This is contemplated in the legislation. For example, DEI is expressly permitted to utilize the same supportive services or affirmative procedures applicable to SBEs, SLBEs, and ELBEs for MWBEs. See Cincinnati Municipal Code, Title III, Section 324-45 (referencing Section 323-33, discussed supra).

¹¹⁸ Cincinnati Municipal Code, Title III, Sections 323-7, 323-9.

¹¹⁹ Id.

¹²⁰ Cincinnati Municipal Code, Title III, Section 324-5(a)(1-6).

further the City’s compelling interest in stimulating economic development through the support and empowerment of all segments of the local business community.

The purpose of the MBE and WBE program is to provide a necessary race- and gender-conscious tool for the City to use, along with its race- and gender-neutral programs, to ensure that all segments of its local business community have a reasonable and significant opportunity to participate in City contracts. The program shall be regularly evaluated using accumulated availability and utilization data to determine whether specific program provisions may require modification, expansion, or curtailment during the effective period of this chapter.¹²¹

The program applies “to all contracts for Construction, Professional Services, and non-Professional Services and supplies valued at \$50,000 or more for which a contractor provides Goods or services to the City,” and is implemented by DEI.¹²²

1. Overview of Key Programmatic Elements

a. Annual Aspirational Goals, Contract-by-Contract Goals, and Subcontractor Utilization Plans

Non-binding, annual MBE and WBE participation goals are to be set and reviewed every year by the DEI Director in consultation with the Purchasing Agent with the purpose of evaluating the overall effectiveness of the program and identifying areas for modification or increased focus.¹²³

The MWBE program also includes contract-by-contract goals on projects, valued at \$50,000 or more, deemed appropriate for goal setting by the DEI Director in consultation with the Purchasing Agent.¹²⁴ The DEI Director shall apply a number of factors in determining whether MWBE goals are appropriate for a project.¹²⁵ Once such goals are set, they become a part of the contract with the vendor obtaining the award.¹²⁶ Moreover, all City departments are responsible for ensuring, if MWBE goals are applicable, that bids, RFPs, or RFQs comply with the program requirements applicable solicitation, good faith efforts at MWBE goal achievement are made and documented, and that the contractor ultimately fulfills its

¹²¹ Cincinnati Municipal Code, Title III, Section 324-5(b) and (c).

¹²² Cincinnati Municipal Code, Title III, Sections 324-7, 324-37.

¹²³ Cincinnati Municipal Code, Title III, Section 324-13.

¹²⁴ Cincinnati Municipal Code, Title III, Section 324-15.

¹²⁵ Cincinnati Municipal Code, Title III, Section 324-15(b):

In determining the appropriateness for inclusion in the program and setting the goals on a contract, the director must consider each of the following elements:

- (1) The availability in the particular industry classification and industry of the MBEs and WBEs that are qualified and willing to provide Goods, expertise and services required by the contract;
- (2) The level of utilization of MBEs and WBEs in past contracts awarded by the city;
- (3) The contract specifications;
- (4) The extent of any adverse impact on non-MBEs and non-WBEs; and
- (5) Any other factor deemed by the director to be relevant to the determination.

¹²⁶ Cincinnati Municipal Code, Title III, Section 324-15(d).

commitment to MWBE participation.¹²⁷ Policy interviews with City staff indicated that MWBE goals are often not met by bidders/respondents, requiring re-solicitation or a change in the goal.

MWBE goals also may be subject to a waiver or reduction by the DEI Director both pre-bid (sought by the contracting department) or post-award (sought by the contractor).¹²⁸

In addition to any other applicable requirements, invitations to bid, RFPs and RFQs must include a requirement that the bidder or respondent include in its bid or response either a certified MWBE Subcontractor utilization plan in which the bidder or respondent commits to utilize certified MBEs and/or WBEs in a percentage that equals or exceeds the applicable contract goals or a waiver or reduction request in compliance with Section 324-21(b).¹²⁹

Failure of a bidder to include a Subcontractor utilization plan or a waiver or reduction request renders the bid non-responsive.¹³⁰ Once awarded, failure by a contractor to comply with the MWBE participation levels set forth in its utilization plan during the term of the contract is a material breach of the contract.¹³¹

b. Prime Contractor Capacity Building and Bid and Price Preferences

“To promote the award of City contracts to certified MBEs or WBEs in an effort to remedy identified disparities in prime contracts historically awarded to MBEs or WBEs, preference points may be awarded to a response to an RFP or RFQ for Professional Services submitted by an MBE or WBE as provided in Section 324-31 of this chapter, and price preferences may be applied to a bid submitted by an MBE or WBE for goods and services prime contracts as provided in Section 324-33 of this chapter.”¹³²

MWBEs can receive up to ten (10) evaluation preference points on RFPs or RFQs for prime Professional Services contracts.¹³³ When an MWBE bids on such contracts as part of a joint venture, preference points are applied on a *pro rata* basis consistent with the division of ownership and work as among MWBE and non-MWBE members of the joint venture.¹³⁴

Price preferences are also available to MWBEs seeking awards as Prime Contractors for eligible non-Professional Services contracts or supply contracts.¹³⁵ Such preferences may be applied when the MWBE submits a bid that is no more than 5% greater than the lowest and otherwise best bid – unless either “[t]he award to the MBE or WBE would result in a total contract cost that is, on an annual basis, \$25,000.00 or more higher than the lowest and otherwise best bid,” or “[t]he award to the MBE or WBE would cause the total contract cost to exceed the City’s budgeted funding for the contract.”¹³⁶

MWBE utilization was tracked by the City during the Study Period using B2G Now software, which it continues to use, and the website for the Office of Procurement provides links to historical data (throughout

¹²⁷ Cincinnati Municipal Code, Title III, Section 324-17.

¹²⁸ Cincinnati Municipal Code, Title III, Sections 324-21, 324-23.

¹²⁹ Cincinnati Municipal Code, Title III, Section 324-19(a).

¹³⁰ Cincinnati Municipal Code, Title III, Section 324-19(b).

¹³¹ Cincinnati Municipal Code, Title III, Section 324-19(c).

¹³² Cincinnati Municipal Code, Title III, Section 324-29.

¹³³ Cincinnati Municipal Code, Title III, Section 324-31.

¹³⁴ *Id.*

¹³⁵ Cincinnati Municipal Code, Title III, Section 324-33.

¹³⁶ Cincinnati Municipal Code, Title III, Sections 324-33(a), (b).

the Study Period) that includes contracting opportunities, bid tabs, MWBE and/or SBE goals attached to contracts, and awards.¹³⁷

2. Certification

DEI certifies MBEs, WBEs, and MWBEs for participation in these program elements.¹³⁸ An eligible “Minority Group Member” (as defined in Section 324-1-M1) is “a member of the following groups for which the [2015] disparity study found a statistically significant Underutilization for the following contracts: (a) for Construction contracts and Professional Services contracts, African-Americans; and (b) for non-Professional Services and supplies contracts, African-Americans and Asian Americans.”¹³⁹ Certifications last two years.¹⁴⁰ Policy interviews indicated some “quasi-reciprocal” certification, but there is no provision for such process in the program as written. Some City staff interviewees also shared concerns that the certification process may be too involved, confusing, or invasive for certain small MWBEs, ultimately reducing the number of otherwise-available MWBEs for the above program elements.

3. Business Development Resources

The DEI publishes a Business Resource Guide designed to assist small businesses and MWBEs increase their capacity and otherwise further develop their ability to seek contracting opportunities with the City.¹⁴¹

¹³⁷ <https://data.cincinnati-oh.gov/Fiscal-Sustainability/Business-Opportunities-Archived-/pid3-z56k/data>

¹³⁸ Cincinnati Municipal Code, Title III, Section 324-11:

Requirements. To be eligible for certification as an MBE, each applicant must meet the definition of an MBE in Section 324-1-M. To be eligible for certification as a WBE, each applicant must meet the definition of a WBE in Section 324-1-W1.

(b) Certification Process.

(1) A business seeking certification as an MBE or WBE must:

(A) Submit an application to the department on the prescribed form, affirming under penalty of perjury that the business qualifies as a city of Cincinnati MBE or WBE as those terms are defined in Section 324-1-M or Section 324-1-W1, respectively; and

(B) If requested by the department, the applicant must provide any and all materials and information necessary to demonstrate active participation in the control, operation, and management of the business.

(2) The department will review and evaluate applications and may reject an application based on one or more of the following: the applicant does not meet the requirements of the definition of an MBE or WBE, as applicable; the application is not complete; the application contains false information; or the applicant has not provided materials or information requested by the director.

(3) The director will make a certification determination within 90 days after the date the city receives a satisfactorily completed application from the applicant. If certification is denied, the director will notify the applicant in writing and specify the reason(s) for the denial.

(4) Firms certified as an MBE or WBE by other government agencies will be required to be certified under this chapter regardless of other certification. The city manager may provide by rules and regulations for an expedited or summary process for certification by the city if the business has a current MBE or WBE certification from agencies specifically identified in those rules and regulations.

¹³⁹ Cincinnati Municipal Code, Title III, Section 324-1-M1.

¹⁴⁰ Cincinnati Municipal Code, Title III, Section 324-11(c).

¹⁴¹City of Cincinnati Department of Economic Inclusion, Business Resource Guide (Updated 2018) (“The City of Cincinnati Department of Economic Inclusion’s goal is to ensure economic opportunity and inclusion for all citizens seeking to do business with the City of Cincinnati and serve as a catalyst for the growth of Minority- and Women-owned businesses in the City and throughout the region. The Department of Economic Inclusion serves as a resource for small business information.”). <https://www.cincinnati-oh.gov/inclusion/resources-directories/dei-business-resource-guide/>

The resources referenced and provided in this Guide include: 1) Licensing and Regulatory Resources; 2) Business Technical Assistance; 3) Chambers of Commerce; 4) Certification and Registration; 5) Contracting Opportunities; and 6) Business Financing.¹⁴²

G. The Economic Inclusion Advocacy and Accountability Board (EIAAB)

In 2014, the City's Mayor established the Cincinnati Economic Inclusion Advisory Council, intending to "make recommendations and provide advice to the City on ways to promote economic inclusion within the City[.]"¹⁴³ Subsequently, in August 2016, the City Council passed an ordinance¹⁴⁴ creating the Economic Inclusion Advocacy and Accountability Board ("EIAAB") "to support and assist the relevant City departments in achieving the City's goals for economic inclusion[.]"¹⁴⁵ The EIAAB was also codified in the Municipal Code.¹⁴⁶ By ordinance, the EIAAB consists of up to 25 members appointed by the Mayor and approved by the City Council, and members serve three-year terms.¹⁴⁷

The express mission of the EIAAB is "to promote economic inclusion, serve as a public advocate for the Department of Economic Inclusion, assist the Department of Economic Inclusion in fulfilling the recommendations of the Economic Inclusion Advisory Council and measure the impact of the economic inclusion programs and initiatives within the City of Cincinnati."¹⁴⁸ Accordingly, the EIAAB is tasked with the following duties or functions:

- (i) Recommending policies to implement the City's economic inclusion programs and services;
- (ii) Recommending strategies to implement recommendations of the Economic Inclusion Advisory Council or its successor advisory group;
- (iii) Measuring the community impact of the City's and the Department of Economic Inclusion's economic inclusion programs and initiatives;
- (iv) Preparing and distributing to the community an annual report on the City's inclusion efforts; and
- (v) Ensuring that Minority- and Women-owned business inclusion programs and initiatives continue in the future.¹⁴⁹

Though the EIAAB is directed by ordinance to meet quarterly,¹⁵⁰ interviews indicated that the Board has often been out of compliance with this requirement. Moreover, the most recent Agenda linked on the

¹⁴² Id., at p. 2.

¹⁴³ See City of Cincinnati Ordinance 357-2016, p. 1.

¹⁴⁴ City of Cincinnati Ordinance 271-2016.

¹⁴⁵ City of Cincinnati Ordinance 357-2016, p. 1.

¹⁴⁶ See generally, Cincinnati Municipal Code, Title III, Section 324-49.

¹⁴⁷ Cincinnati Municipal Code, Title III, Section 324-49(b), (d); Bylaws of the EIAAB, Sections IV(a) and (c).

¹⁴⁸ See Cincinnati Municipal Code, Title III, Section 324-49(a)(1); Bylaws of the EIAAB, Section II.

¹⁴⁹ Cincinnati Municipal Code, Title III, Section 324-49(a)(2); Bylaws of the EIAAB, Section III.

¹⁵⁰ Cincinnati Municipal Code, Title III, Section 324-49(e); Bylaws of the EIAAB, Section VI.

EIAAB website is from September 2018, and the most recent handout/presentation linked is from December 2017.¹⁵¹

Interviews with EIAAB members indicated concerns that insufficient staffing and funding over the last several fiscal years have significantly reduced the effectiveness of the overall MWBE Program, adversely affecting community outreach, contract compliance, supportive services, and capacity-building. Specific barriers to inclusion/participation relayed by the MWBE community to EIAAB members reportedly included bonding requirements, insurance requirements, slow payment, and inadequate outreach, notification, and forecasting. Interviewees expressed that the City's SBE program was reasonably successful in increasing SBE inclusion, but that the transition or expansion to address MBE and WBE inclusion has not been similarly successful to date.

H. Budget and Staffing for the Department of Economic Inclusion (DEI)

The various responsibilities of DEI regarding MWBE and SBE inclusion are set forth above. Policy interviews indicated some concerns about the budget and staffing levels for the Department, however.

By ordinance there is an Economic Inclusion Advisory and Accountability Board (comprised of up to 25 members) tasked "to promote economic inclusion, serve as a public advocate for the Department of Economic Inclusion, assist the Department of Economic Inclusion in fulfilling the recommendations of the Economic Inclusion Advisory Council and measure the impact of the economic inclusion programs and initiatives within the City of Cincinnati."¹⁵² Members are appointed by the Mayor with the approval of the City Council and meet quarterly (as a general rule).¹⁵³

I. Conclusion

City of Cincinnati procurement is governed by comprehensive municipal ordinances, supporting procurement policies and procedures, and administrative regulations. At present, the City has implemented race- and gender-neutral policies and programs to try to meet its express objective of greater inclusion and has also established goals for MWBEs on certain contracts for Construction, Professional Services, Other Services, and supplies. At the close of the present Disparity Study, GSPC will provide specific findings regarding the procurement policies and practices at the City and will also make recommendations for achieving greater MWBE participation should the quantitative and qualitative evidence gathered and analyzed indicate disparity(ies) in these areas. These findings and recommendations will be included in an Executive Summary chapter accompanying the Final Disparity Study Report.

¹⁵¹<https://www.cincinnati-oh.gov/inclusion/economic-inclusion-advocacy-accountability-board/eiaab-meeting-agendas-presentations/>

¹⁵² Cincinnati Municipal Code, Title III, Section 324-49.

¹⁵³ Cincinnati Municipal Code, Title III, Sections 324-49(b) and (e).

V. QUANTITATIVE ANALYSIS

A. Introduction

The quantitative analysis of this Study measures and compares the Availability of firms in each race, ethnicity, and gender group within the City's geographical and product market areas to the Utilization of each race, ethnicity, and gender group, measured by the payments to these groups by the City.

The outcome of the comparison shows us whether there is a disparity between Availability and Utilization or Utilization is in Parity with Availability (i.e., the amount to be expected). Where there is disparity, a determination is made whether it is an Overutilization or an Underutilization. Further, the disparity is tested to see if it is statistically significant. Legal precedents have clearly established that the presence of such significant statistical disparities create an inference of discrimination adversely affecting the participation of the underutilized firms. Finally, the regression analysis contained in the Chapter V Private Sector Analysis tests for other explanations for the disparity to determine if it is likely that the disparity is caused by race, ethnicity, and gender status, or other factors. Where there is statistically significant Underutilization of MWBEs that is likely caused by race, ethnicity, and/or gender, GSPC determines as part of its findings whether there is a basis for an inference of discrimination and consideration by the City for the use of narrowly tailored race- and gender-conscious remedies.

Research Question: Statistical Analysis

Is there a disparity that is statistically significant between the percentage of available, qualified, and willing MWBE firms, in the Relevant Market, and the percentage of dollars spent with MWBE firms in that same Relevant Market during the Study Period?

B. Data Assessment and Requests

GSPC conducted several meetings with representatives who were familiar with the City's data. The objectives of the meetings were for GSPC to get a better understanding of how the City procurement data were kept and how best to request the data needed for the Study. Following the data assessment meetings, GSPC presented written requests for the data, detailing the type and fields of data needed to complete the quantitative analysis. The Data Assessment Report can be found in Appendix M.

All the data requested were in electronic format and no data had to be collected manually in hard-copies or PDF. The requested data were uploaded to GSPC where they were catalogued and stored in GSPC's cloud repository. The collected data were used to develop data files containing purchasing history for each major purchasing category, that is, Construction, A&E, Professional Services, Other Services, and Goods. The City provided subcontract Utilization data which could be linked to the prime contract with Contract and Purchase Order numbers. The subcontract data, however, were limited to spend with certified and non-certified firms performing work on those prime contracts that had SBE or MWBE goals monitored by DEL.

In addition, GSPC verified gender and ethnicity of certified vendors and completed necessary information about vendor address, work categories, and other related areas. Gender and ethnicity verification were based on official certification listings from a variety of certifying agencies. GSPC used vendor zip codes to identify the county where the businesses were located to determine whether a vendor was included in the

Relevant Market analysis. Where certain information, such as vendor physical addresses, were missing, GSPC obtained that information from Dun and Bradstreet databases or from an internet search.

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 four (4) tasks:

- Assigning and verifying ethnicity, race & gender of each firm;
- Researched NAICS codes and other sources to determine the kind of work the firm performs;
- Utilizing zip codes to determine the assignment of each firm’s location;
- Matching files electronically to pick up addresses, ethnicity/race/gender, and/or work category;

File cleanup was first done electronically by linking information provided by the City to certain indicators, like purchase order number, vendor name, or vendor number, or by cross-referencing information with other files to fill in missing fields.

1. Assignment of Race, Ethnicity and Gender

In identifying Minority-owned firms for purposes of the Study, GSPC counted only those firms that were certified by one of the following certifying agencies:

- City of Cincinnati - Historical List of Certified Firms;
- State of Ohio - MBE List;
- State of Ohio - WBE List; and
- State of Ohio - DOT DBE List.

In assigning race/ethnicity and gender, priority was given to firms’ race/ethnicity, so that all Minority-owned firms were categorized according to their race/ethnicity rather than by gender. For example, a Woman-owned Asian American firm was categorized as Asian American rather than as a Woman-owned business. Non-Minority Women-owned firms were categorized individually by their race and gender as WBEs. Firms certified as WBEs were presumed to be Non-Minority Woman-owned firms if no other race or ethnicity was indicated. Non-Minority male-owned firms, publicly owned corporations, and firms for which race, ethnicity, and gender could not be verified were categorized as Non-MWBE firms.

2. Assignment of Business Categories

To place firms into the proper business categories, GSPC initially used the City’s internal business classification but verified the results after assigning vendors into the Construction, A&E, Professional Services, Other Services, and Goods Industry Categories. Several data summaries were provided by GSPC for joint reviews with the City, which resulted in the reclassification of some vendors based on additional information provided by the City. In the final analysis, GSPC and the City’s project managers agreed on the classification and accuracy of vendors in each category. GSPC utilized various strategies to reach the final classification, including both internal coding of vendors in NIGP by Cincinnati and converting those into NAICS codes. This strategy was adopted since a large proportion of vendors did not have an NIGP code. For those for which there was no assigned NIGP codes, GSPC obtained NAICS codes from the Dun and

Bradstreet (commonly known as Hoovers data) database (D&B does not provide NIGP codes but does offer NAICS coded for each vendor). It is important to note that Hoovers data offers the largest publicly available database of business establishments in the U.S. In addition to providing information about the vendors, Hoovers provides some essential information about the business name, work category, business address, phone number, NAICS code, business type, and other relevant descriptive information. Hoovers data is continuously updated and verified thus providing accurate and updated information about vendors.

3. Master Vendor File

GSPC developed a master Availability source for this report called the Master Vendor File. The purpose of the Master Vendor File was to collect, in one data file, a listing of all firms that provide goods and services in the Industry Categories utilized by the City. It includes internal lists from the City as well as outside governmental lists. The Master Vendor File contains the lists of firms from the following data sources:

- Cincinnati Active Vendors list;
- City of Cincinnati Historical List of Certified Firms;
- Contracts and Purchase Orders;
- City of Cincinnati's BSBE Certified Companies;
- MSD-SBE Firms Subcontract Data from the Metropolitan Sewer District of Greater Cincinnati;
- Ohio Department of Administrative Services MBE List;
- Ohio Department of Administrative Services WBE List;
- Ohio DOT DBE List;
- Ohio DOT Prequalified List;
- City of Cincinnati Payments; and
- Subcontract Payments.

D. Relevant Market Analysis

The commonly held idea that the Relevant Market area should encompass at least 75% to 85% of the "qualified" vendors that serve a particular sector has its origins in antitrust lawsuits.¹⁵⁴ In line with antitrust precepts, United States Supreme Court, Justice Sandra Day O'Connor in *Croson*, specifically criticized the City of Richmond,

Virginia, for making MBEs all over the country eligible to participate in its set-aside programs.¹⁵⁵ The Court reasoned that a mere statistical disparity between the overall Minority population in Richmond, Virginia, which was 50% African American, and the award of prime contracts to Minority-owned firms, 0.67% of which were African 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 MBEs in the marketplace (or *Relevant Market area*) who were qualified to perform

Relevant Market Area is the geographic location where the City spends at least 75% of its dollars. The Utilization and Availability analyses are conducted only using firms located within the Relevant Market Area

¹⁵⁴ 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)

¹⁵⁵ *Croson*, 488 U.S. 509, 709 S. Ct. 706 (1989)

contracting work (including prime and Subcontractors) and the percentage of total City contracting dollars awarded to Minority firms.

The City’s Relevant Market area has been determined for each of the Industry Categories:

- Construction;
- A&E;
- Professional Services;
- Other Services; and
- Goods.

For each purchasing category GSPC determined the "Relevant Market " by the area where at least 75% of the City’s prime dollars were paid during the Study Period. In doing that, GSPC converted vendors’ Postal Zip Codes into counties and states and then correlated and analyzed that data to determine the geographic areas in which that spend was concentrated. As a common methodology, identification of the Relevant Market area starts with the main county (Hamilton County in this Study) and radiates out to include other neighboring counties until the aggregated total of the spend reaches at least 75% in each Industry Category. In this Study, the Relevant Market area was determined to be Hamilton County, Ohio, since most Industry Categories reached and/or exceeded the required 75% requirement without radiating out further. The results of Relevant Market area analyses are presented in Tables 6 through 10.

Table 6 shows that over 81.41% of all Construction-related procurements during the Study Period were paid to prime vendors located within Hamilton County. Only 11.25% of the total Construction expenditure was done with vendors in other counties within the State of Ohio, followed by 7.34% with vendors located outside the State of Ohio (See Table A-1 in Appendix A for the list of all counties and the associated prime spend amount with vendors located in each).

Table 6: Relevant Market - Prime Construction¹⁵⁶
Procurement by Market Area Counties and State
(Using Payment Dollars, CY 2016-2020)
City of Cincinnati Disparity Study

Market Area	Dollar	Percent	Cumulative Dollar	Cumulative Percent
Hamilton County, Ohio	\$ 367,436,612	81.41%	\$ 367,436,612	81.41%
Other Counties in Ohio	\$ 50,771,816	11.25%	\$ 418,208,429	92.66%
Other States in US	\$ 33,149,491	7.34%	\$ 451,357,920	100.00%
Total	\$ 451,357,920	100.00%		

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¹⁵⁶ 0.01 differences within the tables in the Statistical Chapter are due to automatic rounding.

Table 7 shows the distribution of Prime Contractor payment amounts in the A&E category. As portrayed in the table, nearly 81% of procurement in that category was conducted through vendors within Hamilton County. The analysis of data further revealed that 5.61% of A&E contract spend was with vendors in other Ohio Counties while only 13.52% of the total expenditure was with vendors outside of the State of Ohio. (See Table A-2 in Appendix A for the list of all counties and the associated prime spend amount with vendors located in each).

**Table 7: Relevant Market - Prime A&E
Procurement by Market Area Counties and State
(Using Payment Dollars, CY 2016-2020)
City of Cincinnati Disparity Study**

Market Area	Dollar	Percent	Cumulative Dollar	Cumulative Percent
Hamilton County, Ohio	\$ 15,587,927	80.87%	\$ 15,587,927	80.87%
Other Counties in Ohio	\$ 1,081,540	5.61%	\$ 16,669,467	86.48%
Other States in US	\$ 2,605,195	13.52%	\$ 19,274,662	100.00%
Total	\$ 19,274,662	100.00%		

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Like both Construction and A&E, the City’s spend within the Professional Services category met and exceeded the 75% legally required threshold in Hamilton County. As depicted in Table 8, over 84% of all Professional Services spend was with vendors located within Hamilton County, Ohio. The remaining 15.69% was with vendors in other counties in the State of Ohio or outside the State (3.96 percent and 11.73 percent, respectively). (See Table A-3 in Appendix A for the list of all counties and the associated amount of prime spend with vendors located in each).

**Table 8: Relevant Market - Prime Professional Services
Procurement by Market Area Counties and State
(Using Payment Dollars, CY 2016-2020)
City of Cincinnati Disparity Study**

Market Area	Dollar	Percent	Cumulative Dollar	Cumulative Percent
Hamilton County, Ohio	\$ 58,691,403	84.31%	\$ 58,691,403	84.31%
Other Counties in Ohio	\$ 2,760,156	3.96%	\$ 61,451,559	88.27%
Other States in US	\$ 8,164,628	11.73%	\$ 69,616,187	100.00%
Total	\$ 69,616,187	100.00%		

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In reference to Other Services and as shown in Table 9, close to 82% of the City’s spend in this category was with businesses located within Hamilton County. Only 4.94% of the total amount was spent with vendors in other counties within the State, and 13.25% was spent with vendors in states other than Ohio. Procurement from Canada and Online accounted for 0.02% of the total amount. (See Table A-4 in Appendix A for the list of all counties and the associated spend amount with vendors located in each).

**Table 9: Relevant Market - Prime Other Services
Procurement by Market Area Counties and State
(Using Payment Dollars, CY 2016-2020)
City of Cincinnati Disparity Study**

Market Area	Dollar	Percent	Cumulative Dollar	Cumulative Percent
Hamilton County, Ohio	\$ 212,497,005	81.79%	\$ 212,497,005	81.79%
Other Counties in Ohio	\$ 12,843,473	4.94%	\$ 225,340,478	86.73%
Other States in US	\$ 34,427,622	13.25%	\$ 259,768,100	99.98%
Canada	\$ 31,765	0.01%	\$ 259,799,865	99.99%
Internet	\$ 18,441	0.01%	\$ 259,818,306	100.00%
Total	\$ 259,818,306	100.00%		

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The distribution of prime payments in the Goods category is depicted in Table 10. The analysis of procurement data revealed that nearly 60% of total spend in Goods was with vendors located within Hamilton County, 21.12% was with vendors in other Ohio counties, and 18.88% was with vendors in states other than Ohio. A small portion of the purchasing was conducted online or procured from Canadian vendors. (See Table A-5 in Appendix A for the list of all counties and the associated spend amount with vendors located in each).

**Table 10: Relevant Market -Prime Goods
Procurement by Market Area Counties and State
(Using Payment Dollars, CY 2016-2020)
City of Cincinnati Disparity Study**

Market Area	Dollar	Percent	Cumulative Dollar	Cumulative Percent
Hamilton County, Ohio	\$ 170,401,416	59.90%	\$ 170,401,416	59.90%
Other Counties in Ohio	\$ 60,076,707	21.12%	\$ 230,478,123	81.01%
Other States in US	\$ 53,718,910	18.88%	\$ 284,197,033	99.89%
Canada	\$ 270,635	0.12%	\$ 284,467,668	100.01%
Internet	\$ 30,191	0.01%	\$ 284,497,859	100.02%
Total	\$ 284,497,859	100.00%		

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Note: GSPC uses full decimal numbers, so automatic rounding may cause differences within the tables.

E. Availability Analysis

1. Methodology

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

Availability Estimate is the determination of the percentage of MWBEs that are “ready, willing, and able” to provide Goods or services to the City of Cincinnati.

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

An MWBE Availability Estimate is expressed as a percentage of total Availability, computed by dividing the number of firms in each MWBE group in each Industry Category by the total number of businesses in the pool of firms for that Industry Category. Once these Availability estimates were calculated, GSPC compared them to the percentage of firms utilized in the respective business categories to generate the disparity indices, which will be discussed later in this analysis.

2. Measurement Basis for Availability

There are 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 Market area and in the relevant Industry Category. A firm is considered to be demonstrating interest if the owner has taken steps, such as registering, bidding, certification, prequalification, etc. In determining those firms to be included in the Availability pool, GSPC included the entire “Master Vendor File”.

3. Capacity

The ability or capacity to perform the work is tested in the Regression Analysis conducted in Chapter VI – Private Sector Analysis herein. The Regression Analysis shows whether race, ethnicity, and gender factors are impediments overall to the success of MWBEs in obtaining awards in the marketplace and whether, but

for those factors, firms would have the capacity to provide goods and services on a level higher than what is presently being utilized.

4. Availability

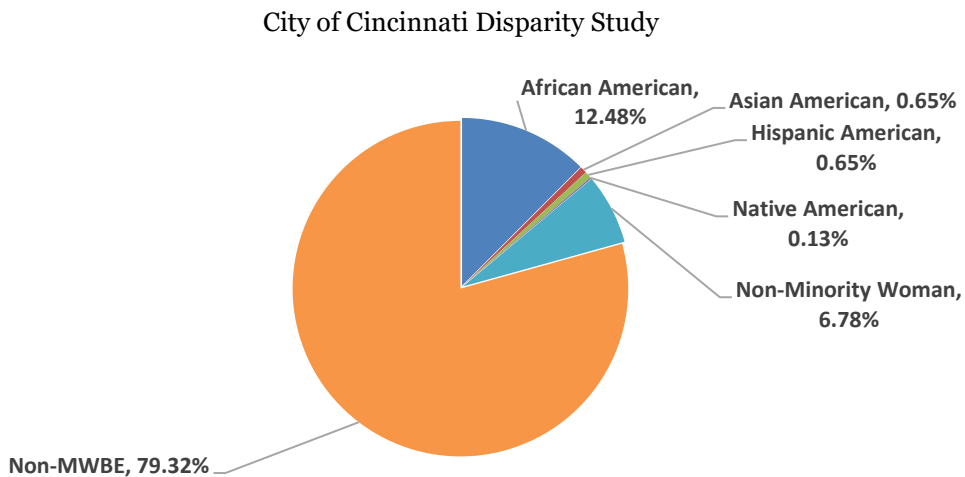
The Availability estimates for the Study are separated into the five (5) Industry Categories. Figures 1 through 5 below show the number of available firms by race/gender/ethnicity as compared with the total number of available firms. See Tables B-1 through B-5 in Appendix B for detailed Availability information including the breakdown by Industry Category and the race, ethnicity, or gender of the firm owners.

Note: GSPC uses full decimal numbers, so automatic rounding may cause differences within the tables.

a. Construction

The Availability analyzed from the Master Vendor File includes all unique vendors in each work category.¹⁵⁷ The City’s Relevant Market area Availability for Construction is shown in Figure 1. As depicted in the figure, Non-MWBE-owned firms were 79.32% of all available Construction firms followed by African American-owned firms at 12.48%. Non-Minority Woman-owned firms represented 6.78% of available Construction firms. Hispanic American-owned firms and Asian American-owned firms each made up just 0.65% of the total available Construction firms, while Native American-owned firms comprised just 0.13% of total Construction Availability. A total of 769 vendors were available in the Construction category. See Table B-1 in Appendix B for the actual number of businesses in each race, ethnicity, and gender group.

Figure 1: Availability estimates – Construction in the Relevant Market Hamilton County, Ohio



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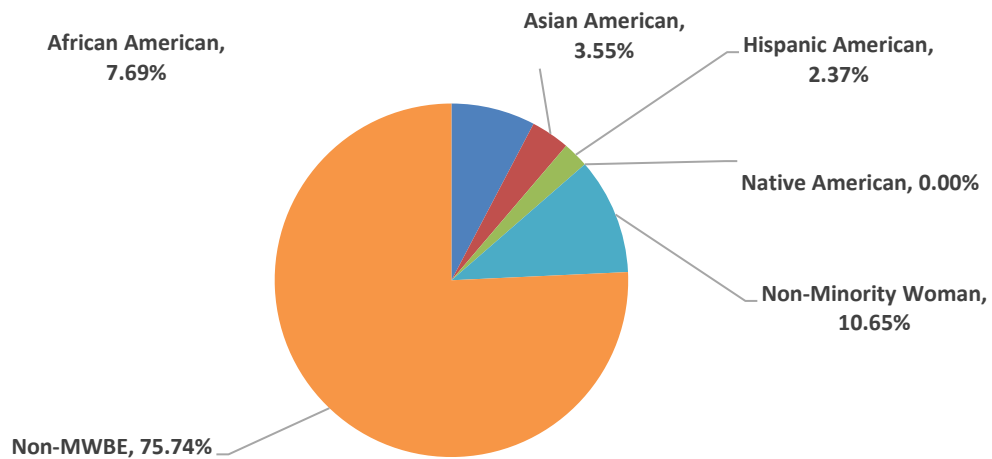
¹⁵⁷ Firms can count in more than one business category if they perform services in each category but can only be counted once in each business category.

b. A&E

Availability estimates of A&E firms disaggregated by race, ethnicity, and gender in the Relevant Geographic Area is presented in Figure 2. GSPC recorded 168 vendors in that Industry Category. As the figure reflects, 75.74% of the vendors were Non-MWBEs while 7.69% of business were owned by African Americans. Non-Minority Women-owned businesses represented 10.65% of total firms in that category while Asian American-owned businesses were 3.55% of the total available firms. GSPC did not record any Native American-owned firms in this category within the Relevant Market Area, and the proportion of Hispanic American-owned businesses was only 2.37%. See Table B-2 in Appendix B for the actual number of businesses in each race, ethnicity, and gender group.

**Figure 2: Availability estimates – A & E
in the Relevant Market
Hamilton County, Ohio**

City of Cincinnati Disparity Study



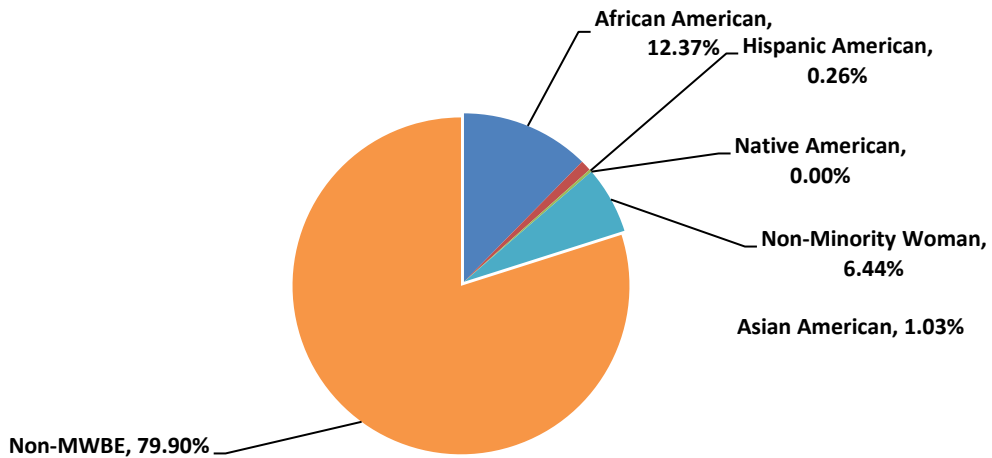
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c. Professional Services

In reference to Professional Services, GSPC recorded 388 available vendors in the Relevant Market. As depicted in the Figure 3, 79.90% of firm owners were Non-MWBEs while 12.37% were African Americans. Non-Minority Women made up 6.44% of the firms' ownership and Asian American owners represented 1.03%. Hispanic American-owned businesses accounted for 0.26% of the firms, and there were no Native American-owned businesses recorded in that Industry Category. Please see Table B-3 in Appendix B for the actual number of businesses in each race, ethnicity, and gender group.

**Figure 3: Availability estimates – Professional Services
in the Relevant Market
Hamilton County, Ohio**

City of Cincinnati Disparity Study



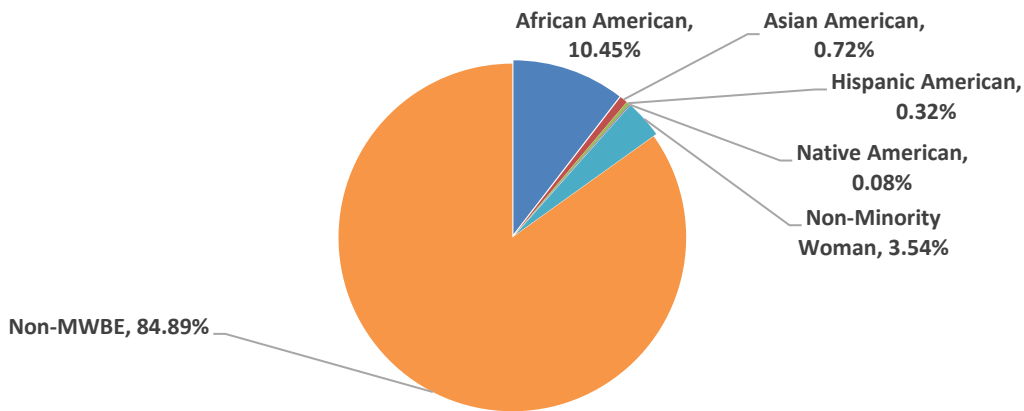
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d. Other Services

Availability estimates of Other Services firms in the Relevant Market area are presented in Figure 4. There were 1,244 available firms in that category as detailed in Appendix B, Table B-4. As depicted in Figure 4, 84.89% of the firms were owned by Non-MWBEs and 10.45% were owned by African Americans. The Non-Minority Women-owned businesses accounted for 3.54% of the total available firms while Hispanic American-owned firms made up 0.32% of the total. Asian American-owned firms and Native American-owned firms constituted 0.72% and 0.08%, respectively.

**Figure 4: Availability estimates –Other Services
in the Relevant Market
Hamilton County, Ohio**

City of Cincinnati Disparity Study



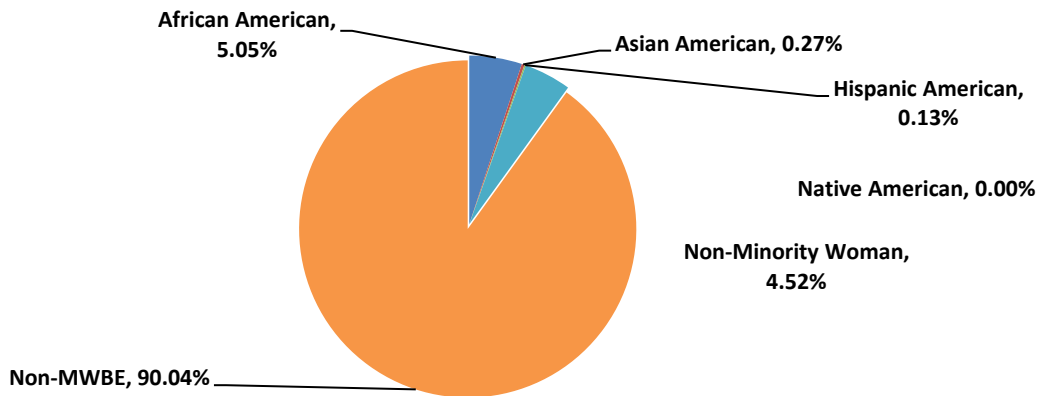
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e. Goods

Availability estimates of firms in the Goods category is presented in Figure 5. GSPC determined there was a total of 753 available vendors in that Industry Category. As shown in Figure 5, 90.04% of firms were owned by Non-MWBEs while 5.05% were owned by African Americans. Non-Minority Women-owned firms accounted for 4.52% of the total, Asian American-owned firms reflected a 0.27% share, and Hispanic American-owned firms were 0.13% of the available businesses. There were no Native American-owned businesses in the Goods category. Table B-5 in Appendix B provides detailed information on the actual number of businesses in each race, ethnicity, and gender group.

**Figure 5: Availability estimates – Goods
in the Relevant Market
Hamilton County, Ohio**

City of Cincinnati Disparity Study



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F. Utilization Analysis

1. Prime Contractor Utilization

The relevant prime payment history for the City of Cincinnati has been recorded based upon the paid amounts captured in the City’s financial system and provided by the City. In the Prime Contractor Utilization tables below, the dollars and percentage of dollars paid in each of the five (5) Industry Categories have been broken out by race, ethnicity, and gender for each year of the Study Period. The total of each race, ethnicity, and gender group represented in the MWBE category, when added to the Non-MWBE category, equals the Total Column.

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

Note: The totals for each year represent the unique number of firms in that year. The Total Unique Number of Businesses represent the unique pool for firms used over the entire Study Period.

As shown in Table 12, only 2.67% of City spend in Construction was with MWBEs. Table 11 shows that a very limited number of unique MWBE vendors were utilized in the Construction category as compared to the number of unique Non-MWBE vendors utilized (22 and 112, respectively). Based on the information in Tables 11 and 12, the average amount spent with African American-owned Prime Contractors in the Construction category was \$586,100, compared to an average of \$3,193,036 spent with Non-MWBE Prime Contractors. The average prime expenditure with Non-Minority Women-owned firms was only \$329,633 per vendor.

**Table 11: Number of Businesses by Business Ownership and Fiscal Year
Prime Data, Construction
(Using Vendor Payments, CY 2016-2020)
City of Cincinnati Disparity Study**

Calendar Year	African American		Asian American		Hispanic American		Native American		Total MBE		Non-Minority Woman		Total MWBE		Non-MWBE		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
2016	6	9.09%	0	0.00%	0	0.00%	0	0.00%	6	9.09%	7	10.61%	13	19.70%	53	80.30%	66	20.69%
2017	6	9.38%	0	0.00%	0	0.00%	0	0.00%	6	9.38%	7	10.94%	13	20.31%	51	79.69%	64	20.06%
2018	7	10.61%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	5	7.58%	5	7.58%	61	92.42%	66	20.69%
2019	5	7.69%	0	0.00%	0	0.00%	0	0.00%	5	7.69%	6	9.23%	11	16.92%	54	83.08%	65	20.38%
2020	4	6.90%	0	0.00%	0	0.00%	0	0.00%	4	6.90%	4	6.90%	8	13.79%	50	86.21%	58	18.18%
Total 2016-2020	28	8.78%	0	0.00%	0	0.00%	0	0.00%	21	6.58%	29	9.09%	50	15.67%	269	84.33%	319	100.00%
Total Unique Number of Businesses	10	7.46%	0	0.00%	0	0.00%	0	0.00%	10	7.46%	12	8.96%	22	16.42%	112	83.58%	134	100.00%

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**Table 12: Utilization of Prime Analysis in Relevant Market area
Prime Data, Construction
(Using Payment Dollars, CY 2016-2020)
City of Cincinnati Disparity Study**

Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
African American	\$ 730,403	\$ 1,536,953	\$ 1,688,180	\$ 1,658,494	\$ 246,973	\$ 5,861,003
Asian American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hispanic American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL MINORITY	\$ 730,403	\$ 1,536,953	\$ 1,688,180	\$ 1,658,494	\$ 246,973	\$ 5,861,003
Non-Minority Woman	\$ 362,487	\$ 811,594	\$ 737,563	\$ 1,067,948	\$ 976,002	\$ 3,955,594
TOTAL MWBE	\$ 1,092,890	\$ 2,348,547	\$ 2,425,743	\$ 2,726,442	\$ 1,222,974	\$ 9,816,597
NON-MWBE	\$ 61,288,588	\$ 72,439,310	\$ 82,584,040	\$ 66,045,738	\$ 75,262,339	\$ 357,620,015
TOTAL FIRMS	\$ 62,381,478	\$ 74,787,858	\$ 85,009,783	\$ 68,772,180	\$ 76,485,313	\$ 367,436,612
Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
African American	1.17%	2.06%	1.99%	2.41%	0.32%	1.60%
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	1.17%	2.06%	1.99%	2.41%	0.32%	1.60%
Non-Minority Woman	0.58%	1.09%	0.87%	1.55%	1.28%	1.08%
TOTAL MWBE	1.75%	3.14%	2.85%	3.96%	1.60%	2.67%
NON-MWBE	98.25%	96.86%	97.15%	96.04%	98.40%	97.33%
TOTAL FIRMS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

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Table 13 depicts the number of businesses utilized in the A&E category by the City during the Study Period. Overall, 56 unique vendors were utilized in the A&E category, of which only 7 were MWBEs (12.50%). On average, the Non-MWBEs earned \$272,853 per vendor during the Study Period, compared to \$36,744 and \$66,774 for African American-owned firms and Non-Minority Women-owned firms, respectively (please consult Table 14). On the other hand, the average earnings for Asian American businesses in A&E was as high as \$898,767 per vendor. Altogether, the MWBE businesses received 14.23% of the procurement expenditure in A&E as compared to 85.77% for Non-MWBEs.

**Table 13: Number of Businesses by Business Ownership and Fiscal Year
Prime Data, A&E
(Using Vendor Payments, CY 2016-2020)
City of Cincinnati Disparity Study**

Calendar Year	African American		Asian American		Hispanic American		Native American		Total MBE		Non-Minority Woman		Total MWBE		Non-MWBE		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
2016	2	5.41%	2	5.41%	0	0.00%	0	0.00%	4	10.81%	2	5.41%	6	16.22%	31	83.78%	37	19.68%
2017	2	5.13%	2	5.13%	0	0.00%	0	0.00%	4	10.26%	2	5.13%	6	15.38%	33	84.62%	39	20.74%
2018	0	0.00%	2	5.56%	0	0.00%	0	0.00%	0	0.00%	2	5.56%	2	5.56%	34	94.44%	36	19.15%
2019	0	0.00%	2	5.41%	0	0.00%	0	0.00%	2	5.41%	2	5.41%	4	10.81%	33	89.19%	37	19.68%
2020	1	2.56%	2	5.13%	1	2.56%	0	0.00%	4	10.26%	1	2.56%	5	12.82%	34	87.18%	39	20.74%
Total 2016-2020	5	2.66%	10	5.32%	1	0.53%	0	0.00%	14	7.45%	9	4.79%	23	12.23%	165	87.77%	188	100.00%
Total Unique Number of Businesses	2	3.57%	2	3.57%	1	1.79%	0	0.00%	5	8.93%	2	3.57%	7	12.50%	49	87.50%	56	100.00%

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**Table 14: Utilization of Prime Analysis in Relevant Market area
Prime Data, A&E
(Using Payment Dollars, CY 2016-2020)
City of Cincinnati Disparity Study**

Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
African American	\$ 61,900	\$ 5,438		\$ -	\$ 6,150	\$ 73,488
Asian American	\$ 206,449	\$ 499,129	\$ 319,399	\$ 352,970	\$ 419,588	\$ 1,797,534
Hispanic American	\$ -	\$ -	\$ -	\$ -	\$ 213,581	\$ 213,581
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL MINORITY	\$ 268,349	\$ 504,567	\$ 319,399	\$ 352,970	\$ 639,319	\$ 2,084,603
Non-Minority Woman	\$ 25,269	\$ 36,389	\$ 51,250	\$ 15,713	\$ 4,925	\$ 133,547
TOTAL MWBE	\$ 293,618	\$ 540,956	\$ 370,649	\$ 368,683	\$ 644,244	\$ 2,218,150
NON-MWBE	\$ 2,316,233	\$ 3,792,526	\$ 2,281,553	\$ 1,889,755	\$ 3,089,712	\$ 13,369,777
TOTAL FIRMS	\$ 2,609,851	\$ 4,333,481	\$ 2,652,202	\$ 2,258,437	\$ 3,733,956	\$ 15,587,927
Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
African American	2.37%	0.13%	0.00%	0.00%	0.16%	0.47%
Asian American	7.91%	11.52%	12.04%	15.63%	11.24%	11.53%
Hispanic American	0.00%	0.00%	0.00%	0.00%	5.72%	1.37%
Native American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
TOTAL MINORITY	10.28%	11.64%	12.04%	15.63%	17.12%	13.37%
Non-Minority Woman	0.97%	0.84%	1.93%	0.70%	0.13%	0.86%
TOTAL MWBE	11.25%	12.48%	13.98%	16.32%	17.25%	14.23%
NON-MWBE	88.75%	87.52%	86.02%	83.68%	82.75%	85.77%
TOTAL FIRMS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

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As shown in Table 16, only 11.42% of City prime spend in the category of Professional Services was with MWBEs. Of the almost \$60 million spent with Prime Contractors during the Study Period, only 9.55% was with African American-owned businesses and 1.87% was with Non-Minority Women-owned firms. Table 15 depicts a very limited number of unique MWBE vendors utilized in the Professional Services Industry Category (13 firms) as compared to the utilization of unique Non-MWBE vendors (138).

**Table 15: Number of Businesses by Business Ownership and Fiscal Year
Prime Data, Professional Services
(Using Vendor Payments, CY 2016-2020)
City of Cincinnati Disparity Study**

Calendar Year	African American		Asian American		Hispanic American		Native American		Total MBE		Non-Minority Woman		Total MWBE		Non-MWBE		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
2016	6	7.41%	0	0.00%	0	0.00%	0	0.00%	6	7.41%	4	4.94%	10	12.35%	71	87.65%	81	22.13%
2017	6	7.69%	0	0.00%	0	0.00%	0	0.00%	6	7.69%	3	3.85%	9	11.54%	69	88.46%	78	21.31%
2018	4	5.97%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	3	4.48%	3	4.48%	64	95.52%	67	18.31%
2019	5	6.94%	0	0.00%	0	0.00%	0	0.00%	5	6.94%	2	2.78%	7	9.72%	65	90.28%	72	19.67%
2020	5	7.35%	0	0.00%	0	0.00%	0	0.00%	5	7.35%	3	4.41%	8	11.76%	60	88.24%	68	18.58%
Total 2016-2020	26	7.10%	0	0.00%	0	0.00%	0	0.00%	22	6.01%	15	4.10%	37	10.11%	329	89.89%	366	100.00%
Total Unique Number of Businesses	7	4.64%	0	0.00%	0	0.00%	0	0.00%	7	4.64%	6	3.97%	13	8.61%	138	91.39%	151	100.00%

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**Table 16: Utilization of Prime Analysis in Relevant Market area
Prime Data, Professional Services
(Using Payment Dollars, CY 2016-2020)
City of Cincinnati Disparity Study**

Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
African American	\$ 345,434	\$ 2,668,568	\$ 1,382,651	\$ 1,013,099	\$ 195,229	\$ 5,604,981
Asian American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hispanic American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL MINORITY	\$ 345,434	\$ 2,668,568	\$ 1,382,651	\$ 1,013,099	\$ 195,229	\$ 5,604,981
Non-Minority Woman	\$ 606,794	\$ 328,010	\$ 48,489	\$ 54,199	\$ 60,274	\$ 1,097,765
TOTAL MWBE	\$ 952,228	\$ 2,996,578	\$ 1,431,139	\$ 1,067,298	\$ 255,503	\$ 6,702,747
NON-MWBE	\$ 8,878,883	\$ 11,111,848	\$ 11,211,436	\$ 12,979,572	\$ 7,806,917	\$ 51,988,656
TOTAL FIRMS	\$ 9,831,112	\$ 14,108,427	\$ 12,642,575	\$ 14,046,870	\$ 8,062,420	\$ 58,691,403
Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
African American	3.51%	18.91%	10.94%	7.21%	2.42%	9.55%
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	3.51%	18.91%	10.94%	7.21%	2.42%	9.55%
Non-Minority Woman	6.17%	2.32%	0.38%	0.39%	0.75%	1.87%
TOTAL MWBE	9.69%	21.24%	11.32%	7.60%	3.17%	11.42%
NON-MWBE	90.31%	78.76%	88.68%	92.40%	96.83%	88.58%
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 spent for Other Services are presented in Tables 17 and 18. The number of unique MWBEs utilized in that Industry Category (29) was only 7.51% of total number of 386 unique businesses utilized for Other Services. With respect to City prime expenditures, and as reflected in Table 18, only 3.01% of the total procurement was conducted with African American-owned businesses and 2.73% with Non-Minority Women-owned businesses during the Study Period.

**Table 17: Number of Businesses by Business Ownership and Fiscal Year
Prime Data, Other Services
(Using Vendor Payments, CY 2016-2020)
City of Cincinnati Disparity Study**

Calendar Year	African American		Asian American		Hispanic American		Native American		Total MBE		Non-Minority Woman		Total MWBE		Non-MWBE		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
2016	11	5.34%	1	0.49%	0	0.00%	0	0.00%	12	5.83%	8	3.88%	20	9.71%	186	90.29%	206	19.81%
2017	12	5.38%	0	0.00%	0	0.00%	0	0.00%	12	5.38%	10	4.48%	22	9.87%	201	90.13%	223	21.44%
2018	14	7.29%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	7	3.65%	7	3.65%	185	96.35%	192	18.46%
2019	14	6.25%	0	0.00%	0	0.00%	0	0.00%	14	6.25%	7	3.13%	21	9.38%	203	90.63%	224	21.54%
2020	11	5.64%	0	0.00%	0	0.00%	0	0.00%	11	5.64%	7	3.59%	18	9.23%	177	90.77%	195	18.75%
Total 2016-2020	62	5.96%	1	0.10%	0	0.00%	0	0.00%	49	4.71%	39	3.75%	88	8.46%	952	91.54%	1040	100.00%
Total Unique Number of Businesses	18	4.66%	1	0.26%	0	0.00%	0	0.00%	19	4.92%	10	2.59%	29	7.51%	357	92.49%	386	100.00%

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**Table 18: Utilization of Prime Analysis in Relevant Market area
Prime Data, Other Services
(Using Payment Dollars, CY 2016-2020)
City of Cincinnati Disparity Study**

Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
African American	\$ 782,370	\$ 1,532,642	\$ 1,259,464	\$ 1,496,175	\$ 1,330,992	\$ 6,401,643
Asian American	\$ 3,110	\$ -	\$ -	\$ -	\$ -	\$ 3,110
Hispanic American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL MINORITY	\$ 785,480	\$ 1,532,642	\$ 1,259,464	\$ 1,496,175	\$ 1,330,992	\$ 6,404,753
Non-Minority Woman	\$ 2,259,437	\$ 924,822	\$ 868,791	\$ 786,642	\$ 962,910	\$ 5,802,602
TOTAL MWBE	\$ 3,044,917	\$ 2,457,464	\$ 2,128,255	\$ 2,282,817	\$ 2,293,902	\$ 12,207,355
NON-MWBE	\$ 42,629,907	\$ 38,270,148	\$ 37,156,331	\$ 41,225,531	\$ 41,007,733	\$ 200,289,650
TOTAL FIRMS	\$ 45,674,825	\$ 40,727,612	\$ 39,284,586	\$ 3,508,348	\$ 43,301,635	\$ 212,497,005
Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
African American	1.71%	3.76%	3.21%	3.44%	3.07%	3.01%
Asian American	0.01%	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	1.72%	3.76%	3.21%	3.44%	3.07%	3.01%
Non-Minority Woman	4.95%	2.27%	2.21%	1.81%	2.22%	2.73%
TOTAL MWBE	6.67%	6.03%	5.42%	5.25%	5.30%	5.74%
NON-MWBE	93.33%	93.97%	94.58%	94.75%	94.70%	94.26%
TOTAL FIRMS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

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Similar observations were made with respect to businesses in the Goods category. As depicted in Table 19, only 13 unique African American-owned businesses (or 4.47%) were utilized for the procurement of Goods during the Study Period as compared to 266 unique Non-MWBE businesses. Only 11 unique Non-Minority Women-owned businesses (3.78% of total businesses) received City prime payments for Goods during the Study. As summarized in Table 20, African American businesses received a little over \$8.33 million (4.89% of the total City prime spend) compared with over \$160 million (94.29%) spent with Non-MWBEs during the same time frame.

**Table 19: Number of Businesses by Business Ownership and Fiscal Year
Prime Data, Goods
(Using Vendor Payments, CY 2016-2020)
City of Cincinnati Disparity Study**

Calendar Year	African American		Asian American		Hispanic American		Native American		Total MBE		Non-Minority Woman		Total MWBE		Non-MWBE		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
2016	10	5.85%	0	0.00%	0	0.00%	0	0.00%	10	5.85%	7	4.09%	17	9.94%	154	90.06%	171	21.27%
2017	6	3.90%	0	0.00%	0	0.00%	0	0.00%	6	3.90%	5	3.25%	11	7.14%	143	92.86%	154	19.15%
2018	8	4.97%	0	0.00%	0	0.00%	0	0.00%	8	4.97%	6	3.73%	14	8.70%	147	91.30%	161	20.02%
2019	7	3.76%	0	0.00%	1	0.54%	0	0.00%	8	4.30%	8	4.30%	16	8.60%	170	91.40%	186	23.13%
2020	7	5.30%	0	0.00%	0	0.00%	0	0.00%	7	5.30%	3	2.27%	10	7.58%	122	92.42%	132	16.42%
Total 2016-2020	38	4.73%	0	0.00%	1	0.12%	0	0.00%	39	4.85%	29	3.61%	68	8.46%	736	91.54%	804	100.00%
Total Unique Number of Businesses	13	4.47%	0	0.00%	1	0.34%	0	0.00%	14	4.81%	11	3.78%	25	8.59%	266	91.41%	291	100.00%

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**Table 20: Utilization of Prime Analysis in Relevant Market area
Prime Data, Goods
(Using Payment Dollars, CY 2016-2020)
City of Cincinnati Disparity Study**

Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
African American	\$ 1,212,432	\$ 1,652,626	\$ 1,796,172	\$ 1,996,421	\$ 1,675,059	\$ 8,332,710
Asian American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hispanic American	\$ -	\$ -	\$ -	\$ 1,732	\$ -	\$ 1,732
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL MINORITY	\$ 1,212,432	\$ 1,652,626	\$ 1,796,172	\$ 1,998,153	\$ 1,675,059	\$ 8,334,442
Non-Minority Woman	\$ 262,837	\$ 293,396	\$ 268,033	\$ 389,402	\$ 186,024	\$ 1,399,692
TOTAL MWBE	\$ 1,475,269	\$ 1,946,022	\$ 2,064,205	\$ 2,387,555	\$ 1,861,083	\$ 9,734,134
NON-MWBE	\$ 34,527,477	\$ 34,905,025	\$ 30,415,703	\$ 31,422,305	\$ 29,396,771	\$ 160,667,282
TOTAL FIRMS	\$ 36,002,746	\$ 36,851,047	\$ 32,479,909	\$ 33,809,861	\$ 31,257,854	\$ 170,401,416
Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
African American	3.37%	4.48%	0.00%	5.90%	5.36%	4.89%
Asian American	0.00%	0.00%	#REF!	0.00%	0.00%	0.00%
Hispanic American	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%
Native American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
TOTAL MINORITY	3.37%	4.48%	5.53%	5.91%	5.36%	4.89%
Non-Minority Woman	0.73%	0.80%	0.83%	1.15%	0.60%	0.82%
TOTAL MWBE	4.10%	5.28%	6.36%	7.06%	5.95%	5.71%
NON-MWBE	95.90%	94.72%	93.64%	92.94%	94.05%	94.29%
TOTAL FIRMS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

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2. Total Utilization (Prime and Subcontractor Payments)

The City of Cincinnati tracks subcontracting dollars allocated to MWBEs but does not completely track Non-MWBE Subcontractors. GSPC conducted a Total Utilization analysis by combining prime contract dollars with subcontract dollars, after subtracting subcontract dollars from prime contract dollars on a contract-by-contract basis.¹⁵⁸ This analysis was only conducted for Construction and A&E which had measurable levels of

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

¹⁵⁸ So, for example, if there was one Asian American-owned prime contract at \$1,000, Prime Contractor Utilization counts the whole \$1000 toward Asian American-owned firms. In Total Utilization, if the Prime Contractor subcontracts

subcontracting reported. There was no measurable subcontracting amount for Professional Services, Other Services, or Goods categories.

Table 21 shows the amount of Prime Contractor and MWBE Subcontractor dollars combined for Construction. Altogether, \$55,245,285 was added as Construction Subcontracting amount (MWBE Subcontractors only) of which \$31,263,325 was earned by African American Subcontractors followed by \$15,244,161 for Non-Minority Women. The subcontract earning for Asian American businesses was \$8,737,800 during the Study Period as there were no prime contracting dollars spent with Asian American owned Construction firms.

**Table 21: Total Utilization of Construction
(Prime + Subcontract) Analysis in Relevant Market area
(Using Payment Dollars, CY 2016-2020)
City of Cincinnati Disparity Study**

Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
African American	\$ 611,701	\$ 9,067,602	\$ 11,547,197	\$ 10,705,951	\$ 4,410,325	\$ 36,342,775
Asian American	\$ 1,670,012	\$ 867,719	\$ 1,586,329	\$ 3,432,588	\$ 1,181,152	\$ 8,737,800
Hispanic American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL MINORITY	\$ 2,281,713	\$ 9,935,320	\$ 13,133,526	\$ 14,138,539	\$ 5,591,476	\$ 45,080,575
Non-Minority Woman	\$ 1,378,486	\$ 2,732,006	\$ 6,150,040	\$ 5,442,482	\$ 3,487,241	\$ 19,190,255
TOTAL MWBE	\$ 3,660,199	\$ 12,667,326	\$ 19,283,566	\$ 19,581,021	\$ 9,078,718	\$ 64,270,830
NON-MWBE	\$ 58,721,280	\$ 62,120,532	\$ 65,726,217	\$ 49,191,159	\$ 67,406,595	\$ 303,165,783
TOTAL FIRMS	\$ 62,381,478	\$ 74,787,858	\$ 85,009,783	\$ 68,772,180	\$ 76,485,313	\$ 367,436,612
Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
African American	0.98%	12.12%	13.58%	15.57%	5.77%	9.89%
Asian American	2.68%	1.16%	1.87%	4.99%	1.54%	2.38%
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	3.66%	13.28%	15.45%	20.56%	7.31%	12.27%
Non-Minority Woman	2.21%	3.65%	7.23%	7.91%	4.56%	5.22%
TOTAL MWBE	5.87%	16.94%	22.68%	28.47%	11.87%	17.49%
NON-MWBE	94.13%	83.06%	77.32%	71.53%	88.13%	82.51%
TOTAL FIRMS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

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with one African American-owned subcontractor for \$300 and a Woman-owned subcontractor has \$200 in subcontracts, then in Total Utilization: $(\$1000 - \$500) = \$500$ attributed to Asian American Prime Contractor and \$300 attributed to African American subcontractor and \$200 attributable to the Non-Minority Woman category.

Total utilization amount for A&E is depicted in Table 22. Altogether, \$23,323 was added as MWBE subcontracting payments to the prime expenditure. The breakdown of subcontract payments showed \$6,223 spent with African American businesses and \$17,100 with Asian America businesses. There was no subcontract amount recorded for Non-Minority Women, Hispanic Americas, or Native Americans in in A&E category during the Study Period.

**Table 22: Total Utilization of A&E
(Prime + Subcontract) Analysis in Relevant Market area
(Using Payment Dollars, CY 2016-2020)
City of Cincinnati Disparity Study**

Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
African American	\$ 62,100	\$ 11,461	\$ -	\$ -	\$ 6,150	\$ 79,710
Asian American	\$ 206,449	\$ 510,229	\$ 325,399	\$ 352,970	\$ 419,588	\$ 1,814,634
Hispanic American	\$ -	\$ -	\$ -	\$ -	\$ 213,581	\$ 213,581
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL MINORITY	\$ 268,549	\$ 521,690	\$ 325,399	\$ 352,970	\$ 639,319	\$ 2,107,925
Non-Minority Woman	\$ 25,269	\$ 36,389	\$ 51,250	\$ 15,713	\$ 4,925	\$ 133,547
TOTAL MWBE	\$ 293,818	\$ 558,079	\$ 376,649	\$ 368,683	\$ 644,244	\$ 2,241,472
NON-MWBE	\$ 2,316,033	\$ 3,775,403	\$ 2,275,553	\$ 1,889,755	\$ 3,089,712	\$13,346,455
TOTAL FIRMS	\$ 2,609,851	\$ 4,333,481	\$ 2,652,202	\$ 2,258,437	\$ 3,733,956	\$15,587,927
Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
African American	2.38%	0.26%	0.00%	0.00%	0.16%	0.51%
Asian American	7.91%	11.77%	12.27%	15.63%	11.24%	11.64%
Hispanic American	0.00%	0.00%	0.00%	0.00%	5.72%	1.37%
Native American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
TOTAL MINORITY	10.29%	12.04%	12.27%	15.63%	17.12%	13.52%
Non-Minority Woman	0.97%	0.84%	1.93%	0.70%	0.13%	0.86%
TOTAL MWBE	11.26%	12.88%	14.20%	16.32%	17.25%	14.38%
NON-MWBE	88.74%	87.12%	85.80%	83.68%	82.75%	85.62%
TOTAL FIRMS	100.00%	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 MWBEs as measured against their Availability in the Relevant Market.

1. Methodology

The statistical approach to answer this question is to assess the existence and extent of disparity by comparing the MWBE utilization percentages (by dollars) to the percentage of the total pool of MWBE firms

DISPARITY INDICES calculate the difference between the percentage of City of Cincinnati’s Utilization of MWBEs during the Study Period and the Availability percentage of MWBEs.

in the relevant geographic and product areas. The actual disparity derived as a result of employing this approach is measured by use of a Disparity Index (DI).

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

Let: U =Utilization percentage for the MWBE group
 A =Availability percentage for the MWBE group
 DI =Disparity Index for the MWBE 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 hundred. Overutilization is when the Disparity Index is over one hundred. Parity or the absence of disparity is when the Disparity Index is one hundred (100) 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 purchasing category and for each race/gender/ethnicity group.

2. Determining the Significance of Disparity Indices

The determination that a particular ethnic or gender group has been overutilized or underutilized is not, standing alone, proof of discrimination. Typically, the determination of whether a disparity is “statistically significant” can be based on the depth of the disparity in that any disparity index that is less than 80 is considered to be a statistically significant Underutilization, and any disparity index over 100 is considered to be an Overutilization. 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 MWBE group, and in each purchasing category. This approach to statistical significance is consistent with the case law.

The existence of a statistically significant disparity between the Availability and utilization of Minority 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, and gender-neutral remedies for this discrimination to give all firms equal access to public contracting within the City of Cincinnati. GSPC will also, if appropriate, recommend narrowly tailored race- ethnicity-, and gender-conscious remedies to ameliorate 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 City of Cincinnati.

3. Prime Disparity Indices

The results of our statistical analysis of utilization data for five Industry Categories are presented in Table 23. The outcomes of the statistical tests are colorized for easy understanding. As reflected in the Table, Asian American-owned businesses were overutilized in A&E. On the other hand, with the exception African Americans in Goods category, all Minority-owned businesses were significantly underutilized in Construction, Professional Services and Other Services. Please see tables showing detailed analysis of this section in Appendix C, Tables C-1 through C-5.

**Table 23: Prime Contractor Utilization Analysis Summary
(Using Payment Dollars, CY 2016-2020)
City of Cincinnati Disparity Indices**

Firm Ownership	Procurement Categories				
	Construction	A&E	Professional Services	Other Services	Goods & Commodities
African American	12.78*	6.13*	77.20*	28.83*	96.90
Asian American	0.0*	324.81	0.0*	0.20	**
Hispanic American	0.0*	57.89*	0.0*	0.0*	**
Native American	**	**	**	**	**
TOTAL MBE	11.46*	98.26	69.91*	26.04*	89.83
Non-Minority Woman	15.92*	8.04*	29.03*	77.20*	18.19*
TOTAL MWBE	12.92*	58.66*	56.81*	38.01*	57.35*
Non-MWBE	122.70	113.24	110.87	111.04	104.72

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Legend:

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

Significant Disparity (Disparity percentage below 80%).
Disparity (Disparity percentage 80% to 99.9%).
Over Utilized (Disparity percentage over 100%).
No color is Parity.

4. Disparity Indices – Total Utilization (Prime plus Subcontractor)

The outcome of statistical analysis for a few categories changed after adding subcontract amounts to the prime in the Total Utilization section. As Table 24 shows, the results of our statistical analysis revealed Overutilization for Asian American businesses after adding the subcontract amount to the prime. The rest of the categories remained underutilized. Please see tables showing detailed analysis of this section in Appendix D, Tables D-1 through D-5.

**Table 24: Total Utilization Analysis Summary (Prime + Subcontract)
(Using Payment Dollars, CY 2016-2020)
City of Cincinnati Disparity Indices**

Firm Ownership	Procurement Categories	
	Construction	A&E
African American	79.23*	6.65*
Asian American	365.74	327.90
Hispanic American	0.0*	57.89*
Native American	**	**
TOTAL MBE	88.18	99.36
Non-Minority Woman	77.24*	8.04*
TOTAL MWBE	84.62	59.27*
Non-MWBE	104.01	113.05

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Legend:

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

Significant Disparity (Disparity percentage below 80%).
Disparity (Disparity percentage 80% to 99.9%).
Over Utilized (Disparity percentage over 100%).
No color is Parity.

H. Threshold and Contract Size Analysis

This section of the report addresses the crucial question of whether, controlling or excluding of outliers impact the analysis results and/or is the disparity decreased in lower dollar awards.

1. Methodology

To control for outliers and to reexamine the analysis of disparity after removing large contracts, GSPC, conducted three sets of statistical analysis:

Threshold and Contract Size analysis shows the outliers in each procurement category and provides an opportunity to control or exclude them prior to conducting statistical analysis. It also provides indicators as to whether unbundling of contracts should be considered and shows the extent to which there may be opportunities for small businesses to participate as Prime Contractors.

- Threshold analysis of all contracts over \$5,000 value.
- Statistical analysis of all contracts with less than \$1,000,000 total amount.
- Statistical analysis of all contracts with less than \$500,000 total amount.

The above procedures individually and collectively show the contract sizing and the potential capacity of Minority-owned firms in engaging and receiving those contracts.

2. Threshold Analysis:

GSPC conducted Threshold analysis on all contracts with a total value of \$5,000 or higher during the Study Period (CY 2016-2020). It is imperative to note that Threshold analysis is a practical way of showing the contract size by simply eliminating or controlling for outliers. Table 25 depicts the results of Threshold analysis for Construction contracts. As shown in the table the average Construction contracts with over \$5000, value was \$476,519 with median value of \$42,201, meaning that 50% of Construction contracts were less than the median amount.

**Table 25: Threshold Analysis, Relevant Market area
Number of Awards, Prime Contractor Utilization, Construction
(Using Contract Dollars over \$5,000, CY 2016-2020)
City of Cincinnati Disparity Study**

Contract Threshold	Number of Contracts	Percent of Contracts	Dollars	Percent of Dollars
5,000 to 10,000	132	17.19%	\$ 934,148	0.26%
10,001 to 50,000	270	35.16%	\$ 6,108,829	1.67%
50,001 to 100,000	75	9.77%	\$ 5,400,754	1.48%
100,001 to 250,000	81	10.55%	\$ 13,794,689	3.77%
250,001 to 500,000	65	8.46%	\$ 24,961,215	6.82%
500,001 to 750,000	31	4.04%	\$ 19,325,738	5.28%
750,001 to 1,000,000	26	3.39%	\$ 23,368,320	6.39%
1,000,001 to 1,500,000	26	3.39%	\$ 30,287,847	8.28%
1,500,001 to 2,000,000	17	2.21%	\$ 29,667,585	8.11%
2,000,001 to 2,500,000	9	1.17%	\$ 20,424,314	5.58%
2,500,001 to 5,000,000	19	2.47%	\$ 66,140,202	18.07%
Over 5,000,000	17	2.21%	\$ 125,552,905	34.31%
Total	768	100.00%	\$ 365,966,546	100.00%

Griffin & Strong, P.C. 2020

Mean = \$476,519
Median = \$42,201

The Threshold analysis of A&E contracts is presented in Table 26. Of the total 124 contracts analyzed in this study, over 48% fell between \$5,000 and \$50,000 category. The Table also shows that only 7.44% of the A&E contracts were \$1 million or higher.

**Table 26: Threshold Analysis, Relevant Market area
Number of Awards, Prime Contractor Utilization, A&E
(Using Contract Dollars over \$5,000, CY 2016-2020)
City of Cincinnati Disparity Study**

Contract Threshold	Number of Contracts	Percent of Contracts	Dollars	Percent of Dollars
5,000 to 10,000	17	13.71%	\$ 122,953	0.79%
10,001 to 50,000	43	34.68%	\$ 1,284,995	8.29%
50,001 to 100,000	21	16.94%	\$ 1,527,533	9.86%
100,001 to 250,000	24	19.35%	\$ 3,934,253	25.38%
250,001 to 500,000	13	10.48%	\$ 4,179,823	26.97%
500,001 to 750,000	5	4.03%	\$ 3,295,469	21.26%
750,001 to 1,000,000	0	0.00%	\$ -	0.00%
1,000,001 to 1,500,000	1	0.81%	\$ 1,153,850	7.44%
1,500,001 to 2,000,000	0	0.00%	\$ -	0.00%
2,000,001 to 2,500,000	0	0.00%	\$ -	0.00%
2,500,001 to 5,000,000	0	0.00%	\$ -	0.00%
Over 5,000,000	0	0.00%	\$ -	0.00%
Total	124	100.00%	\$ 15,498,876	100.00%

Griffin & Strong, P.C. 2020

Mean = \$124991
Median = \$34,058

In reference to Professional Services, GSPC analysis recorded a higher percentage of contracts in the lower amount categories. As shown in Table 27, almost 72% of Professional Services contracts fell below \$100,000 value with nearly 56% within \$5,000 and \$50,000 brackets. As the Table reflects the average Professional Services contract was \$188,772 with a median of \$35,568.

**Table 27: Threshold Analysis, Relevant Market area
Number of Awards, Prime Contractor Utilization, Professional Services
(Using Contract Dollars over \$5,000, CY 2016-2020)
City of Cincinnati Disparity Study**

Contract Threshold	Number of	Percent of Contracts	Dollars	Percent of Dollars
5,000 to 10,000	47	15.36%	\$ 320,602	0.56%
10,001 to 50,000	124	40.52%	\$ 2,757,538	4.77%
50,001 to 100,000	49	16.01%	\$ 3,454,965	5.98%
100,001 to 250,000	53	17.32%	\$ 8,397,469	14.54%
250,001 to 500,000	14	4.58%	\$ 4,536,152	7.85%
500,001 to 750,000	5	1.63%	\$ 2,784,769	4.82%
750,001 to 1,000,000	4	1.31%	\$ 3,471,703	6.01%
1,000,001 to 1,500,000	1	0.33%	\$ 1,080,484	1.87%
1,500,001 to 2,000,000	2	0.65%	\$ 4,129,464	7.15%
2,000,001 to 2,500,000	0	0.00%	\$ -	0.00%
2,500,001 to 5,000,000	7	2.29%	\$ 26,831,013	46.45%
Over 5,000,000	0	0.00%	\$ -	0.00%
Total	306	100.00%	\$ 57,764,159	100.00%

Griffin & Strong, P.C. 2020

Mean = \$188,772
Median = \$35,568

GSPC recorded a similar trend following the Threshold analysis of Other Services contracts. As reflected in Table 28, of 747 Other Services contracts, close to 55% were within the \$5,000 and \$50,000 value. Only 5.89% of Other Services contracts had a price tag of \$1 million or higher. The average contract price was \$282,370 and median of \$42,305.

**Table 28: Threshold Analysis, Relevant Market area
Number of Awards, Prime Contractor Utilization, Other Services
(Using Contract Dollars over \$5,000, CY 2016-2020)
City of Cincinnati Disparity Study**

Contract Threshold	Number of	Percent of Contracts	Dollars	Percent of Dollars
5,000 to 10,000	117	15.66%	\$ 844,970	0.40%
10,001 to 50,000	293	39.22%	\$ 7,586,874	3.60%
50,001 to 100,000	91	12.18%	\$ 6,533,736	3.10%
100,001 to 250,000	98	13.12%	\$ 16,272,537	7.71%
250,001 to 500,000	64	8.57%	\$ 22,104,811	10.48%
500,001 to 750,000	30	4.02%	\$ 18,479,138	8.76%
750,001 to 1,000,000	10	1.34%	\$ 8,793,800	4.17%
1,000,001 to 1,500,000	18	2.41%	\$ 22,336,833	10.59%
1,500,001 to 2,000,000	5	0.67%	\$ 8,742,536	4.14%
2,000,001 to 2,500,000	4	0.54%	\$ 8,818,420	4.18%
2,500,001 to 5,000,000	9	1.20%	\$ 31,278,322	14.83%
Over 5,000,000	8	1.07%	\$ 59,138,761	28.04%
Total	747	100.00%	\$ 210,930,738	100.00%

Griffin & Strong, P.C. 2020

Mean = \$282,370

Median = \$42,305

The results of Goods Threshold analysis contracts are presented in Table 29. As the previous contract categories, Goods Contracts were positioned in the lower amount categories. As shown in the Table, over 60% of Goods and contracts fell between \$5,000 and \$50,000 interval. Only 5.25% of the Goods contracts were over \$1 million.

**Table 29: Threshold Analysis, Relevant Market area
Number of Awards, Prime Contractor Utilization, Goods
(Using Contract Dollars over \$5,000, CY 2016-2020)
City of Cincinnati Disparity Study**

Contract Threshold	Number of	Percent of Contracts	Dollars	Percent of Dollars
5,000 to 10,000	136	18.81%	\$ 952,260	0.56%
10,001 to 50,000	299	41.36%	\$ 7,447,084	4.41%
50,001 to 100,000	86	11.89%	\$ 6,191,387	3.67%
100,001 to 250,000	81	11.20%	\$ 13,242,095	7.84%
250,001 to 500,000	51	7.05%	\$ 18,168,711	10.76%
500,001 to 750,000	18	2.49%	\$ 10,704,509	6.34%
750,001 to 1,000,000	14	1.94%	\$ 11,542,253	6.84%
1,000,001 to 1,500,000	17	2.35%	\$ 19,603,915	11.61%
1,500,001 to 2,000,000	8	1.11%	\$ 13,875,833	8.22%
2,000,001 to 2,500,000	3	0.41%	\$ 6,955,953	4.12%
2,500,001 to 5,000,000	7	0.97%	\$ 23,311,596	13.81%
Over 5,000,000	3	0.41%	\$ 36,810,460	21.81%
Total	723	100.00%	\$ 168,806,056	100.00%

Griffin & Strong, P.C. 2020

Mean = \$233,480

Median = \$33,176

3. Contract Size Analysis

In this set of analyses, GSPC used a statistical control procedure by excluding contracts over \$1 million to investigate the potential disparity. The results are presented in a summary Table 30 for easy comparison with the full Prime Data analysis results (Section E of this chapter). As shown in Table 30, most categories showed significant disparity. The percentages in the table show the correlation between Utilization and Availability (See the formula in Section F of this chapter). Comparing this table with the statistical analysis for all prime data, one can simply observe improved disparity indices, particularly for the Non-Minority Women, but they remain proportionally low for most categories. Please see tables showing detailed analysis of this section in Appendix E, Tables E-1 through E-5.

**Table 30: Disparity Results, all Prime Awards
Prime Data Disparity Results for Contract Less than \$1 million
(Using Payment Dollars, CY 2016-2020)
City of Cincinnati Disparity Study**

Firm Ownership	Industry Categories				
	Construction	A&E	Professional Services	Other Services	Goods & Commodities
African American	34.58*	6.62*	22.20*	46.47*	83.48
Asian American	0.0*	125.65	0.0*	0.0*	0.0*
Hispanic American	0.0*	62.54*	0.0*	0.0*	1.89*
Native American	**	**	**	**	**
TOTAL MBE	31.03*	47.40*	20.10*	41.95*	77.41*
Non-Minority Woman	61.63*	8.69*	65.52*	106.09	44.71*
TOTAL MWBE	41.04*	30.40*	34.66*	56.96*	62.59*
Non-MWBE	115.37	122.29	116.44	107.66	104.14

Griffin & Strong, P.C. 2022

Legend:

* Statistically significant disparity (Confidence interval of 95% and probability of error of less than 5%).

**Very small number to produce statistical significance

Significant Disparity (Disparity percentage below 80%).

Disparity (Disparity percentage 80% to 99.9%).

Over Utilized (Disparity percentage over 100%).

No color is Parity.

Finally, GSPC analyzed all contracts under \$500,000 to detect and record the sources of disparity. As shown in Table 31, the disparity indices for African American businesses increased in A&E and Professional Services but decreased in Goods category. Please see tables showing detailed analysis of this section in Appendix F, Tables F-1 through F-5.

**Table 31: Disparity Results, all Prime Awards
Prime Data Disparity Results for Contract Less than \$500K
(Using Payment Dollars, CY 2016-2020)
City of Cincinnati Disparity Study**

Firm Ownership	Industry Categories				
	Construction	A&E	Professional Services	Other Services	Goods & Commodities
African American	36.99*	8.58*	29.23*	48.70*	60.39*
Asian American	0.0*	162.84	0.0*	0.0*	0.0*
Hispanic American	0.0*	81.05	0.0*	0.0*	**
Native American	0.0*	**	**	**	**
TOTAL MBE	33.18*	61.42*	26.47*	43.96*	56.03*
Non-Minority Woman	97.22	11.26*	45.95*	110.19	65.05*
TOTAL MWBE	54.13*	39.40*	32.71*	59.46*	60.12*
Non-MWBE	111.96	119.41	116.93	107.22	104.41

Griffin & Strong, P.C. 2022

Legend:

* Statistically significant disparity (Confidence interval of 95% and probability of error of less than 5%).

**Very small number to produce statistical significance

Significant Disparity (Disparity percentage below 80%).
Disparity (Disparity percentage 80% to 99.9%).
Over Utilized (Disparity percentage over 100%).

No color is Parity.

It is important to add that the above statistical analyses, both individually and collectively, provide a response to some concerns about contract outliers and contract size in the analysis of disparity. It is imperative to note that even with contracts lower than \$500,000, GSPC recorded disparity in all Industry Categories for African American and Non-Minority Woman-owned businesses.

I. Statistical Analysis Based on Certified and Non-Certified Minority-owned Firms

While the analysis of Prime expenditure, Availability of firms, and Subcontract payments has been based on Certified Minority-owned firms in this Study, we have added a new set of statistical analyses based on both Certified and Non-Certified firms. In doing so, firms were classified as Minority businesses if they claimed they were in that category, even if they were not officially certified as such. In that respect, all firms listed as SBE, ELBE, SLBE, and even those who initiated the certification process but were not officially certified were classified as MWBEs. This reclassification was done for Prime expenditure; Availability of firms in the Relevant Market area; and Subcontract payments. Please see Statistical Tables related to this section in Appendix G (Tables G-1 through G-5) showing utilization of Prime expenditure based on certified and Non-Certified Minority firms in Hamilton County. Likewise, Appendix H (Tables H-1 through H-5)

depicts the Availability of the firms by firm ownership. Appendix I (Tables I-1 through I-5) shows the disparity analyses for this section. Appendix-J (Tables J-1 and J-2) depicts the Total Utilization analysis. Finally, Appendix K (Tables K-1 and K-2) shows the disparity analyses for Total Utilization based on Certified and Non-Certified firms.

J. Conclusion

Our analysis of the number of vendors utilized in each Industry Category along with the Total Utilization revealed that a proportionately smaller number of MWBE businesses were utilized in all Industry Categories. Except for African American in Goods and Asian American in A&E, every MWBE group was significantly underutilized in each category throughout the Study Period as Prime Contractor.

After adding the Subcontract amounts to Prime payments, Asian Americans showed Overutilization in A&E category. The rest of firms showed significant disparity in both Construction and A&E categories.

The Threshold and Contract Sizing analyses revealed that most contracts in Construction, A&E, Professional Services, Other Services, and Goods were valued between \$5,000 and \$50,000. In addition, after controlling for contracts over \$1 million, significant disparity appeared in most categories. The disparity remained with most contract categories for MWBE firms when the analysis was limited to only contracts under \$500,000.

VI. ANALYSIS OF MARKETPLACE CONTRACTING DISPARITIES IN THE CITY OF CINCINNATI RELEVANT MARKET

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-MWBE firms in the City of Cincinnati Relevant Market¹⁵⁹. Our analysis utilizes data from businesses that are willing, able, or have actually contracted/subcontracted in the City of Cincinnati Relevant Market, with the aim of determining if the likelihood of successful contracting/subcontracting opportunities — actual and perceived — in the City of Cincinnati Relevant Market is conditioned, in a statistically significant manner, on the race, ethnicity, or gender status of firm owners. Such an analysis is a useful and important complement to estimating simple disparity indices, which assume all things important for success and failure are equal among 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 confounders¹⁶⁰ 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 the GSPC econometric/statistical methodology, along with additional analysis of relevant private and public sector outcomes that can inform public contracting disparities between MWBEs and non-MWBEs in the City of Cincinnati Relevant Market is provided in Appendix O.

Our analysis posits 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 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 possibly reflect, in whole or in 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 would be suggestive of these salient and mostly immutable characteristics causing the observed disparities.

A broad context for considering disparities by firm ownership status can be informed by considering private sector outcomes in the relevant City of Cincinnati Relevant Market. In general, the success and failure of MWBEs in public contracting could be conditioned by their outcomes in the private sector regarding their revenue generating capacity. The value of a descriptive private sector analysis is that it situates disparity analyses in the “but-for” justification. Ian Ayres and City of Cincinnati Vars (1998), in their consideration of the constitutionality of public affirmative programs, posit a scenario in which private suppliers of financing systematically exclude or charge higher prices to Minority businesses, which potentially increases the cost of which Minority-owned businesses can provide services required under public contracts relative

¹⁵⁹ The relevant market is Hamilton County, Ohio.

¹⁶⁰ 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.

to Non-Minority-owned businesses.¹⁶¹ This private discrimination means that MWBEs may only have recourse to higher cost financing due to discrimination faced in private sector capital markets, which compromises the competitiveness of their bids. Such a perspective on discrimination suggests that barriers faced by MWBEs 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 32 below reports on firm ownership type and “proxied” sales revenue for Hamilton County in the State of Ohio—the relevant market area—from the US Census Bureau’s 2017 Annual Business Survey (ABS)—the most recently available data.¹⁶² 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 publicly held and other firms not classifiable by sex, ethnicity, race, and veteran status.

For the relevant market area, Table 32 reveals that relative to Caucasian American-owned firms, the estimated revenue shares of each Minority-owned firm never exceed 3.8% (Women).¹⁶³ With the exception of Hispanic American-owned firms, MWBEs have estimated revenue shares far smaller than their firm representation shares. Relative to firms owned by Caucasian Americans in the City of Cincinnati Relevant Market, exclusive of Women-owned firms—some of whom are Caucasian American—the MWBE revenue shares are of a large order of magnitude below their estimated 16% (approximately) firm representation shares. This is consistent with and suggestive of, but not necessarily causal evidence for MWBEs facing discriminatory barriers in the private sector of the City of Cincinnati Relevant Market.

¹⁶¹ See: Ayres, Ian, and Fredrick E. Vars. 1998, "When does private discrimination justify public affirmative action?" *Columbia Law Review*, 98: 1577-1641.

¹⁶² ABS data are publicly available at <https://www.census.gov/programs-surveys/abs/data.htm>. 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.

¹⁶³ The percentages do not “add-up” to one, as the Women ownership category is not “mutually exclusive” of the other race, ethnicity, and gender categories.

**Table 32: Firm Ownership Type and Revenue Characteristics
Hamilton County Market Area:
2017 Annual Business Survey**

Ownership Structure	Number of Firms	Percentage of all Firms (approximate)	Market Area Revenue (\$1,000)	Percentage of Market Area Revenue (approximate)	Ratio of Firm Share to Revenue Share (approximate)
All	15,272	100	\$136,511,027	100	1.0
Women	2,735	.179	\$264,469	.038	4.71
Caucasian America	12,179	.797	\$9,309,457	.289	2.76
African American	385	.025	\$131,021	.003	8.33
American Indian & Alaskan Native	25	.002	\$11,258	.0005	4.0
Asian American	598	.039	\$117,815	.004	9.75
Native Hawaiian & Other Pacific Islander Americans	Suppressed ^a	Suppressed ^a	Suppressed ^a	Suppressed ^a	Suppressed ^a
Hispanic American	141	.009	\$64,782	.002	4.5
Publicly Held and not classifiable by race, gender, ethnicity	2,074	.134	\$95,828,603	.702	.191

Source: US Census Bureau 2017 Annual Business Survey. ^a Value suppressed to preserve confidentiality as a result of very few firms or there are one or two large firms that dominate the statistic. In general, across the payroll and counts for each type of firm in the ABS, there were in many instances data suppressions due to confidentiality, unreliable estimates, or lack of availability. As such, the descriptive statistics reported in Table 32 are what was estimable in the ABS.

Given that publicly held firms are not usually classifiable by race, ethnicity, and gender status, and account for a disproportionate share of revenues, a simple comparison of an MWBE firm and revenue share may not inform the existence of any private sector disparities with precision. In this context, the ratio of an MWBE firm share to revenue share may be more informative of disparities.¹⁶⁴ For example, in the case of firms owned by Asian Americans, this ratio is (.039)/(.004) or approximately 9.75, suggesting that the revenue share of firms owned by Asian Americans would have to increase by a factor of approximately 9.75 to achieve firm share Parity in the City of Cincinnati Relevant Market. For firms owned by Caucasian Americans this ratio is approximately 2.76. Thus, relative to Caucasian American-owned firms, those owned by Asian Americans are revenue underrepresented in the City of Cincinnati Relevant Market by a factor of approximately $9.75/2.76 = 3.53$ or approximately 353%. In general, the estimates suggest that the majority

¹⁶⁴ 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.

of firms owned by minorities, non-Caucasian Americans, or MWBEs in the City of Cincinnati Relevant Market are revenue underrepresented relative to Caucasian American-owned firms.

Overall, the descriptive summary in Table 32 suggests that in the City of Cincinnati Relevant Market private sector, MWBEs face barriers that translate into lower firm revenues. In general, if being an MWBE in the City of Cincinnati Relevant Market private sector is associated with lower firm revenue, absolutely and relative to their firm share in the market, this lends some support to the “but-for” justification for affirmative action in public procurement. Lower revenues for MWBEs in the City of Cincinnati Relevant Market is suggestive, but does not necessarily prove, the existence of private discrimination that undermines their capacity to compete with Non-MWBEs for public contracting opportunities. This could motivate a private discrimination justification for Affirmative Action in City procurement policies, otherwise the City of Cincinnati is potentially a passive participant in private discrimination against MWBEs with respect to its procurement practices.

C. Self-Employment

The Concrete Works decision upholding an MWBE program was based in part on evidence that “African Americans, Hispanic Americans, and Native Americans working in Construction have lower rates of self-employment than similarly situated Caucasian Americans.”¹⁶⁵

To explicitly examine potential disparities in the rates of business ownership in the City of Cincinnati relevant 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.¹⁶⁶ 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, to estimate the effects of MWBE status on self-employment while minimizing and/or eliminating confounding factors.¹⁶⁷ 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.

Our ACS data define the City of Cincinnati Relevant Market as Hamilton County, Ohio. In particular, we selected the ACS sample on the basis of the Federal Information Processing Standard coding scheme (FIPS) county variable, which identifies counties on the basis of the Federal Information Processing Standard coding scheme (FIPS). In general, FIPs are standards established by the National Institute of Standards

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

¹⁶⁶ 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/DOI10.V10.0>*

¹⁶⁷ 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.

and Technology (NIST) for encoding data, such as those that identify geographical areas (e.g., counties, states, metropolitan statistical areas).

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 MWBE status indicators (e.g. African American, Woman), the excluded category is Caucasian American Males, and a positive (or negative) odds ratio indicates that relative to Caucasian American Males, having that MWBE characteristic increases (or decreases) the likelihood of being self-employed in the City of Cincinnati Relevant Market. The MWBE status indicators are of primary interest, as they inform the extent to which MWBE 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 MWBE 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 33 reports parameter estimates across all business sectors in the City of Cincinnati Relevant Market. Relative to Caucasian Americans, minorities are neither more or less likely to be self-employed, as the estimated odds for minorities are never statistically significant. This suggests that relative to Caucasian Americans, minorities do not face any barriers to self-employment in the City of Cincinnati Relevant Market. If there were lower self-employment likelihood for minorities in the City of Cincinnati Relevant Market, it could inform 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 MWBE public procurement programs.¹⁶⁸

Table 34 reports parameter estimates for Construction in the City of Cincinnati 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 firms owned by Caucasian Americans, firms owned by Women, Hispanic Americans, Pacific Islander Americans, and Other Race are less likely to be self-employed in the City of Cincinnati Relevant Market Construction sector. This is suggestive of these firms facing barriers to self-employment in the City of Cincinnati Relevant Market Construction sector. The lower likelihood of these type of MWBEs being self-employed in the Construction sector in the City of Cincinnati Relevant Market 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 MWBE public Construction procurement programs.¹⁶⁹

¹⁶⁸ 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.

¹⁶⁹ Marion, Justin. 2009. "Firm Racial Segregation and Affirmative Action in the Highway Construction Industry." *Small Business Economics* 33: Article 441.

**Table 33: Self-Employment/Business Ownership in City of Cincinnati Relevant Market (Hamilton Co.):
Logit Parameter Odds Ratio Estimates From The 2019 American Community Survey**

	Coefficient	P-value
<i>Regression: Self-Employed: Binary</i>		
Age	1.0086	0.7917
Age Squared	1.0003	0.3672
Respondent is Married: Binary	1.6097	0.0012
Respondent is Woman: Binary	0.6335	0.0000
Respondent is Non-Hispanic Black: Binary	0.5594	0.0597
Respondent is Non-White Hispanic: Binary	0.0852	0.0021
Respondent is Native American: Binary	4.3289	0.0081
Respondent is a Pacific Islander: Binary	0.0543	0.0000
Respondent is Asian American: Binary	0.9838	0.9783
Respondent is Other Race: Binary	4.0992	0.1676
Respondent is Veteran: Binary	0.8505	0.5120
Respondent has a 4-year degree: Binary	1.2054	0.1166
Respondent speaks only English: Binary	0.7119	0.4541
Respondent is Disabled: Binary	0.5344	0.5332
Value of Home	1.0173	0.0859
Interest, Dividend, and Rental Income	1.0218	0.4234
Mortgage Payment	1.0001	0.5155
Number of Observations	3,335	
Pseudo R ²	0.0764	

Source of Data: American Community Survey 2019, IPUMs USA

**Table 34: Construction Sector Self-Employment/Business Ownership in City of Cincinnati Relevant Market (Hamilton Co.):
Logit Parameter Odds Ratio Estimates From The 2019 American Community Survey**

	Coefficient	P-value
<i>Regression:</i> Self-Employed In Construction Industry: Binary		
Age	1.1443	0.2084
Age Squared	0.9988	0.2843
Respondent is Married: Binary	1.4910	0.2199
Respondent is Woman: Binary	0.0236	0.0000
Respondent is Non-Hispanic Black: Binary	0.7952	0.6918
Respondent is Non-White Hispanic: Binary	0.4317	0.0000
Respondent is Native American: Binary	4.8743	0.1138
Respondent is a Pacific Islander: Binary	0.0813	0.0000
Respondent is Asian American: Binary	2.5450	0.3579
Respondent is Other Race: Binary	0.8143	0.0000
Respondent is veteran: Binary	0.7142	0.0000
Respondent has a 4-year degree: Binary	0.4903	0.0027
Respondent speaks only English: Binary	5.4603	0.0000
Respondent is Disabled: Binary	4.9952	0.2226
Value of Home	1.1248	0.5944
Interest, Dividend, and Rental Income	1.0713	0.4209
Mortgage Payment	0.9997	0.4843
Number of Observations	3,334	
Pseudo R^2	0.1805	

Source of Data: American Community Survey 2019, IPUMs USA

D. Building Permit Analysis

To enable a closer look at the extent of Minority, Women, and Disadvantaged Business Enterprises (MWDBE) participation in the overall City of Cincinnati Relevant Market, Table 35 reports on the distribution of building permits by identifiable firm type in City of Cincinnati for the 2010 -2022 calendar years. 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 MWDBEs are participating in the market economy of a given political jurisdiction such as the City of Cincinnati.

Our analysis of commercial building permits in the City of Cincinnati Relevant Market linked rosters of identified MWBE firms to submitted building permits for the 2010–2022 calendar years. 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 Minority and Woman business enterprises (MWBE) firms from the City of Cincinnati building permit data for the 2010–2021 calendar years, which ultimately consisted of 129,362 entries with text strings indicating the names of businesses/firms that submitted commercial building permit applications.

Given GSPC’s FM-enabled identification of MWBE firms, Table 35 reports the distribution of building permits by firm type for the 2010–2022 calendar years in the City of Cincinnati. Our matching algorithm enable the identification of firms broadly classified as MWBE, and those who are owned by Asian Americans, Asian Pacific-Islanders, African Americans, Hispanic Americans, and Women. In the case of the race/gender identifications, there is no inherent mutual exclusivity with the MWBE classification, with some of the firms identified as being owned by African Americans and Women not necessarily certified as MWBEs.

The distribution of commercial building permits reported in Table 35 reveal that for the 2010-2022 calendar years, the total number of building permits going to any of the firm types classified as MWBE was 2,459, which constituted approximately .019 or 2% of all commercial building permits issued. For firms identified as Hispanic American-owned, not necessarily certified as MWBE, our estimates reveal that 2 permits were secured, constituting approximately, and significantly, less than 1% of all building permits. In the case of firms identified as being Women-owned, a total of 1,018 permits were secured, constituting approximately, and significantly, less than 1% of all building permits.

The estimated low commercial building permit shares for MWBEs suggests that, in the City of Cincinnati, there are private sector barriers that constrain the ability of these type of firms to participate in the economy. Our estimates suggest that firms not classified as MWBEs accounted for approximately 98% of building permits in the City of Cincinnati during the 2010-2022 calendar years. 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 dominance of non-MWBEs in securing building permits suggest the presence of private sector barriers faced by MWBEs. This could undermine the ability of MWBEs to compete for public contracts and subcontracts. In this context, if there are any public contracting/subcontracting disparities between MWBEs and non-MWBEs in the City of Cincinnati Relevant Market, it could constitute passive discrimination againsts MWBEs, as the disparities could reflect the barriers, possibly discriminatory that MWBEs face in the private sector which serve to undermine their capacity to compete for contracts and subcontracts with the City of Cincinnati.

**Table 35: Distribution of Building Permits
In City of Cincinnati Relevant Market
Calendar Years 2010 - 2022**

Business/Firm Type	Number of Building Permits ^a	Percent of Building Permits
Total MWBE	2,459	0.019
Asian American -owned	420	0.003
Asian Pacific-Islander American-owned	25	0.0002
African American-owned	1,608	0.012
Hispanic American-owned	2	0.00002
Non-Minority Women-owned	1,018	0.0078
Total Non-MWBE	126,923	0.9811
Total	129,362	1.000

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Notes: ^a Rounded to nearest integer

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 projects 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 discrimination faced 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).¹⁷⁰

To determine if SMWDBEs face barriers in the private credit market in the City of Cincinnati Relevant Market, Tables 36-37 report, for each of the distinct SMWDBEs and owner self-reported race, ethnicity, and gender ownership characteristics in the GSPC sample, the estimated parameters of an Ordinal Logit BRM with the dependent variable being a categorical variable for the number of times the firm was denied a private commercial bank loan firm between the years 2016–2020.

The estimated odds ratios in Table 36 reveal that for the four distinct broadly classified SMWDBEs in the GSPC sample, relative to non-SMWDBEs—the excluded group in the CRM specification—certified Minority firms have more commercial bank loan denials. This suggests that these types of SMWDBEs face barriers in the private credit market. When disaggregated by the race, ethnicity, and gender of owners, the results in Table 37 suggest that firms owned by Asian Americans, Native Americans, and Women have more commercial bank loan denials relative to non-SMWDBEs as the estimated odds ratio is greater than unity and statistically significant in these instances. This suggests that among SMWDBEs in the City of Cincinnati Relevant Market, firms that are owned by Asian Americans, Native Americans, and Women 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.

¹⁷⁰ 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.

**Table 36: Ordinal Logit Parameter Estimates-Bank Loan Denials (Odds Ratio):
Owner Racial/Ethnic Status and Commercial Bank Loan Denials
In City of Cincinnati Relevant Market**

	Coefficient	P-value
<i>Regression:</i> Number of times denied commercial bank loan: (Ordinal)		
Firm owner has more than 20 years' experience: (Binary)	0.8430	0.6344
Firm has more than 10 employees: (Binary)	1.2660	0.5064
Firm owner has a baccalaureate degree: (Binary)	0.9906	0.9761
Firm gross revenue greater than 1.5 million: (Binary)	1.6146	0.2215
Firm Bonding limit greater than 1.5 million: (Binary)	0.6619	0.0059
Financing is a barrier for securing City of Cincinnati projects: (Binary)	0.2473	0.0065
Firm is in the Construction sector: (Binary)	0.8438	0.6557
Firm is registered to do business with City of Cincinnati: (Binary)	0.6803	0.2762
Firm is a willing/able Prime Contractor for City of Cincinnati: (Binary)	3.2388	0.0369
Firm is a willing/able Subcontractor for City of Cincinnati: (Binary)	0.5858	0.4174
Firm is a certified Minority business enterprise: (Binary)	2.7562	0.0318
Firm is a certified Woman enterprise: (Binary)	1.4683	0.3447
Firm is a certified disadvantaged business enterprise: (Binary)	1.0465	0.9348
Firm is a certified small business enterprise: (Binary)	1.1939	0.6593
Number of Observations	215	
Pseudo R ²	0.0823	

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Table 37: Ordinal Logit Parameter Estimates-SMWBE Commercial Bank Loan Denials
SMWBE Status and Commercial Bank Loan Denials
In City of Cincinnati Relevant Market

	Coefficient	P-value
<i>Regressand:</i> Number of times denied commercial bank loan: (Ordinal)		
Firm owner has more than 20 years' experience: (Binary)	1.0107	0.9778
Firm has more than 10 employees: (Binary)	1.4209	0.3371
Firm owner has a baccalaureate degree: (Binary)	0.9634	0.0285
Firm gross revenue greater than 1.5 million: (Binary)	1.3372	0.4760
Firm Bonding limit greater than 1.5 million: (Binary)	0.6683	0.2342
Financing is a barrier for securing City of Cincinnati projects: (Binary)	0.2379	0.0065
Firm is in the Construction sector: (Binary)	0.9886	0.9764
Firm is registered to do business with City of Cincinnati: (Binary)	0.7501	0.4105
Firm is a willing/able Prime Contractor for City of Cincinnati: (Binary)	3.3894	0.0301
Firm is a willing/able Subcontractor for City of Cincinnati: (Binary)	0.5572	0.3779
Firm is African American-owned: (Binary)	2.8194	0.1175
Firm is Hispanic American-owned: (Binary)	1.2253	0.8845
Firm is Asian American-owned: (Binary)	4.4872	0.0375
Firm is Native American-owned: (Binary)	14.0924	0.0139
Firm is other race-owned: (Binary)	0.2168	0.2536
Firm is Woman-owned: (Binary)	2.2135	0.0183
Number of Observations	215	
Pseudo R ²	0.1090	

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F. Conclusion

A descriptive and inferential private sector analysis of the City of Cincinnati Relevant Market revealed that in general, being an MWBE in the City of Cincinnati Relevant Market is associated with lower firm revenue relative to non-MWBE firms. For firms owned by Women, Hispanic Americans, Pacific Islander Americans and Other Race, self-employment likelihoods are lower, 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 MWBEs. Lower revenues for MWBEs in the City of Cincinnati Relevant Market 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 reveal that non-MWBEs dominate economic activity in the City of Cincinnati Relevant Market. The dominance of non-MWBEs in securing building permits suggests the presence of private sector barriers faced by MWBEs that inhibit their ability to gain access to contracting/subcontracting opportunities with the City of Cincinnati. We also find that among SMWDBEs in the City of Cincinnati Relevant Market, firms certified/classified as Minority, and those owned by Asian Americans, Native Americans, and Women 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, as suggested by differential commercial bank loan denials.

In other relevant outcomes, the regression results reported in Appendix O provide additional insight into how SMWDBEs in the City of Cincinnati Relevant Market fare in comparison to Non-SMWDBEs in the relevant private and public sectors. This includes how SMWDBEs are potentially constrained by discrimination and exclusion that could translate into lower likelihoods of winning prime contracts. For example, regression results reported in Appendix O suggest that certified Disadvantaged business enterprises and firms owned by African Americans are particularly harmed by perceived discrimination against them by the City of Cincinnati.

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 the City of Cincinnati. The quotes, themes, and conversations presented are not intended to be representative of every single community member or even most of the community but are an attempt to authentically represent the variety of individual perspectives about the City's contracting, procurement, and small, Minority and Women-owned business utilization. Those experiences can be and often are perceived differently from person to person, so it is possible that readers recollect experiences differently than those referenced. However, perceived experiences undergird and inform beliefs, and those beliefs then undergird and inform behavior. Since the behavior of all parties involved in procurement and contracting is relevant to the Study, the beliefs, experiences, and perceptions integral to those beliefs are as well.

The GSPC Study team 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 City. They may also serve to highlight areas where communication between the City and the public regarding policy and procedure can be bolstered or improved.

The Study team used a variety of methods to gather evidence from a diverse collection of participants. Three virtual public engagement meetings were convened with 33 community attendees participating on January 26, 2022; six (6) on January 27, 2022; and 29 community attendees participating on February 22, 2022. All three public hearings were widely publicized through social media, press releases to area news outlets, email blasts, and an announcement on the Study's website. The Study team also assembled two virtual focus groups of randomly selected stakeholders to facilitate discussions about working with the City on January 25, 2022, comprising five (5) participants, and then six (6) participants on January 27, 2022.

The Study team engaged with 30 diverse local businesses and vendors randomly selected for several 30- to 60-minute virtual or phone interviews conducted between October 25, 2021, and January 27, 2022. The interviewees include five (5) Asian American-owned businesses, seven (7) African American-owned businesses, one (1) Native American-owned business, six (6) non-Minority male-owned businesses, eight (8) Woman-owned businesses, and three (3) Hispanic American-owned businesses.

Both anecdotal interviews and focus groups participants were selected from a list of City of Cincinnati vendors. This vendor list was categorized by their ethnicities and later randomized. Recruitment for both interview and focus groups were conducted via telephone. 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.

In addition, GSPC circulated widely an Online Survey of Business Owners throughout the area asking for detailed information about demographics and previous or current experience working with the City. The Study team collected data from 287 respondents. Finally, the Study team conducted virtual interviews with representatives of four local community-based organizations to gain insight into how their respective members do business with Cincinnati.

By synthesizing and spotlighting specific themes expressed in these focus groups, interviews, surveys and public meetings, this analysis seeks to empower the City 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 MWBEs encounter doing business with the City. Those themes include Informal Networks, Excessive Paperwork During the Certification and Bidding Processes, Prompt Payment, Communication and Outreach, and Unfair Competition with Large Firms.

Key Themes from Anecdotal Data Analysis
Informal Networks
Excessive Paperwork During the Certification and Bidding Processes
Prompt Payment
Communication and Outreach
Unfair Competition with Large Firms

B. 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, perhaps, owing to 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 new firms from 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.

According to the GSPC Survey of Business Owners, 46.7% of 287 respondents said “yes” when asked if they believed that some form of an informal network monopolized public contracting with the City (See Table 1 below and Appendix N Survey of Business Owners: Table 110). Of that percentage, 60.3% of African American-owned businesses, 53.8% of Woman-owned businesses, and 34.4% of non-Minority-owned firms responded in the affirmative.

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Table 1. Do you believe there is an informal network of prime and Subcontractors doing business with City of Cincinnati that monopolizes the public contracting process?

Responses	<i>Owners' Minority Status</i>								Total
	Non-	Non-	African	Hispani	Asian	Bi-racial	Multi-	Publicly	
Yes	43	35	44	4	2	1	2	3	134
	34.4 %	53.8 %	60.3 %	80 %	33.3 %	50 %	66.7 %	37.5 %	46.7 %
No	82	30	29	1	4	1	1	5	153
	65.6 %	46.2 %	39.7 %	20 %	66.7 %	50 %	33.3 %	62.5 %	53.3 %
Total	125	65	73	5	6	2	3	8	287

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When asked if exclusion from a formal network prevented them from winning contracts with the City, 50.4% agreed to some extent (See Table 2 below and Appendix N Survey of Business Owners: Table 111), including 20.9% who strongly agree and 29.5% who agree. Of those in agreeance, 57.1% of non-Minority-owned firms and 50% of African American-owned firms held some level of agreement while 39.4% of Women-owned firms agreed to some extent.

Table 2. Please tell us if you strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree with each of the following statements: [My company's exclusion from this informal network has prevented us from winning contracts with City of Cincinnati.]

Responses	<i>Owners' Minority Status</i>								Total
	Non-	Non-	African	Hispanic	Asian	Bi-	Multi-	Publicly	
Strongly agree	9	5	10	1	1	1	0	0	27
	21.4 %	15.2 %	23.8 %	25 %	50 %	100 %	0 %	0 %	20.9 %
Agree	15	8	11	1	1	0	0	2	38
	35.7 %	24.2 %	26.2 %	25 %	50 %	0 %	0 %	66.7 %	29.5 %
Neither agree nor disagree	17	18	18	2	0	0	2	1	58
	40.5 %	54.5 %	42.9 %	50 %	0 %	0 %	100 %	33.3 %	45 %
Disagree	1	1	2	0	0	0	0	0	4
	2.4 %	3 %	4.8 %	0 %	0 %	0 %	0 %	0 %	3.1 %
Strongly disagree	0	1	1	0	0	0	0	0	2
	0 %	3 %	2.4 %	0 %	0 %	0 %	0 %	0 %	1.6 %
Total	42	33	42	4	2	1	2	3	129

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Study participants who attempted to do business with the City of Cincinnati said they believed that favoritism in the procurement process was systemic and often unavoidable. “Some proposals seem geared toward a specific vendor,” Woman-owned janitorial supply company AI-24 said. “We were getting overlooked for companies not even in our county. They were not even in our City and they were winning.” AI-4, an African American real estate consultant, African American-owned IT firm PM-21, and non-Minority energy consultant AI-27 also believe that Requests For Proposals (RFPs) are written to favor incumbent businesses. “It became so difficult and almost painfully evident that the way the RFP was written, it was geared towards re-extending the contract of the incumbent,” AI-27 said. Thus, AI-4 will no longer bid on projects for the City. “It always seems like the fix is in,” she said. “Don’t waste my time. That means the incumbent business does not have to compete”, PM-21 said. “I understand from time to time there are skills and abilities that are required. But as we all know there are also things that are put into these bids to ensure the incumbent wins,” he said.

The preferred network of businesses has been ingrained in the City’s procurement culture, and businesses both new and old contend, keeping those outside the network away from opportunities. Firms stated that they believe the practice is so pervasive that City employees can often anticipate the chances a would-be bidder will find success. “On one occasion, I talked to the individual in the (City) office, and they said, ‘Oh, we already knew (the incumbent) was going to get that business,’” FG-8, an African American consulting firm said. Woman-owned civil engineering firm AI-2 said that even the City’s efforts at inclusiveness have created exclusivity in procurement. “I am aware of projects where the inclusion is so extensive that only one firm is qualified for the contractor, and they mark their costs up really high because they know they’re the sole company that can provide this work,” she said.

While some business owners choose not to continue to bid on City of Cincinnati projects because of the perceived informal network advantage, others have determined to adopt the same tactics as those who benefit. AI-8, a Hispanic American logistics company has resolved that he cannot succeed. “People want to see someone that’s already been established,” he said. “So, it has been kind of difficult getting established because there are other people not wanting to give you that opportunity.” AI-15 and AI-17 admit that they have benefited by trying to fit into networks. “Because we’ve been doing it for so long, we have very good working relationships with them that we can go back,” said non-Minority-owned welding company AI-15. Woman-owned Construction firm AI-17 said being the lowest bidder did not always win her jobs. “All the work that I really get is mainly because of the relationship. It’s not because I’m out bidding like I used to in the beginning.” And firms are following the examples set by prime and Subcontractors that are part of informal networks. “To be frank, it’s a good old boy network,” Asian American civil engineering firm AI-5 said. “That’s just it and until you become a good old boy, it’s a little hard. I would be willing to grow new relationships and work with different companies.”

C. Excessive Paperwork During the Bidding and Certification Processes

Study participants raised concerns about the actual process of doing business with the City. While some business owners identified last-minute bid notifications, a cumbersome online system, little to no margin for error on bidding, and prequalification rules such as unnecessary fee evaluations and limits to inexperienced firms as barriers to doing business, a deluge of time-consuming bidding documentation emerged as a primary obstacle for many.

When asked what would prevent businesses from bidding on or obtaining work from the City of Cincinnati, more than 15% of the 287 Survey of Business Owners respondents or 44 business owners responded that it

was pre-qualification requirements (See Table 3 below and Appendix N Survey of Business Owners: Table 32). This included 28.4% African American-owned businesses, 30% of Hispanic American-owned firms, and 17% Woman-owned business respondents.

Table 3. The following is a list of things that may prevent companies from bidding or obtaining work on a project as a Prime Contractor or Subcontractor. In your experience, have any of the following been a barrier to your firm obtaining work on projects for City of Cincinnati? (Check all that apply) [Pre-qualification requirements]

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Non-Minority Woman	African American	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	107	56	64	3	4	2	2	5	243
	85.6 %	86.2 %	87.7 %	60 %	66.7 %	100 %	66.7 %	62.5 %	84.7 %
Selected	18	9	9	2	2	0	1	3	44
	14.4 %	13.8 %	12.3 %	40 %	33.3 %	0 %	33.3 %	37.5 %	15.3 %
Total	125	65	73	5	6	2	3	8	287

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Excessive paperwork was singled out as another barrier to doing business with the City, according to 17.1% of survey participants (See Table 4 below and Appendix N Survey of Business Owners: Table 34), including 19.2% of Non-Minority-owned firms, 15.4% of Woman-owned firms and 15.1% of African American, and 20% of Hispanic American-owned businesses.

Table 4. Volume of paperwork

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Non-Minority Woman	African American	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	101	55	62	4	5	2	3	6	238
	80.8 %	84.6 %	84.9 %	80 %	83.3 %	100 %	100 %	75 %	82.9 %
Selected	24	10	11	1	1	0	0	2	49
	19.2 %	15.4 %	15.1 %	20 %	16.7 %	0 %	0 %	25 %	17.1 %
Total	125	65	73	5	6	2	3	8	287

Griffin & Strong, P.C. 2022

More than half of the 287 firms polled (56.8%) indicated that they were not certified businesses (See Table 5 below and Appendix N Survey of Business Owners: Table 55). That includes 38.5% of Woman-owned businesses and 37% of African American-owned firms.

Table 5. Is your company a certified firm? (For example, Minority, Woman, EDGE, Disadvantaged, Small, SLBE or ELBE business)

Responses	Owners' Minority Status								Total
	Non-Minority	Non-Minority Woman	African American	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Yes	25	40	46	3	6	2	1	1	124
	20 %	61.5 %	63 %	60 %	100 %	100 %	33.3 %	12.5 %	43.2 %
No	100	25	27	2	0	0	2	7	163
	80 %	38.5 %	37 %	40 %	0 %	0 %	66.7 %	87.5 %	56.8 %
Total	125	65	73	5	6	2	3	8	287

Griffin & Strong, P.C. 2022

Of the 163 firms not certified with the City of Cincinnati, 18.3% said they either did not have time to become certified or that the certification process was too time-consuming (See Table 6 below and Appendix N, Survey of Business Owners: Table 67). 32% of Woman-owned firms and 22.2% of African American-owned firms were among the respondents to this part of the survey.

Table 6. I have not had time to get certified/the process is too time-consuming.

Responses	Owners' Minority Status								Total
	Non-	Non-	African	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly	
Not Selected	87	17	21	0	0	0	1	7	133
	87 %	68 %	77.8 %	0 %	0 %	0 %	50 %	100 %	81.6 %
Selected	13	8	6	2	0	0	1	0	30
	13 %	32 %	22.2 %	100 %	0 %	0 %	50 %	0 %	18.4 %
Total	100	25	27	2	0	0	2	7	163

Griffin & Strong, P.C. 2022

Business owners expressed some concern that bidding for public projects with the City required an extensive amount of work to meet the high qualifications set by procurement. For small firms with limited

staff and resources, that often sets a high, and in some cases insurmountable bar to reach. “If I evaluate the whole process at the end of the day, the (Return On Investment) wasn’t really there for the effort and time that you put in to respond,” African American real estate consultant AI-4 said. “The amount of work involved in it wasn’t worth the time.” Mostly, the complaint was about how much documentation was needed. “The process of bidding is very tedious,” African American-owned lobbying firm AI-26 said. “At the time when we first applied, we had to print out six copies of our proposal and deliver them by hand as well as submit a jump drive with the proposal on it.” The numerous pages involved demand a lot of time to manage, business owners AI-29 and AI-21 complained. “It’s so time-consuming because sometimes these plans are hundreds of pages, if not thousands, and (instructions) are not clearly outlined,” AI-29, an African American-owned landscape company said. Asian American-owned Construction firm AI-21 described dealing with the paperwork as chaotic. “So, I’m doing a lot of things for the subs, and then for the City, and then I’m going on a different program. I’m duplicating a lot of efforts. And sometimes the Section 3 paperwork all has to be notarized and they, the City has to have the original copies for all of our employees. There’s been multiple times I’ve dropped them off in the office and they have not gotten to where they need to go. So, then I’ve got to take the guys from the job site and take them somewhere else, so it pauses work, too.”

Bidding paperwork calls for fee determinations, which seem unneeded, and add to the work that must be done to submit for a project. “Fee estimates take a lot of unnecessary time since projects are awarded based on the most qualified not the lowest priced bidder,” AI-19, a Woman-owned environmental consulting business said. “So, they would save a lot of people a lot of time of having to develop a fee estimate that takes a lot of effort if they’re not going to pick those people. Because they don’t base the selection on price and the work that we do.” Prime contractor PM-10, a Non-Minority-owned engineering firm, said he encounters an even greater struggle when trying to align the complicated fee formula with percentages for MBE or WBE Subcontractor hires. “We just struggle sometimes finding competitive fee proposal types from other certified WBEs and MBEs,” he said. “It seems like when we do find those, at times their fees take us out of the competitive area because everything is even in Professional Services.”

There were, however, business owners who had good things to say about the City’s bidding process. AI-25, an Asian American-owned engineering firm said the paperwork was “easy” to complete. “I think the proposals were fine,” she said. “They weren’t too time-consuming, I think they asked for good information.” Non-Minority-owned industrial supply business AI-11 acknowledged that he initially had trouble with the bid process but eventually became acclimated. “After initially learning how to complete the bids, the paperwork is easy to complete,” he said. “So, I go to the important stuff, and I don’t have to read every page. I know which pages are the spec sheets and that just comes with time. You’ve got enough time to read. So, it’s not bad really. It’s pretty efficient. They send you the bid, they give you the specs, they give you the name of the person. If you have any questions, they give you plenty of lead time to formulate everything and get back to them.”

Certification takes equally as long, business owners say and, for some, is fruitless. “We have been a prime, but we have hardly had any business with the City in years,” Woman-owned technical training businesses FG-3 said. “We have found it’s very difficult. And every year we go through this whole process like we’re going through, becoming a WBE with the City which we have been all these years.” AI-30, an African American-owned landscaping company the “arduous process” of getting certified is a barrier to companies doing business with the City. “Other small business that want to do work with the City, they couldn’t even get through the paperwork to get certifications,” he said. “Getting registered for the certification, the process took us two to three months.” PM-2, an African American-owned communications firm, said certification questions asked for information that the state did not need. “It’s a bit invasive,” she said of the

certification process. “And to go through all of that every couple of years and getting no return from it. As a business, is it really worth it?”

D. Prompt Payment

Anecdotal data collected for the Study has shown that in some cases businesses working as Subcontractors waited more than 60, and sometimes up to 90 days, to be paid by a Prime Contractor. Prompt payment is often a point of contention because it can be the determining factor as to whether a firm can sustain itself or not.

Nearly half of those surveyed (46.3%) said that during the Study Period their Prime Contractor firm was paid by the City between 30 and 60 days from the time of invoice (See Table 6 below and Appendix N Survey of Business Owners: Table 53). More than 14% received payment after 60 days. That includes 8.9% who were paid between 61 and 90 days, 3.3% paid between 91 and 120 days, and 2.4% paid later than 120 days.

Table 7. As a Prime Contractor, what is the amount of time from the date you submit your approved invoice to the City it typically takes to receive payment from the City for your services on City of Cincinnati projects?

Responses	Owners' Minority Status								Total
	Non-Minority	Non-Minority Woman	African American	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Less than 30 days	7	2	1	0	1	0	0	0	11
	10.9 %	6.9 %	5.6 %	0 %	20 %	0 %	0 %	0 %	8.9 %
30-60 days	36	9	7	1	2	0	0	2	57
	56.2 %	31 %	38.9 %	50 %	40 %	0 %	0 %	40 %	46.3 %
61-90 days	4	2	3	0	1	0	0	1	11
	6.2 %	6.9 %	16.7 %	0 %	20 %	0 %	0 %	20 %	8.9 %
91-120 days	1	2	0	0	1	0	0	0	4
	1.6 %	6.9 %	0 %	0 %	20 %	0 %	0 %	0 %	3.3 %
Over 120 days	1	2	0	0	0	0	0	0	3
	1.6 %	6.9 %	0 %	0 %	0 %	0 %	0 %	0 %	2.4 %
Don't Know/NA	15	12	7	1	0	0	0	2	37
	23.4 %	41.4 %	38.9 %	50 %	0 %	0 %	0 %	40 %	30.1 %
Total	64	29	18	2	5	0	0	5	123

Griffin & Strong, P.C. 2022

More than 37% of those surveyed (37.3%) said that during the Study Period their firm was paid by a Prime Contractor between 30 and 60 days from the time of invoice (See Table 7 below and Appendix N Survey of Business Owners: Table 54). More than 28% d – received payment after 60 days. That includes 16.7% who were paid between 61 and 90 days, 8.8% paid between 91 and 120 days, and 2.9% paid later than 120 days.

Table 8. As a Subcontractor, what is the amount of time from the date you submit your approved invoice to the Prime Contractor (or higher-tier Subcontractor) it typically takes to receive payment from the Prime Contractor (or higher-tier Subcontractor)?

Responses	Owners' Minority Status								Total
	Non-Minority	Non-Minority Woman	African American	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Less than 30 days	5	3	7	0	0	0	0	0	15
	9.3 %	15 %	33.3 %	0 %	0 %	0 %	0 %	0 %	14.7 %
30-60 days	23	7	6	0	1	0	0	1	38
	42.6 %	35 %	28.6 %	0 %	50 %	0 %	0 %	25 %	37.3 %
61-90 days	9	3	3	0	0	0	1	1	17
	16.7 %	15 %	14.3 %	0 %	0 %	0 %	100 %	25 %	16.7 %
91-120 days	4	2	2	0	1	0	0	0	9
	7.4 %	10 %	9.5 %	0 %	50 %	0 %	0 %	0 %	8.8 %
Over 120 days	2	1	0	0	0	0	0	0	3
	3.7 %	5 %	0 %	0 %	0 %	0 %	0 %	0 %	2.9 %
Don't Know/NA	11	4	3	0	0	0	0	2	20
	20.4 %	20 %	14.3 %	0 %	0 %	0 %	0 %	50 %	19.6 %
Total	54	20	21	0	2	0	1	4	102

Griffin & Strong, P.C. 2022

While many firms said that payment came in a timely manner, Hispanic American-owned energy firm AI-30 noted a difference between working with large corporations and smaller Prime Contractors “My mentor told me not to contract with large companies, and I don’t because often they don’t pay you until after like 60 days, 90 days; and they use your money,” she said. “But when you deal with smaller contractors that are local, there’s more trust, they pay us a little bit later but like 90 days or 60 days. They pay after a couple weeks. I can manage that.”

Asian American-owned computer firm FG-1 said he was often paid late by Prime Contractors when he worked as a Subcontractor. “Payment timelines are 60 to 90 days and beyond,” he said. AI-22, an African American-owned computer software company, also said she did not receive timely payments from the Prime Contractor she subbed for. “When we do the work directly for the City, the turnaround time on payment is instant,” she said. “I mean, a week or two, and you’re paid. There’s no issue there whatsoever.

Non-Minority-owned commercial property management firm AI-6 said prompt pay helps with morale and keeps everyone on the team happy. “And I think, when we talk about payment, we also have to talk about respect, and being as concerned about someone else’s living as we would like them to be concerned about our living, it’s a good thing,” he said. “And honestly, it lowers tensions. It fosters cooperation, increases communication, everything goes a lot smoother.”

E. Communication and Outreach

The anecdotal data collected during the Study identified the theme of Communication and Outreach. Business owners engaged with the Study team on various platforms and identified concerns about challenges with the City’s procurement website, insufficient and unclear notifications about opportunities, inadequate feedback, and a need for more training. Just as some had complaints, there were other business owners who offered praise for the City’s efforts.

In the Survey of Business Owners completed by 287 respondents, 10.5% or those queried answered “No” when asked “Is your company currently registered to do business with the City of Cincinnati?” (See Table 8 below and Appendix N, Survey of Business Owners: Table 15). Responding in the affirmative were 66.6% with 23% unsure of the answer.

Table 9. Is your company currently registered to do business with the City of Cincinnati?									
	Owners' Minority Status								
Responses	Non-	Non-	African	Hispanic	Asian	Bi-racial	Multi-	Publicly	Total
Yes	89	40	46	3	5	2	0	6	191
	71.2 %	61.5 %	63 %	60 %	83.3 %	100 %	0 %	75 %	66.6 %
No	10	9	9	1	0	0	0	1	30
	8 %	13.8 %	12.3 %	20 %	0 %	0 %	0 %	12.5 %	10.5 %
Not sure	26	16	18	1	1	0	3	1	66
	20.8 %	24.6 %	24.7 %	20 %	16.7 %	0 %	100 %	12.5 %	23 %
Total	125	65	73	5	6	2	3	8	287

Griffin & Strong, P.C. 2022

In response to the survey question, “Why is your company not registered to do business with the City of Cincinnati?” 23.3% of the business owners who identified themselves as not being registered indicated that they did not know how to register (See Table 9 below and Appendix N Survey of Business Owners: Table

17). But 16.7% of those who acknowledged that they were not registered said they did not know there was a registry (See Table 10 below and Appendix N Survey of Business Owners: Table 18).

Table 10. Why is your company not registered to do business with the City of Cincinnati? Indicate all that apply. [I do not know how to register]

	<i>Owners' Minority Status</i>								
Responses	Non-	Non-	African	Hispanic	Asian	Bi-racial	Multi-	Publicly	Total
Not Selected	7	9	7	0	0	0	0	0	23
	70 %	100 %	77.8 %	0 %	0 %	0 %	0 %	0 %	76.7 %
Selected	3	0	2	1	0	0	0	1	7
	30 %	0 %	22.2 %	100 %	0 %	0 %	0 %	100 %	23.3 %
Total	10	9	9	1	0	0	0	1	30

Griffin & Strong, P.C. 2022

Table 11. I did not know there was a registry.

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Non-Minority Women	African American	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	Total
Not Selected	9	7	7	1	0	0	0	1	25
	90 %	77.8 %	77.8 %	100 %	0 %	0 %	0 %	100 %	83.3 %
Selected	1	2	2	0	0	0	0	0	5
	10 %	22.2 %	22.2 %	0 %	0 %	0 %	0 %	0 %	16.7 %
Total	10	9	9	1	0	0	0	1	30

Griffin & Strong, P.C. 2022

Business owners said they needed more information about how to find opportunities with the City and the best way to take advantage of those opportunities. “For me it's difficult to navigate what opportunities there would be for someone like me where I don't have a staff or I'm just a single operation person,” said PM-14, a Woman-owned business consulting firm said. Woman-owned corporate training company FG-3 expressed the same sentiment. “What I would love some help with is navigating getting connections,” she said. AI-9, a Hispanic American-owned industrial cleaning service, said having better contacts to City officials would help her to build up her business clientele. “I’m trying to get the business certified as Woman-owned and as a small business and as a Hispanic American-owned business,” she said. “Women

can help me understand the steps to get where I want to be.” OI-1, an industry-based organization, said that outreach from the City, “does not happen at all. If we know about opportunities, we will share it with our members, but we do not get any communications.”

Those looking to work with the City say there could be better information available on the Internet for would-be bidders. “How can opportunities better be located on the website?” a Woman-owned communication and marketing firm asked. “The biggest thing is figuring out where the RFP is on the website.” Hispanic American-owned logistics business AI-8 suggested trying to fashion City of Cincinnati’s procurement website Bonfire after the State of Ohio’s job site. “I’m sure the opportunities are out there,” he said. “I guess I just haven’t stumbled onto them and stuff like that. I’d like to maybe see a website saying, ‘The City of Cincinnati, this is where you can go if you’re a business.’ I guess it’s something similar to the Ohio Buys websites where you can just kind of break it down by City.”

Some business owners complained that they did not receive opportunity notifications or feedback, while others said the coding for different opportunities were difficult to decipher. At the beginning of the coronavirus pandemic, Woman-owned healthcare business FG-15 said she was manufacturing personal protective equipment and was poised to sell it to the City, which she understood was in need. “I was one of the only companies in the City, probably the only company that had it, that had access to it that was not price gouging that could deliver,” she said. “I was an approved supplier of other states. served their communities but not my own. No one would call me back.” African American-owned lobbying firm AI-26 said there needs to be the correct codes in the system to match the job descriptions and industries: “Prime contractors are looking at specific codes when choosing a Subcontractor,” she said.

AI-19, a Woman-owned environmental consulting firm, is among those business owners who believe the City does a good job of keeping potential partners updated on opportunities. She said, “Cincinnati has a good structure for distributing their RFP’s. The City of Cincinnati will either put out the notice and we’ll get an email notice that stuff gets posted. We can talk to the engineers that are in the area and say, ‘Are you going to need help with the environmental studies for this project?’ Then they know they’ll put us on the team.” Asian American-owned Construction company AI-21 said community involvement is a key to helping prepare and train employees. “I feel like the City has stepped up with getting the community involvement and hiring so that we can hire some laborers with a little bit of experience within the areas,” she said. African American-owned community organization lauded the City’s assistance. “Whenever I had a question or whenever I was unclear on anything, they were just able to give that immediate answer,” he said.

F. Communication and Outreach

Some firms identified problems competing against larger firms, citing either inability to allocate resources for the bidding process or a perception of bidding rules that precluded new businesses from entering competition in a given industry. Asked what things prevented companies from bidding on or obtaining work on a project as a Prime Contractor or Subcontractor in the Survey of Business Owners, unfair competition with large firms was identified as a reason.

Of the 287 survey respondents, 15.7% of respondents pointed to unfair competition with large firms (See Table 12 below and Appendix N Survey of Business Owners: Table 49). That includes 24.6% of the Women-owned businesses that responded and 20.5% of the African American-owned firms polled.

Table 12. Unfair competition with large firms

Responses	Owners' Minority Status								Total
	Non-Minority	Non-Minority Woman	African American	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Not Selected	116	49	58	3	4	2	2	8	242
	92.8 %	75.4 %	79.5 %	60 %	66.7 %	100 %	66.7 %	100 %	84.3 %
Selected	9	16	15	2	2	0	1	0	45
	7.2 %	24.6 %	20.5 %	40 %	33.3 %	0 %	33.3 %	0 %	15.7 %
Total	125	65	73	5	6	2	3	8	287

Griffin & Strong, P.C. 2022

Business owners expressed frustration with what appeared to be a chosen class of often larger, well-established Prime Contractors and Subcontractors who consistently won bids for projects with the City of Cincinnati. “All of the giant contractors got control one way or another,” African American-owned consulting firm PM-7 said. AI-18, an African American-owned business services provider, said he will typically be overlooked for one of the City’s “preferred” Subcontractors. “I think that they have been around so long that they’re the ones who they turn to first,” he said. Asian American civil engineering firm AI-5 said she is locked out of all but a small portion of the work available. “We probably do about 2.5% of the work, and the remaining portion, two firms probably do about 60-70% total together,” AI-5 said. “Domination by two firms for years is a little frustrating.”

Still other business owners described rules that forced fledgling businesses out of competition for project bids with by either not accounting for the experience of the owners and staff or making the lack of experience with the City a barrier to doing business. PM-19, an African American-owned environmental remediation firm, submitted a bid for a multi-award contract and was not among the top four firms competing. In a subsequent debriefing, PM-19 said he was told he did not have sufficient capacity to working for the City. “If it’s your first time applying, you will never get there,” he said he was told. When he inquired about how to gain the necessary experience, PM-19 said City officials told him he had to “work with one of the companies that just won the multi- award contracts.” Those companies would not be likely to take his firm on, he said. “It’s not in their best interest. Because if they include you, you now have experience and you’re now a competitor,” he said. African American-owned IT firm PM-21 identified another experiential prerequisite he said seemed exclusionary: “The years of experience one must have, in some cases is extraordinary,” PM-21 said. “Because it could be an engineer who’s worked for a major corporation for the last 15 years that then comes out and starts their own company. Then they have 15 excessive years of experience, but their business only has eight years of experience. Now, which is really going to do the work? The company or the individuals that make up the company?”

G. Conclusion

The Study found anecdotal evidence that informal networks may be precluding business owners from working with the City and have kept some firms from bidding because they may not believe they can win. Other businesses believe that they should try to find ways to join the informal networks. Study findings also identified business owners' concerns about not being able to compete with large firms.

The Study showed evidence that the entrenched informal network excluded newcomers, small businesses, start-up enterprises, and Women and Minority-owned businesses, often creating a sense that the City of Cincinnati is a difficult market to break into for those not already doing business there. Study participants identified a need for more oversight to ensure that informal networks are not permitted.

Anecdotal evidence found that outreach and communication needed improvement and was a barrier to doing business with the City. Specifically, firms cited a lack of communicating bid opportunities and a need to improve the procurement website; perhaps using the State procurement site as a model.

Some business owners expressed concerns that the certification and procurement processes involved excessive and tedious paperwork, causing would-be bid candidates for City projects to refrain from pursuing opportunities. Study participants described recertification as a lengthy process that rehashed information already filed with the City. Further, participants pointed to bid notifications that were often released after it was too late for smaller firms (without dedicated bidding staff) to have time to respond.

APPENDIX A

**City of Cincinnati 2022 Disparity Study
Prime Data Procurement in the Relevant Market by
Counties and States**

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

**Table A-1
City of Cincinnati Disparity Study
List of Counties and States in the Prime Data
Construction**

County, State	Amount	Percent	Cumulative Percent
HAMILTON COUNTY, OH	\$ 367,436,612	81.41%	81.41%
BUTLER COUNTY, OH	\$ 23,414,902	5.19%	86.59%
STARK COUNTY, OH	\$ 10,285,307	2.28%	88.87%
FRANKLIN COUNTY, OH	\$ 9,099,330	2.02%	90.89%
MADISON COUNTY, OH	\$ 2,840,546	0.63%	91.52%
HURON COUNTY, OH	\$ 2,402,636	0.53%	92.05%
CLERMONT COUNTY, OH	\$ 666,080	0.15%	92.20%
WARREN COUNTY, OH	\$ 484,456	0.11%	92.31%
MONTGOMERY COUNTY, OH	\$ 471,639	0.10%	92.41%
CUYAHOGA COUNTY, OH	\$ 407,909	0.09%	92.50%
BROWN COUNTY, OH	\$ 325,101	0.07%	92.57%
WASHINGTON COUNTY, OH	\$ 292,141	0.06%	92.64%
LUCAS COUNTY, OH	\$ 44,302	0.01%	92.65%
MIAMI COUNTY, OH	\$ 18,830	0.00%	92.65%
FAIRFIELD COUNTY, OH	\$ 9,550	0.00%	92.65%
HIGHLAND COUNTY, OH	\$ 5,131	0.00%	92.65%
MEDINA COUNTY, OH	\$ 1,990	0.00%	92.66%
DELAWARE COUNTY, OH	\$ 1,966	0.00%	92.66%
CHEMUNG COUNTY, NY	\$ 12,162,395	2.69%	95.35%
BOONE COUNTY, KY	\$ 11,291,474	2.50%	97.85%
MARION COUNTY, IN	\$ 4,950,000	1.10%	98.95%
GRANT COUNTY, KY	\$ 1,692,663	0.38%	99.32%
CHAUTAUQUA COUNTY, NY	\$ 1,123,878	0.25%	99.57%
CAMPBELL COUNTY, KY	\$ 847,059	0.19%	99.76%
KENTON COUNTY, KY	\$ 461,143	0.10%	99.86%
COLLIN COUNTY, TX	\$ 239,004	0.05%	99.92%
PENDLETON COUNTY, KY	\$ 214,731	0.05%	99.96%
BALTIMORE CITY COUNTY, MD	\$ 60,938	0.01%	99.98%
CHEROKEE COUNTY, GA	\$ 51,980	0.01%	99.99%
GREGG COUNTY, TX	\$ 29,904	0.01%	99.99%
OLDHAM COUNTY, KY	\$ 18,375	0.00%	100.00%
CHESTERFIELD COUNTY, VA	\$ 5,948	0.00%	100.00%
Total	\$ 451,357,920	100.00%	

Table A-2
City of Cincinnati Disparity Study
List of Counties and States in the Prime Data
Architectural & Engineering

County, State	Amount	Percent	Cumulative Percent
HAMILTON COUNTY, OH	\$ 15,587,927	80.87%	80.87%
FRANKLIN COUNTY, OH	\$ 563,489	2.92%	83.80%
WARREN COUNTY, OH	\$ 266,065	1.38%	85.18%
CLERMONT COUNTY, OH	\$ 127,193	0.66%	85.84%
MONTGOMERY COUNTY, OH	\$ 99,197	0.51%	86.35%
BUTLER COUNTY, OH	\$ 25,596	0.13%	86.48%
FAYETTE COUNTY, KY	\$ 1,014,956	5.27%	91.75%
HARTFORD COUNTY, CT	\$ 481,015	2.50%	94.25%
MIDDLESEX COUNTY, MA	\$ 344,633	1.79%	96.03%
NEWPORT NEWS CITY COUNTY, VA	\$ 302,154	1.57%	97.60%
MARION COUNTY, IN	\$ 227,042	1.18%	98.78%
JEFFERSON COUNTY, KY	\$ 159,957	0.83%	99.61%
SUFFOLK COUNTY, MA	\$ 66,381	0.34%	99.95%
FAIRFAX COUNTY, VA	\$ 5,525	0.03%	99.98%
CAMPBELL COUNTY, KY	\$ 3,530	0.02%	100.00%
Total	\$ 19,274,662	100.00%	

Table A-3
City of Cincinnati Disparity Study
List of Counties and States in the Prime Data
Professional Services

County, State	Amount	Percent	Cumulative Percent
HAMILTON COUNTY, OH	\$ 58,691,403	84.31%	84.31%
CLERMONT COUNTY, OH	\$ 755,967	1.09%	85.39%
MONTGOMERY COUNTY, OH	\$ 397,845	0.57%	85.96%
CUYAHOGA COUNTY, OH	\$ 363,761	0.52%	86.49%
BUTLER COUNTY, OH	\$ 363,236	0.52%	87.01%
WARREN COUNTY, OH	\$ 257,691	0.37%	87.38%
ALLEN COUNTY, OH	\$ 179,718	0.26%	87.64%
FRANKLIN COUNTY, OH	\$ 171,857	0.25%	87.88%
LAKE COUNTY, OH	\$ 137,369	0.20%	88.08%
WOOD COUNTY, OH	\$ 89,327	0.13%	88.21%
MEDINA COUNTY, OH	\$ 17,000	0.02%	88.23%
MAHONING COUNTY, OH	\$ 9,086	0.01%	88.25%
SUMMIT COUNTY, OH	\$ 8,579	0.01%	88.26%
FAIRFIELD COUNTY, OH	\$ 3,600	0.01%	88.26%
BROWN COUNTY, OH	\$ 2,600	0.00%	88.27%
WASHINGTON COUNTY, OH	\$ 1,290	0.00%	88.27%
LORAIN COUNTY, OH	\$ 720	0.00%	88.27%
LUCAS COUNTY, OH	\$ 350	0.00%	88.27%
ERIE COUNTY, OH	\$ 159	0.00%	88.27%
KENTON COUNTY, KY	\$ 1,570,816	2.26%	90.53%
MARICOPA COUNTY, AZ	\$ 550,649	0.79%	91.32%
PHILADELPHIA COUNTY, PA	\$ 490,632	0.70%	92.02%
RICHMOND CITY COUNTY, VA	\$ 461,687	0.66%	92.69%
BOONE COUNTY, KY	\$ 403,591	0.58%	93.27%
NEW YORK COUNTY, NY	\$ 363,122	0.52%	93.79%
WAYNE COUNTY, MI	\$ 314,808	0.45%	94.24%
LANCASTER COUNTY, NE	\$ 314,610	0.45%	94.69%
RAMSEY COUNTY, MN	\$ 310,172	0.45%	95.14%
LOS ANGELES COUNTY, CA	\$ 273,210	0.39%	95.53%
MECKLENBURG COUNTY, NC	\$ 264,192	0.38%	95.91%
ALLEGHENY COUNTY, PA	\$ 258,521	0.37%	96.28%
FULTON COUNTY, GA	\$ 235,795	0.34%	96.62%
CENTRE COUNTY, PA	\$ 222,125	0.32%	96.94%
SNOHOMISH COUNTY, WA	\$ 209,703	0.30%	97.24%
CAMPBELL COUNTY, KY	\$ 186,265	0.27%	97.51%
UTAH COUNTY, UT	\$ 166,988	0.24%	97.75%
PLACER COUNTY, CA	\$ 162,940	0.23%	97.98%
SAINT LOUIS COUNTY, MO	\$ 160,650	0.23%	98.21%
SALT LAKE COUNTY, UT	\$ 146,293	0.21%	98.42%
MARION COUNTY, IN	\$ 125,648	0.18%	98.60%
DENVER COUNTY, CO	\$ 124,795	0.18%	98.78%
DISTRICT OF COLUMBIA COUNTY, DC	\$ 83,180	0.12%	98.90%
WILLIAMSON COUNTY, TN	\$ 61,500	0.09%	98.99%
COOK COUNTY, IL	\$ 61,489	0.09%	99.08%
CHITTENDEN COUNTY, VT	\$ 61,093	0.09%	99.17%

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

HOWARD COUNTY, MD	\$ 58,753	0.08%	99.25%
MORRIS COUNTY, NJ	\$ 54,054	0.08%	99.33%
PINELLAS COUNTY, FL	\$ 52,328	0.08%	99.40%
JOHNSON COUNTY, KS	\$ 51,221	0.07%	99.48%
DAVIDSON COUNTY, TN	\$ 45,000	0.06%	99.54%
JEFFERSON COUNTY, KY	\$ 42,073	0.06%	99.60%
FORSYTH COUNTY, NC	\$ 35,870	0.05%	99.65%
BULLOCH COUNTY, GA	\$ 35,000	0.05%	99.70%
LOUDOUN COUNTY, VA	\$ 30,068	0.04%	99.75%
SACRAMENTO COUNTY, CA	\$ 28,995	0.04%	99.79%
ARLINGTON COUNTY, VA	\$ 28,103	0.04%	99.83%
OAKLAND COUNTY, MI	\$ 27,225	0.04%	99.87%
MULTNOMAH COUNTY, OR	\$ 10,820	0.02%	99.88%
COLLIN COUNTY, TX	\$ 10,000	0.01%	99.90%
DENTON COUNTY, TX	\$ 9,990	0.01%	99.91%
MIDDLESEX COUNTY, MA	\$ 8,954	0.01%	99.93%
HARRIS COUNTY, TX	\$ 8,400	0.01%	99.94%
RICHLAND COUNTY, ND	\$ 7,750	0.01%	99.95%
VOLUSIA COUNTY, FL	\$ 4,672	0.01%	99.96%
JEFFERSON COUNTY, CO	\$ 3,495	0.01%	99.96%
YANCEY COUNTY, NC	\$ 3,230	0.00%	99.97%
DESOTO COUNTY, MS	\$ 2,900	0.00%	99.97%
CHAMPAIGN COUNTY, IL	\$ 2,418	0.00%	99.97%
DUPAGE COUNTY, IL	\$ 2,320	0.00%	99.98%
WAKE COUNTY, NC	\$ 2,285	0.00%	99.98%
LAUDERDALE COUNTY, MS	\$ 2,000	0.00%	99.98%
HARTFORD COUNTY, CT	\$ 1,705	0.00%	99.98%
DALLAS COUNTY, TX	\$ 1,574	0.00%	99.99%
SANTA CRUZ COUNTY, CA	\$ 1,500	0.00%	99.99%
PITT COUNTY, NC	\$ 1,400	0.00%	99.99%
BALTIMORE CITY COUNTY, MD	\$ 1,170	0.00%	99.99%
PALM BEACH COUNTY, FL	\$ 869	0.00%	99.99%
IREDELL COUNTY, NC	\$ 799	0.00%	100.00%
THURSTON COUNTY, WA	\$ 750	0.00%	100.00%
DURHAM COUNTY, NC	\$ 644	0.00%	100.00%
SARPY COUNTY, NE	\$ 575	0.00%	100.00%
SANTA CLARA COUNTY, CA	\$ 357	0.00%	100.00%
CLARK COUNTY, NV	\$ 245	0.00%	100.00%
HENNEPIN COUNTY, MN	\$ 213	0.00%	100.00%
FAYETTE COUNTY, KY	\$ 175	0.00%	100.00%
COMAL COUNTY, TX	\$ 150	0.00%	100.00%
PIERCE COUNTY, WA	\$ 55	0.00%	100.00%
EAU CLAIRE COUNTY, WI	\$ 51	0.00%	100.00%
Total	\$ 69,616,186	100.00%	

Table A-4
City of Cincinnati Disparity Study
List of Counties and States in the Prime Data
Other Services

County, State	Amount	Percent	Cumulative Percent
HAMILTON COUNTY, OH	\$ 212,497,005	81.79%	81.79%
BUTLER COUNTY, OH	\$ 3,438,802	1.32%	83.11%
MONTGOMERY COUNTY, OH	\$ 3,000,428	1.15%	84.27%
FRANKLIN COUNTY, OH	\$ 2,017,360	0.78%	85.04%
CLERMONT COUNTY, OH	\$ 1,137,811	0.44%	85.48%
WARREN COUNTY, OH	\$ 566,333	0.22%	85.70%
CUYAHOGA COUNTY, OH	\$ 550,388	0.21%	85.91%
ASHTABULA COUNTY, OH	\$ 536,828	0.21%	86.12%
LAKE COUNTY, OH	\$ 502,600	0.19%	86.31%
HIGHLAND COUNTY, OH	\$ 424,385	0.16%	86.47%
STARK COUNTY, OH	\$ 171,876	0.07%	86.54%
DELAWARE COUNTY, OH	\$ 171,789	0.07%	86.60%
PORTAGE COUNTY, OH	\$ 164,209	0.06%	86.67%
MARION COUNTY, OH	\$ 31,337	0.01%	86.68%
ATHENS COUNTY, OH	\$ 26,404	0.01%	86.69%
MAHONING COUNTY, OH	\$ 17,137	0.01%	86.70%
CLINTON COUNTY, OH	\$ 15,100	0.01%	86.70%
LUCAS COUNTY, OH	\$ 14,311	0.01%	86.71%
MADISON COUNTY, OH	\$ 14,238	0.01%	86.71%
SUMMIT COUNTY, OH	\$ 12,494	0.00%	86.72%
LAWRENCE COUNTY, OH	\$ 11,199	0.00%	86.72%
ALLEN COUNTY, OH	\$ 6,993	0.00%	86.73%
FAIRFIELD COUNTY, OH	\$ 4,950	0.00%	86.73%
CLARK COUNTY, OH	\$ 2,400	0.00%	86.73%
GREENE COUNTY, OH	\$ 1,848	0.00%	86.73%
MIAMI COUNTY, OH	\$ 846	0.00%	86.73%
ERIE COUNTY, OH	\$ 710	0.00%	86.73%
WAYNE COUNTY, OH	\$ 595	0.00%	86.73%
PICKAWAY COUNTY, OH	\$ 102	0.00%	86.73%
DALLAS COUNTY, TX	\$ 4,221,851	1.62%	88.35%
COOK COUNTY, IL	\$ 3,993,408	1.54%	89.89%
KENTON COUNTY, KY	\$ 2,430,828	0.94%	90.83%
OAKLAND COUNTY, MI	\$ 1,571,971	0.61%	91.43%
MECKLENBURG COUNTY, NC	\$ 1,568,317	0.60%	92.04%
KENT COUNTY, MI	\$ 1,204,571	0.46%	92.50%
FAIRFAX COUNTY, VA	\$ 1,014,789	0.39%	92.89%
BOONE COUNTY, KY	\$ 1,001,996	0.39%	93.28%
MORRIS COUNTY, NJ	\$ 998,200	0.38%	93.66%
MARION COUNTY, IN	\$ 995,178	0.38%	94.04%
LOS ANGELES COUNTY, CA	\$ 900,727	0.35%	94.39%
DELAWARE COUNTY, PA	\$ 807,736	0.31%	94.70%
JOHNSON COUNTY, KS	\$ 756,174	0.29%	94.99%
VIRGINIA BEACH CITY COUNTY, VA	\$ 710,159	0.27%	95.27%
JEFFERSON COUNTY, KY	\$ 682,393	0.26%	95.53%
FULTON COUNTY, GA	\$ 677,003	0.26%	95.79%

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

MIDDLESEX COUNTY, MA	\$ 645,737	0.25%	96.04%
FORSYTH COUNTY, NC	\$ 572,980	0.22%	96.26%
CAMPBELL COUNTY, KY	\$ 532,150	0.20%	96.46%
SKAGIT COUNTY, WA	\$ 501,939	0.19%	96.66%
MARICOPA COUNTY, AZ	\$ 412,570	0.16%	96.81%
BRISTOL COUNTY, MA	\$ 397,888	0.15%	96.97%
SAN FRANCISCO COUNTY, CA	\$ 392,692	0.15%	97.12%
CHAUTAUQUA COUNTY, NY	\$ 374,603	0.14%	97.26%
DUPAGE COUNTY, IL	\$ 336,594	0.13%	97.39%
YORK COUNTY, SC	\$ 334,658	0.13%	97.52%
MONTGOMERY COUNTY, AL	\$ 286,235	0.11%	97.63%
LANCASTER COUNTY, NE	\$ 269,935	0.10%	97.74%
SAN DIEGO COUNTY, CA	\$ 267,344	0.10%	97.84%
DUVAL COUNTY, FL	\$ 266,347	0.10%	97.94%
WAUKESHA COUNTY, WI	\$ 264,484	0.10%	98.04%
SACRAMENTO COUNTY, CA	\$ 259,514	0.10%	98.14%
SAINT LOUIS CITY COUNTY, MO	\$ 257,329	0.10%	98.24%
CUMBERLAND COUNTY, ME	\$ 254,832	0.10%	98.34%
SANTA CLARA COUNTY, CA	\$ 248,293	0.10%	98.43%
SPARTANBURG COUNTY, SC	\$ 204,627	0.08%	98.51%
DENTON COUNTY, TX	\$ 195,231	0.08%	98.59%
RAMSEY COUNTY, MN	\$ 188,228	0.07%	98.66%
MILWAUKEE COUNTY, WI	\$ 175,670	0.07%	98.73%
NEW HAVEN COUNTY, CT	\$ 170,109	0.07%	98.79%
POLK COUNTY, IA	\$ 165,994	0.06%	98.86%
NORFOLK COUNTY, MA	\$ 164,617	0.06%	98.92%
HILLSBOROUGH COUNTY, FL	\$ 154,624	0.06%	98.98%
DENVER COUNTY, CO	\$ 146,033	0.06%	99.04%
WELD COUNTY, CO	\$ 139,054	0.05%	99.09%
CALHOUN COUNTY, MI	\$ 118,966	0.05%	99.14%
FAYETTE COUNTY, KY	\$ 117,876	0.05%	99.18%
KING COUNTY, WA	\$ 115,383	0.04%	99.23%
OCEAN COUNTY, NJ	\$ 115,145	0.04%	99.27%
LOUDOUN COUNTY, VA	\$ 88,782	0.03%	99.30%
ALLEGHENY COUNTY, PA	\$ 86,632	0.03%	99.34%
JEFFERSON COUNTY, CO	\$ 79,238	0.03%	99.37%
MANATEE COUNTY, FL	\$ 71,453	0.03%	99.40%
CHESTER COUNTY, PA	\$ 70,637	0.03%	99.42%
SEMINOLE COUNTY, FL	\$ 67,533	0.03%	99.45%
MONROE COUNTY, MI	\$ 61,478	0.02%	99.47%
ONTARIO COUNTY, NY	\$ 59,888	0.02%	99.50%
HENNEPIN COUNTY, MN	\$ 56,917	0.02%	99.52%
MONROE COUNTY, NY	\$ 56,106	0.02%	99.54%
CARVER COUNTY, MN	\$ 53,669	0.02%	99.56%
WASHTENAW COUNTY, MI	\$ 50,064	0.02%	99.58%
ARLINGTON COUNTY, VA	\$ 48,840	0.02%	99.60%
MONROE COUNTY, IN	\$ 48,831	0.02%	99.62%
MULTNOMAH COUNTY, OR	\$ 47,469	0.02%	99.64%
INGHAM COUNTY, MI	\$ 45,291	0.02%	99.65%
MONTGOMERY COUNTY, PA	\$ 40,840	0.02%	99.67%
KITSAP COUNTY, WA	\$ 38,550	0.01%	99.68%
MONTGOMERY COUNTY, MD	\$ 36,095	0.01%	99.70%
MIAMI-DADE COUNTY, FL	\$ 32,412	0.01%	99.71%
FRANKLIN COUNTY, VA	\$ 32,250	0.01%	99.72%
WASHINGTON COUNTY, MN	\$ 32,235	0.01%	99.73%
TRAVIS COUNTY, TX	\$ 30,593	0.01%	99.75%
DAVIDSON COUNTY, TN	\$ 27,344	0.01%	99.76%

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

CONTRA COSTA COUNTY, CA	\$ 26,880	0.01%	99.77%
ORANGE COUNTY, FL	\$ 25,265	0.01%	99.78%
ARAPAHOE COUNTY, CO	\$ 25,175	0.01%	99.79%
SAN MATEO COUNTY, CA	\$ 23,933	0.01%	99.80%
PULASKI COUNTY, AR	\$ 22,823	0.01%	99.80%
RIVERSIDE COUNTY, CA	\$ 21,025	0.01%	99.81%
KENNEBEC COUNTY, ME	\$ 19,039	0.01%	99.82%
BALTIMORE COUNTY, MD	\$ 18,272	0.01%	99.83%
ADA COUNTY, ID	\$ 17,290	0.01%	99.83%
SOMERSET COUNTY, NJ	\$ 15,767	0.01%	99.84%
PINELLAS COUNTY, FL	\$ 15,075	0.01%	99.85%
RICHMOND CITY COUNTY, VA	\$ 14,547	0.01%	99.85%
ORANGE COUNTY, CA	\$ 14,477	0.01%	99.86%
HAMILTON COUNTY, IN	\$ 14,379	0.01%	99.86%
OHIO COUNTY, WV	\$ 13,823	0.01%	99.87%
SEDGWICK COUNTY, KS	\$ 12,604	0.00%	99.87%
BROWARD COUNTY, FL	\$ 12,488	0.00%	99.88%
DISTRICT OF COLUMBIA COUNTY, DC	\$ 12,000	0.00%	99.88%
SPOKANE COUNTY, WA	\$ 11,570	0.00%	99.89%
KANE COUNTY, IL	\$ 11,213	0.00%	99.89%
VENTURA COUNTY, CA	\$ 10,185	0.00%	99.89%
BENTON COUNTY, AR	\$ 9,998	0.00%	99.90%
DANE COUNTY, WI	\$ 9,899	0.00%	99.90%
MADISON COUNTY, IN	\$ 9,835	0.00%	99.91%
DAVIESS COUNTY, KY	\$ 9,584	0.00%	99.91%
BEXAR COUNTY, TX	\$ 9,300	0.00%	99.91%
PRINCE GEORGES COUNTY, MD	\$ 9,090	0.00%	99.92%
BREVARD COUNTY, FL	\$ 9,065	0.00%	99.92%
FORT BEND COUNTY, TX	\$ 9,001	0.00%	99.92%
ALAMEDA COUNTY, CA	\$ 8,397	0.00%	99.93%
LIVINGSTON COUNTY, MI	\$ 7,506	0.00%	99.93%
BOULDER COUNTY, CO	\$ 6,970	0.00%	99.93%
SAN JOAQUIN COUNTY, CA	\$ 6,568	0.00%	99.94%
POLK COUNTY, FL	\$ 6,445	0.00%	99.94%
PHILADELPHIA COUNTY, PA	\$ 5,992	0.00%	99.94%
DANVILLE CITY COUNTY, VA	\$ 5,800	0.00%	99.94%
SALT LAKE COUNTY, UT	\$ 5,550	0.00%	99.94%
WOODBURY COUNTY, IA	\$ 5,300	0.00%	99.95%
CADDO COUNTY, LA	\$ 5,155	0.00%	99.95%
CHARLESTON COUNTY, SC	\$ 5,025	0.00%	99.95%
ALACHUA COUNTY, FL	\$ 5,003	0.00%	99.95%
LA PLATA COUNTY, CO	\$ 5,000	0.00%	99.95%
SARPY COUNTY, NE	\$ 4,972	0.00%	99.96%
WASHINGTON COUNTY, PA	\$ 4,560	0.00%	99.96%
DAUPHIN COUNTY, PA	\$ 4,440	0.00%	99.96%
BLOUNT COUNTY, TN	\$ 4,075	0.00%	99.96%
MARTIN COUNTY, IN	\$ 3,600	0.00%	99.96%
JACKSON COUNTY, MI	\$ 3,238	0.00%	99.96%
DAVIS COUNTY, UT	\$ 3,127	0.00%	99.96%
WAYNE COUNTY, MI	\$ 3,036	0.00%	99.97%
NEW YORK COUNTY, NY	\$ 2,977	0.00%	99.97%
HART COUNTY, KY	\$ 2,976	0.00%	99.97%
ELKHART COUNTY, IN	\$ 2,786	0.00%	99.97%
RICHMOND COUNTY, NY	\$ 2,670	0.00%	99.97%
SAINT CHARLES COUNTY, MO	\$ 2,640	0.00%	99.97%
OCONEE COUNTY, GA	\$ 2,565	0.00%	99.97%
CHRISTIAN COUNTY, MO	\$ 2,250	0.00%	99.97%

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

NASSAU COUNTY, NY	\$ 2,000	0.00%	99.97%
ESSEX COUNTY, MA	\$ 1,980	0.00%	99.97%
CLAY COUNTY, FL	\$ 1,786	0.00%	99.98%
WINNEBAGO COUNTY, WI	\$ 1,694	0.00%	99.98%
RALEIGH COUNTY, WV	\$ 1,672	0.00%	99.98%
MIDDLESEX COUNTY, CT	\$ 1,648	0.00%	99.98%
TANGIPAHOA COUNTY, LA	\$ 1,573	0.00%	99.98%
HAMPSHIRE COUNTY, MA	\$ 1,512	0.00%	99.98%
OKLAHOMA COUNTY, OK	\$ 1,148	0.00%	99.98%
CAMDEN COUNTY, NJ	\$ 631	0.00%	99.98%
CLARK COUNTY, NV	\$ 619	0.00%	99.98%
ALBANY COUNTY, NY	\$ 541	0.00%	99.98%
TARRANT COUNTY, TX	\$ 500	0.00%	99.98%
WILLIAMSON COUNTY, TN	\$ 415	0.00%	99.98%
GRATIOT COUNTY, MI	\$ 410	0.00%	99.98%
DEARBORN COUNTY, IN	\$ 388	0.00%	99.98%
EDGAR COUNTY, IL	\$ 363	0.00%	99.98%
PLYMOUTH COUNTY, MA	\$ 158	0.00%	99.98%
NEW CASTLE COUNTY, DE	\$ 119	0.00%	99.98%
SAINT LOUIS COUNTY, MN	\$ 60	0.00%	99.98%
BERGEN COUNTY, NJ	\$ 53	0.00%	99.98%
CANADA	\$ 31,765	0.01%	99.99%
INTERNET	\$ 18,441	0.01%	100.00%
Total	\$ 259,818,307	100.00%	

Table A-5
City of Cincinnati Disparity Study
List of Counties and States in the Prime Data
Goods

County, State	Amount	Percent	Cumulative Percent
HAMILTON COUNTY, OH	\$ 170,401,416	59.90%	59.90%
BUTLER COUNTY, OH	\$ 22,021,444	7.74%	67.64%
WARREN COUNTY, OH	\$ 20,000,733	7.03%	74.67%
FRANKLIN COUNTY, OH	\$ 6,901,367	2.43%	77.09%
CUYAHOGA COUNTY, OH	\$ 2,850,072	1.00%	78.09%
CLERMONT COUNTY, OH	\$ 2,053,624	0.72%	78.82%
MONTGOMERY COUNTY, OH	\$ 1,965,633	0.69%	79.51%
GUERNSEY COUNTY, OH	\$ 1,032,829	0.36%	79.87%
GREENE COUNTY, OH	\$ 530,232	0.19%	80.06%
LAKE COUNTY, OH	\$ 490,573	0.17%	80.23%
PORTAGE COUNTY, OH	\$ 443,094	0.16%	80.38%
SUMMIT COUNTY, OH	\$ 441,094	0.16%	80.54%
MIAMI COUNTY, OH	\$ 290,056	0.10%	80.64%
FAYETTE COUNTY, OH	\$ 247,693	0.09%	80.73%
CLARK COUNTY, OH	\$ 235,420	0.08%	80.81%
HOCKING COUNTY, OH	\$ 200,483	0.07%	80.88%
DELAWARE COUNTY, OH	\$ 119,899	0.04%	80.92%
VAN WERT COUNTY, OH	\$ 54,278	0.02%	80.94%
MORGAN COUNTY, OH	\$ 42,507	0.01%	80.96%
MAHONING COUNTY, OH	\$ 30,620	0.01%	80.97%
PIKE COUNTY, OH	\$ 25,248	0.01%	80.98%
GEAUGA COUNTY, OH	\$ 20,239	0.01%	80.98%
RICHLAND COUNTY, OH	\$ 19,313	0.01%	80.99%
MEDINA COUNTY, OH	\$ 11,765	0.00%	81.00%
STARK COUNTY, OH	\$ 11,700	0.00%	81.00%
ADAMS COUNTY, OH	\$ 8,928	0.00%	81.00%
WYANDOT COUNTY, OH	\$ 6,631	0.00%	81.00%
LUCAS COUNTY, OH	\$ 5,982	0.00%	81.01%
CHAMPAIGN COUNTY, OH	\$ 4,919	0.00%	81.01%
TRUMBULL COUNTY, OH	\$ 4,135	0.00%	81.01%
ALLEN COUNTY, OH	\$ 1,834	0.00%	81.01%
TUSCARAWAS COUNTY, OH	\$ 1,785	0.00%	81.01%
WOOD COUNTY, OH	\$ 953	0.00%	81.01%
SENECA COUNTY, OH	\$ 836	0.00%	81.01%
MERCER COUNTY, OH	\$ 514	0.00%	81.01%
DARKE COUNTY, OH	\$ 204	0.00%	81.01%
HANCOCK COUNTY, OH	\$ 70	0.00%	81.01%
KENTON COUNTY, KY	\$ 11,296,327	3.97%	84.98%
CHISAGO COUNTY, MN	\$ 5,323,982	1.87%	86.85%
BOONE COUNTY, KY	\$ 3,748,126	1.32%	88.17%
MARICOPA COUNTY, AZ	\$ 3,725,666	1.31%	89.48%
ALLEGHENY COUNTY, PA	\$ 3,687,347	1.30%	90.78%
COOK COUNTY, IL	\$ 2,612,651	0.92%	91.70%
MARION COUNTY, IN	\$ 2,573,374	0.90%	92.60%

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

KING COUNTY, WA	\$ 2,063,631	0.73%	93.33%
KANE COUNTY, IL	\$ 1,361,078	0.48%	93.80%
SANTA CRUZ COUNTY, CA	\$ 1,078,085	0.38%	94.18%
ORANGE COUNTY, CA	\$ 1,045,642	0.37%	94.55%
NORFOLK COUNTY, MA	\$ 1,012,564	0.36%	94.91%
CHESTER COUNTY, PA	\$ 981,929	0.35%	95.25%
LOS ANGELES COUNTY, CA	\$ 645,796	0.23%	95.48%
HARRIS COUNTY, TX	\$ 624,226	0.22%	95.70%
MONTGOMERY COUNTY, MD	\$ 615,547	0.22%	95.91%
WHATCOM COUNTY, WA	\$ 596,567	0.21%	96.12%
FULTON COUNTY, GA	\$ 522,751	0.18%	96.31%
MONROE COUNTY, MI	\$ 459,706	0.16%	96.47%
VANDEBURGH COUNTY, IN	\$ 454,027	0.16%	96.63%
SAINT LOUIS COUNTY, MO	\$ 439,326	0.15%	96.78%
LIBERTY COUNTY, GA	\$ 387,442	0.14%	96.92%
CLARK COUNTY, IN	\$ 351,065	0.12%	97.04%
WAKE COUNTY, NC	\$ 335,622	0.12%	97.16%
HENDRICKS COUNTY, IN	\$ 335,533	0.12%	97.28%
CAMPBELL COUNTY, KY	\$ 300,852	0.11%	97.38%
CALVERT COUNTY, MD	\$ 300,158	0.11%	97.49%
ERIE COUNTY, PA	\$ 293,957	0.10%	97.59%
CHITTENDEN COUNTY, VT	\$ 288,879	0.10%	97.69%
JEFFERSON COUNTY, CO	\$ 285,671	0.10%	97.80%
ARAPAHOE COUNTY, CO	\$ 265,968	0.09%	97.89%
WARREN COUNTY, IA	\$ 260,525	0.09%	97.98%
CUMBERLAND COUNTY, ME	\$ 257,386	0.09%	98.07%
UNION COUNTY, NC	\$ 220,937	0.08%	98.15%
HENNEPIN COUNTY, MN	\$ 196,067	0.07%	98.22%
MECKLENBURG COUNTY, NC	\$ 190,464	0.07%	98.28%
INDIAN RIVER COUNTY, FL	\$ 164,602	0.06%	98.34%
LA SALLE COUNTY, IL	\$ 162,854	0.06%	98.40%
BOULDER COUNTY, CO	\$ 155,700	0.05%	98.45%
WAUKESHA COUNTY, WI	\$ 150,254	0.05%	98.51%
JEFFERSON COUNTY, KY	\$ 145,632	0.05%	98.56%
CASS COUNTY, ND	\$ 119,664	0.04%	98.60%
DUPAGE COUNTY, IL	\$ 119,647	0.04%	98.64%
RAMSEY COUNTY, MN	\$ 118,965	0.04%	98.68%
SALINE COUNTY, KS	\$ 111,679	0.04%	98.72%
MACOMB COUNTY, MI	\$ 102,956	0.04%	98.76%
SEMINOLE COUNTY, FL	\$ 100,000	0.04%	98.79%
SALT LAKE COUNTY, UT	\$ 99,000	0.03%	98.83%
DELAWARE COUNTY, PA	\$ 96,737	0.03%	98.86%
DALLAS COUNTY, TX	\$ 87,600	0.03%	98.89%
NEW LONDON COUNTY, CT	\$ 86,490	0.03%	98.92%
MCHENRY COUNTY, IL	\$ 85,354	0.03%	98.95%
ROCKINGHAM COUNTY, NH	\$ 85,140	0.03%	98.98%
ORANGE COUNTY, FL	\$ 78,890	0.03%	99.01%
DENVER COUNTY, CO	\$ 78,556	0.03%	99.04%
MIDDLESEX COUNTY, MA	\$ 73,768	0.03%	99.07%
SMITH COUNTY, TX	\$ 67,074	0.02%	99.09%
JOHNSON COUNTY, KS	\$ 66,773	0.02%	99.11%
ERIE COUNTY, NY	\$ 66,417	0.02%	99.14%
BLUE EARTH COUNTY, MN	\$ 64,489	0.02%	99.16%
OCONEE COUNTY, GA	\$ 60,926	0.02%	99.18%
MONTGOMERY COUNTY, PA	\$ 60,554	0.02%	99.20%
KENT COUNTY, MI	\$ 60,419	0.02%	99.22%

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

NORFOLK CITY COUNTY, VA	\$ 59,364	0.02%	99.24%
MARION COUNTY, FL	\$ 55,004	0.02%	99.26%
ORANGE COUNTY, NY	\$ 53,844	0.02%	99.28%
FAYETTE COUNTY, KY	\$ 51,752	0.02%	99.30%
OAKLAND COUNTY, MI	\$ 50,032	0.02%	99.32%
DUVAL COUNTY, FL	\$ 47,256	0.02%	99.33%
IREDELL COUNTY, NC	\$ 45,716	0.02%	99.35%
BREVARD COUNTY, FL	\$ 43,610	0.02%	99.37%
BROWARD COUNTY, FL	\$ 42,199	0.01%	99.38%
CATAWBA COUNTY, NC	\$ 41,172	0.01%	99.40%
TULSA COUNTY, OK	\$ 39,782	0.01%	99.41%
JEFFERSON COUNTY, MO	\$ 37,575	0.01%	99.42%
MERCER COUNTY, PA	\$ 35,511	0.01%	99.43%
NASSAU COUNTY, NY	\$ 35,415	0.01%	99.45%
JEFFERSON COUNTY, WI	\$ 35,228	0.01%	99.46%
ROANE COUNTY, WV	\$ 34,930	0.01%	99.47%
KNOX COUNTY, IL	\$ 34,787	0.01%	99.48%
WAYNE COUNTY, NY	\$ 34,574	0.01%	99.50%
UTAH COUNTY, UT	\$ 33,404	0.01%	99.51%
CHEROKEE COUNTY, GA	\$ 33,117	0.01%	99.52%
ANNE ARUNDEL COUNTY, MD	\$ 31,249	0.01%	99.53%
MASON COUNTY, KY	\$ 30,916	0.01%	99.54%
SPARTANBURG COUNTY, SC	\$ 30,533	0.01%	99.55%
OTTAWA COUNTY, MI	\$ 30,490	0.01%	99.56%
DENTON COUNTY, TX	\$ 28,757	0.01%	99.57%
POWESHIEK COUNTY, IA	\$ 28,674	0.01%	99.58%
MCLEAN COUNTY, IL	\$ 27,523	0.01%	99.59%
FRANKLIN COUNTY, NC	\$ 26,832	0.01%	99.60%
ORANGE COUNTY, VA	\$ 25,685	0.01%	99.61%
BRUNSWICK COUNTY, NC	\$ 25,292	0.01%	99.62%
PIMA COUNTY, AZ	\$ 23,735	0.01%	99.63%
SAN DIEGO COUNTY, CA	\$ 19,355	0.01%	99.64%
MIDDLESEX COUNTY, NJ	\$ 18,920	0.01%	99.64%
TRAVIS COUNTY, TX	\$ 17,761	0.01%	99.65%
HILLSBOROUGH COUNTY, FL	\$ 17,046	0.01%	99.65%
CONTRA COSTA COUNTY, CA	\$ 16,985	0.01%	99.66%
TIPPECANOE COUNTY, IN	\$ 16,895	0.01%	99.67%
MONMOUTH COUNTY, NJ	\$ 16,000	0.01%	99.67%
WINDHAM COUNTY, VT	\$ 15,998	0.01%	99.68%
BRAZOS COUNTY, TX	\$ 15,828	0.01%	99.68%
LAKE COUNTY, IL	\$ 15,773	0.01%	99.69%
GLOUCESTER COUNTY, NJ	\$ 15,578	0.01%	99.69%
RANKIN COUNTY, MS	\$ 15,237	0.01%	99.70%
ROBERTSON COUNTY, KY	\$ 14,868	0.01%	99.70%
LARIMER COUNTY, CO	\$ 14,677	0.01%	99.71%
SCOTT COUNTY, IA	\$ 14,592	0.01%	99.71%
PUTNAM COUNTY, NY	\$ 14,543	0.01%	99.72%
CRITTENDEN COUNTY, AR	\$ 13,830	0.00%	99.72%
SAGINAW COUNTY, MI	\$ 13,817	0.00%	99.73%
EMMET COUNTY, MI	\$ 13,665	0.00%	99.73%
FRANKLIN COUNTY, MA	\$ 13,476	0.00%	99.74%
CHEROKEE COUNTY, IA	\$ 12,920	0.00%	99.74%
HAMILTON COUNTY, IN	\$ 12,895	0.00%	99.75%
PALM BEACH COUNTY, FL	\$ 12,866	0.00%	99.75%
KNOX COUNTY, TN	\$ 12,785	0.00%	99.76%
SAINT CHARLES COUNTY, MO	\$ 12,750	0.00%	99.76%
KENT COUNTY, RI	\$ 12,207	0.00%	99.77%

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

MAHASKA COUNTY, IA	\$ 12,150	0.00%	99.77%
BURLEIGH COUNTY, ND	\$ 11,679	0.00%	99.77%
KALAMAZOO COUNTY, MI	\$ 11,463	0.00%	99.78%
PIERCE COUNTY, WA	\$ 11,242	0.00%	99.78%
DOUGLAS COUNTY, NE	\$ 11,174	0.00%	99.79%
SAN FRANCISCO COUNTY, CA	\$ 10,283	0.00%	99.79%
TISHOMINGO COUNTY, MS	\$ 9,921	0.00%	99.79%
EL PASO COUNTY, CO	\$ 9,209	0.00%	99.80%
QUEENS COUNTY, NY	\$ 8,833	0.00%	99.80%
DOUGLAS COUNTY, GA	\$ 8,745	0.00%	99.80%
JEFFERSON COUNTY, AL	\$ 8,732	0.00%	99.81%
DAVISS COUNTY, KY	\$ 8,708	0.00%	99.81%
DAWSON COUNTY, GA	\$ 8,177	0.00%	99.81%
POLK COUNTY, IA	\$ 8,126	0.00%	99.81%
GREENVILLE COUNTY, SC	\$ 8,014	0.00%	99.82%
SAINT LOUIS CITY COUNTY, MO	\$ 7,954	0.00%	99.82%
ANOKA COUNTY, MN	\$ 7,746	0.00%	99.82%
CLARK COUNTY, WA	\$ 7,443	0.00%	99.83%
GRAFTON COUNTY, NH	\$ 6,701	0.00%	99.83%
ONONDAGA COUNTY, NY	\$ 6,604	0.00%	99.83%
BUCKS COUNTY, PA	\$ 6,500	0.00%	99.83%
JESSAMINE COUNTY, KY	\$ 6,360	0.00%	99.83%
WESTMORELAND COUNTY, PA	\$ 6,250	0.00%	99.84%
CHEYENNE COUNTY, NE	\$ 5,928	0.00%	99.84%
SANTA CLARA COUNTY, CA	\$ 5,855	0.00%	99.84%
BEAVER COUNTY, PA	\$ 5,708	0.00%	99.84%
MADISON COUNTY, GA	\$ 5,574	0.00%	99.85%
SANTA BARBARA COUNTY, CA	\$ 5,464	0.00%	99.85%
SUFFOLK COUNTY, NY	\$ 4,945	0.00%	99.85%
STEELE COUNTY, MN	\$ 4,941	0.00%	99.85%
CLINTON COUNTY, NY	\$ 4,889	0.00%	99.85%
CANYON COUNTY, ID	\$ 4,648	0.00%	99.85%
MILWAUKEE COUNTY, WI	\$ 4,542	0.00%	99.86%
DESOTO COUNTY, MS	\$ 4,501	0.00%	99.86%
ALAMEDA COUNTY, CA	\$ 4,395	0.00%	99.86%
DANE COUNTY, WI	\$ 4,350	0.00%	99.86%
DELAWARE COUNTY, IN	\$ 4,346	0.00%	99.86%
PRENTISS COUNTY, MS	\$ 4,334	0.00%	99.86%
SPOKANE COUNTY, WA	\$ 4,080	0.00%	99.86%
RICHLAND COUNTY, IL	\$ 3,979	0.00%	99.87%
FAIRFAX COUNTY, VA	\$ 3,915	0.00%	99.87%
RUTHERFORD COUNTY, TN	\$ 3,809	0.00%	99.87%
MIAMI-DADE COUNTY, FL	\$ 3,806	0.00%	99.87%
CLARK COUNTY, NV	\$ 3,775	0.00%	99.87%
STRAFFORD COUNTY, NH	\$ 3,758	0.00%	99.87%
HART COUNTY, KY	\$ 3,725	0.00%	99.87%
RIVERSIDE COUNTY, CA	\$ 3,708	0.00%	99.88%
MARSHALL COUNTY, IN	\$ 3,368	0.00%	99.88%
MEADE COUNTY, SD	\$ 3,205	0.00%	99.88%
LINN COUNTY, IA	\$ 3,183	0.00%	99.88%
MONROE COUNTY, PA	\$ 3,147	0.00%	99.88%
CECIL COUNTY, MD	\$ 3,078	0.00%	99.88%
LITCHFIELD COUNTY, CT	\$ 3,058	0.00%	99.88%
SUSSEX COUNTY, DE	\$ 2,887	0.00%	99.88%
NELSON COUNTY, KY	\$ 2,730	0.00%	99.88%
ALAMANCE COUNTY, NC	\$ 2,728	0.00%	99.89%
MONROE COUNTY, NY	\$ 2,550	0.00%	99.89%

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

SEDGWICK COUNTY, KS	\$ 2,416	0.00%	99.89%
BERRIEN COUNTY, MI	\$ 2,366	0.00%	99.89%
KING WILLIAM COUNTY, VA	\$ 2,169	0.00%	99.89%
CLINTON COUNTY, MI	\$ 2,138	0.00%	99.89%
SONOMA COUNTY, CA	\$ 2,045	0.00%	99.89%
WASHINGTON COUNTY, MS	\$ 1,758	0.00%	99.89%
BALTIMORE COUNTY, MD	\$ 1,477	0.00%	99.89%
DAKOTA COUNTY, MN	\$ 1,299	0.00%	99.89%
KERN COUNTY, CA	\$ 1,242	0.00%	99.89%
KENT COUNTY, MD	\$ 1,191	0.00%	99.89%
NEW YORK COUNTY, NY	\$ 825	0.00%	99.89%
PASSAIC COUNTY, NJ	\$ 694	0.00%	99.89%
NEW HAVEN COUNTY, CT	\$ 622	0.00%	99.89%
WASHINGTON COUNTY, RI	\$ 613	0.00%	99.89%
LINCOLN COUNTY, OK	\$ 597	0.00%	99.89%
MARIN COUNTY, CA	\$ 512	0.00%	99.89%
HENRICO COUNTY, VA	\$ 510	0.00%	99.89%
MARSHALL COUNTY, TN	\$ 470	0.00%	99.89%
WINNEBAGO COUNTY, WI	\$ 368	0.00%	99.89%
LANCASTER COUNTY, PA	\$ 138	0.00%	99.89%
LAWRENCE COUNTY, IN	\$ 133	0.00%	99.89%
DORCHESTER COUNTY, SC	\$ 113	0.00%	99.89%
RALEIGH COUNTY, WV	\$ 40	0.00%	99.89%
BAY COUNTY, MI	\$ 15	0.00%	99.89%
CANADA	\$ 270,635	0.10%	99.99%
INTERNET	\$ 30,191	0.01%	100.00%
Total	\$ 284,497,859	100.00%	

APPENDIX B

**City of Cincinnati 2022 Disparity Study
List of Available Businesses by Ethnicity/Gender
in Hamilton County, Ohio**

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

Business Ownership Classification	Number of Firms	Percent of Firms
Black American	96	12.48%
Asian American	5	0.65%
Hispanic American	5	0.65%
Native American	1	0.13%
TOTAL MBE	107	13.91%
Nonminority Female	52	6.76%
TOTAL M/WBE	159	20.68%
NON-M/WDBE	610	79.32%
TOTAL FIRMS	769	100.00%

Griffin & Strong, P.C. 2020

Table B-2
City of Cincinnati Disparity Study
Availability of Firms by Business Ownership in Market Area
Architectural & Engineering

Business Ownership Classification	Number of Firms	Percent of Firms
Black American	13	7.69%
Asian American	6	3.55%
Hispanic American	4	2.37%
Native American	0	0.00%
TOTAL MBE	23	13.61%
Nonminority Female	18	10.65%
TOTAL M/WBE	41	24.26%
NON-M/WDBE	128	75.74%
TOTAL FIRMS	169	100.00%

Griffin & Strong, P.C. 2020

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

Business Ownership Classification	Number of Firms	Percent of Firms
Black American	48	12.37%
Asian American	4	1.03%
Hispanic American	1	0.26%
Native American	0	0.00%
TOTAL MBE	53	13.66%
Nonminority Female	25	6.44%
TOTAL M/WBE	78	20.10%
NON-M/WDBE	310	79.90%
TOTAL FIRMS	388	100.00%

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Table B-4
City of Cincinnati Disparity Study
Availability of Firms by Business Ownership in Market Area
Other Services

Business Ownership Classification	Number of Firms	Percent of Firms
Black American	130	10.45%
Asian American	9	0.72%
Hispanic American	4	0.32%
Native American	1	0.08%
TOTAL MBE	144	11.58%
Nonminority Female	44	3.54%
TOTAL M/WBE	188	15.11%
NON-M/WDBE	1,056	84.89%
TOTAL FIRMS	1,244	100.00%

Griffin & Strong, P.C. 2020

Table B-5
City of Cincinnati Disparity Study
Availability of Firms by Business Ownership in Market Area
Goods

Business Ownership Classification	Number of Firms	Percent of Firms
Black American	38	5.05%
Asian American	2	0.27%
Hispanic American	1	0.13%
Native American	0	0.00%
TOTAL MBE	41	5.44%
Nonminority Female	34	4.52%
TOTAL M/WBE	75	9.96%
NON-M/WDBE	678	90.04%
TOTAL FIRMS	753	100.00%

Griffin & Strong, P.C. 2020

APPENDIX C

**City of Cincinnati 2022 Disparity Study
Disparity Analysis of Prime Data
Distribution of Dollars by Business Ownership and Fiscal Year**

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

**Table C-1
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year
Prime Construction
(Using Payment Dollars, CY 2016-2020)**

Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	1.17%	12.48%	9.38	Underutilization	*	
	Asian American	0.00%	0.65%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	
	Native American	0.00%	0.13%	0.00	Underutilization	*	
	TOTAL MBE	1.17%	13.91%	8.41	Underutilization	*	
	Nonminority Female	0.58%	6.76%	8.59	Underutilization	*	
	TOTAL M/WBE	1.75%	20.68%	8.47	Underutilization	*	
2017	Black American	2.06%	12.48%	16.46	Underutilization	*	
	Asian American	0.00%	0.65%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	
	Native American	0.00%	0.13%	0.00	Underutilization	*	
	TOTAL MBE	2.06%	13.91%	14.77	Underutilization	*	
	Nonminority Female	1.09%	6.76%	16.05	Underutilization	*	
	TOTAL M/WBE	3.14%	20.68%	15.19	Underutilization	*	
2018	Black American	1.99%	12.48%	15.91	Underutilization	*	
	Asian American	0.00%	0.65%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	
	Native American	0.00%	0.13%	0.00	Underutilization	*	
	TOTAL MBE	1.99%	13.91%	14.27	Underutilization	*	
	Nonminority Female	0.87%	6.76%	12.83	Underutilization	*	
	TOTAL M/WBE	2.85%	20.68%	13.80	Underutilization	*	
2019	Black American	2.41%	12.48%	19.32	Underutilization	*	
	Asian American	0.00%	0.65%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	
	Native American	0.00%	0.13%	0.00	Underutilization	*	
	TOTAL MBE	2.41%	13.91%	17.33	Underutilization	*	
	Nonminority Female	1.55%	6.76%	22.96	Underutilization	*	
	TOTAL M/WBE	3.96%	20.68%	19.17	Underutilization	*	
2020	Black American	0.32%	12.48%	2.59	Underutilization	*	
	Asian American	0.00%	0.65%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	
	Native American	0.00%	0.13%	0.00	Underutilization	*	
	TOTAL MBE	0.32%	13.91%	2.32	Underutilization	*	
	Nonminority Female	1.28%	6.76%	18.87	Underutilization	*	
	TOTAL M/WBE	1.60%	20.68%	7.73	Underutilization	*	
Total	Black American	1.60%	12.48%	12.78	Underutilization	*	p <.05
	Asian American	0.00%	0.65%	0.00	Underutilization	*	p <.05
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	p <.05
	Native American	0.00%	0.13%	0.00	Underutilization	*	Small Number
	TOTAL MBE	1.60%	13.91%	11.46	Underutilization	*	p <.05
	Nonminority Female	1.08%	6.76%	15.92	Underutilization	*	p <.05
	TOTAL M/WBE	2.67%	20.68%	12.92	Underutilization	*	p <.05
Non-M/WBE	97.33%	79.32%	122.70	Overutilization			

Griffin & Strong, P.C., 2022

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

**Table C-2
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year
Prime A&E
(Using Payment Dollars, CY 2016-2020)**

Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	2.37%	7.69%	30.83	Underutilization	*	
	Asian American	7.91%	3.55%	222.81	Overutilization		
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	10.28%	13.61%	75.55	Underutilization	*	
	Nonminority Female	0.97%	10.65%	9.09	Underutilization	*	
	TOTAL M/WBE	11.25%	24.26%	46.37	Underutilization	*	
2017	Black American	0.13%	7.69%	1.63	Underutilization	*	
	Asian American	11.52%	3.55%	324.42	Overutilization		
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	11.64%	13.61%	85.55	Underutilization		
	Nonminority Female	0.84%	10.65%	7.88	Underutilization	*	
	TOTAL M/WBE	12.48%	24.26%	51.46	Underutilization	*	
2018	Black American	0.00%	7.69%	0.00	Underutilization	*	
	Asian American	12.04%	3.55%	339.20	Overutilization		
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	12.04%	13.61%	88.49	Underutilization		
	Nonminority Female	1.93%	10.65%	18.14	Underutilization	*	
	TOTAL M/WBE	13.98%	24.26%	57.60	Underutilization	*	
2019	Black American	0.00%	7.69%	0.00	Underutilization	*	
	Asian American	15.63%	3.55%	440.21	Overutilization		
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	15.63%	13.61%	114.84	Overutilization		
	Nonminority Female	0.70%	10.65%	6.53	Underutilization	*	
	TOTAL M/WBE	16.32%	24.26%	67.29	Underutilization	*	
2020	Black American	0.16%	7.69%	2.14	Underutilization	*	
	Asian American	11.24%	3.55%	316.51	Overutilization		
	Hispanic American	5.72%	2.37%	241.67	Overutilization		
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	17.12%	13.61%	125.81	Overutilization		
	Nonminority Female	0.13%	10.65%	1.24	Underutilization	*	
	TOTAL M/WBE	17.25%	24.26%	71.12	Underutilization	*	
Total	Black American	0.47%	7.69%	6.13	Underutilization	*	p < .05
	Asian American	11.53%	3.55%	324.81	Overutilization		
	Hispanic American	1.37%	2.37%	57.89	Underutilization	*	p < .05
	Native American	0.00%	0.00%	-	n/a		Small
	TOTAL MBE	13.37%	13.61%	98.26	Underutilization		
	Nonminority Female	0.86%	10.65%	8.04	Underutilization	*	p < .05
	TOTAL M/WBE	14.23%	24.26%	58.66	Underutilization	*	p < .05
	Non-M/WBE	85.77%	75.74%	113.24	Overutilization		

Griffin & Strong, P.C. 2022

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

**Table C-3
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year,
Prime Professional Services
(Using Payment Dollars, CY 2016-2020)**

Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	3.51%	12.37%	28.40	Underutilization	*	
	Asian American	0.00%	1.03%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	3.51%	13.66%	25.72	Underutilization	*	
	Nonminority Female	6.17%	6.44%	95.79	Underutilization		
	TOTAL M/WBE	9.69%	20.10%	48.18	Underutilization	*	
	Non-M/WBE	90.31%	79.90%	113.04	Overutilization		
2017	Black American	18.91%	12.37%	152.89	Overutilization		
	Asian American	0.00%	1.03%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	18.91%	13.66%	138.47	Overutilization		
	Nonminority Female	2.32%	6.44%	36.08	Underutilization	*	
	TOTAL M/WBE	21.24%	20.10%	105.65	Overutilization		
	Non-M/WBE	78.76%	79.90%	98.58	Underutilization		
2018	Black American	10.94%	12.37%	88.40	Underutilization		
	Asian American	0.00%	1.03%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	10.94%	13.66%	80.06	Underutilization		
	Nonminority Female	0.38%	6.44%	5.95	Underutilization	*	
	TOTAL M/WBE	11.32%	20.10%	56.31	Underutilization	*	
	Non-M/WBE	88.68%	79.90%	110.99	Overutilization		
2019	Black American	7.21%	12.37%	58.30	Underutilization	*	
	Asian American	0.00%	1.03%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	7.21%	13.66%	52.80	Underutilization	*	
	Nonminority Female	0.39%	6.44%	5.99	Underutilization	*	
	TOTAL M/WBE	7.60%	20.10%	37.80	Underutilization	*	
	Non-M/WBE	92.40%	79.90%	115.65	Overutilization		
2020	Black American	2.42%	12.37%	19.57	Underutilization	*	
	Asian American	0.00%	1.03%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	2.42%	13.66%	17.73	Underutilization	*	
	Nonminority Female	0.75%	6.44%	11.60	Underutilization	*	
	TOTAL M/WBE	3.17%	20.10%	15.76	Underutilization	*	
	Non-M/WBE	96.83%	79.90%	121.19	Overutilization		
Total	Black American	9.55%	12.37%	77.20	Underutilization	*	p < .05
	Asian American	0.00%	1.03%	0.00	Underutilization	*	p < .05
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	p < .05
	Native American	0.00%	0.00%	-	n/a		Small Number
	TOTAL MBE	9.55%	13.66%	69.91	Underutilization	*	p < .05
	Nonminority Female	1.87%	6.44%	29.03	Underutilization	*	p < .05
	TOTAL M/WBE	11.42%	20.10%	56.81	Underutilization	*	p < .05
	Non-M/WBE	88.58%	79.90%	110.87	Overutilization		

Griffin & Strong, P.C. 2022

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

**Table C-4
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year
Prime Other Services
(Using Payment Dollars, CY 2016-2020)**

Year	Business Ownership	Percent of Dollars	Percent of Available	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	1.71%	10.45%	16.39	Underutilization	*	
	Asian American	0.01%	0.72%	0.94	Underutilization	*	
	Hispanic American	0.00%	0.32%	0.00	Underutilization	*	
	Native American	0.00%	0.08%	0.00	Underutilization	*	
	TOTAL MBE	1.72%	11.58%	14.86	Underutilization	*	
	Nonminority Female	4.95%	3.54%	139.86	Overutilization		
	TOTAL M/WBE	6.67%	15.11%	44.11	Underutilization	*	
	Non-M/WBE	93.33%	84.89%	109.95	Overutilization		
2017	Black American	3.76%	10.45%	36.01	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.32%	0.00	Underutilization	*	
	Native American	0.00%	0.08%	0.00	Underutilization	*	
	TOTAL MBE	3.76%	11.58%	32.51	Underutilization	*	
	Nonminority Female	2.27%	3.54%	64.20	Underutilization	*	
	TOTAL M/WBE	6.03%	15.11%	39.93	Underutilization	*	
	Non-M/WBE	93.97%	84.89%	110.69	Overutilization		
2018	Black American	3.21%	10.45%	30.68	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.32%	0.00	Underutilization	*	
	Native American	0.00%	0.08%	0.00	Underutilization	*	
	TOTAL MBE	3.21%	11.58%	27.70	Underutilization	*	
	Nonminority Female	2.21%	3.54%	62.53	Underutilization	*	
	TOTAL M/WBE	5.42%	15.11%	35.85	Underutilization	*	
	Non-M/WBE	94.58%	84.89%	111.42	Overutilization		
2019	Black American	3.44%	10.45%	32.91	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.32%	0.00	Underutilization	*	
	Native American	0.00%	0.08%	0.00	Underutilization	*	
	TOTAL MBE	3.44%	11.58%	29.71	Underutilization	*	
	Nonminority Female	1.81%	3.54%	51.12	Underutilization	*	
	TOTAL M/WBE	5.25%	15.11%	34.72	Underutilization	*	
	Non-M/WBE	94.75%	84.89%	111.62	Overutilization		
2020	Black American	3.07%	10.45%	29.41	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.32%	0.00	Underutilization	*	
	Native American	0.00%	0.08%	0.00	Underutilization	*	
	TOTAL MBE	3.07%	11.58%	26.55	Underutilization	*	
	Nonminority Female	2.22%	3.54%	62.87	Underutilization	*	
	TOTAL M/WBE	5.30%	15.11%	35.05	Underutilization	*	
	Non-M/WBE	94.70%	84.89%	111.56	Overutilization		
Total	Black American	3.01%	10.45%	28.83	Underutilization	*	p < .05
	Asian American	0.00%	0.72%	0.20	Underutilization	*	p < .05
	Hispanic American	0.00%	0.32%	0.00	Underutilization	*	p < .05
	Native American	0.00%	0.08%	0.00	Underutilization	*	Small Number
	TOTAL MBE	3.01%	11.58%	26.04	Underutilization	*	p < .05
	Nonminority Female	2.73%	3.54%	77.20	Underutilization	*	
	TOTAL M/WBE	5.74%	15.11%	38.01	Underutilization	*	p < .05
	Non-M/WBE	94.26%	84.89%	111.04	Overutilization		

Griffin & Strong, P.C. 2022

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

Table C-5
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year
Prime Goods
(Using Payment Dollars, CY 2016-2020)

Fiscal Year	Business Ownership	Percent of	Percent of Available	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	3.37%	5.05%	66.73	Underutilization	*	
	Asian American	0.00%	0.27%	0.00	Underutilization	*	
	Hispanic	0.00%	0.13%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	3.37%	5.44%	61.85	Underutilization	*	
	Nonminority	0.73%	4.52%	16.17	Underutilization	*	
	TOTAL M/WBE	4.10%	9.96%	41.14	Underutilization	*	
	Non-M/WBE	95.90%	90.04%	106.51	Overutilization		
2017	Black American	4.48%	5.05%	88.87	Underutilization		
	Asian American	0.00%	0.27%	0.00	Underutilization	*	
	Hispanic	0.00%	0.13%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	4.48%	5.44%	82.36	Underutilization		
	Nonminority	0.80%	4.52%	17.63	Underutilization	*	
	TOTAL M/WBE	5.28%	9.96%	53.02	Underutilization	*	
	Non-M/WBE	94.72%	90.04%	105.20	Overutilization		
2018	Black American	0.00%	5.05%	0.00	Underutilization	*	
	Asian American	#REF!	0.27%	-	n/a		
	Hispanic	0.00%	0.13%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	5.53%	5.44%	101.57	Overutilization		
	Nonminority	0.83%	4.52%	18.28	Underutilization	*	
	TOTAL M/WBE	6.36%	9.96%	63.81	Underutilization	*	
	Non-M/WBE	93.64%	90.04%	104.00	Overutilization		
2019	Black American	5.90%	5.05%	117.01	Overutilization		
	Asian American	0.00%	0.27%	0.00	Underutilization	*	
	Hispanic	0.01%	0.13%	3.86	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	5.91%	5.44%	108.54	Overutilization		
	Nonminority	1.15%	4.52%	25.51	Underutilization	*	
	TOTAL M/WBE	7.06%	9.96%	70.90	Underutilization	*	
	Non-M/WBE	92.94%	90.04%	103.22	Overutilization		
2020	Black American	5.36%	5.05%	106.19	Overutilization		
	Asian American	0.00%	0.27%	0.00	Underutilization	*	
	Hispanic	0.00%	0.13%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	5.36%	5.44%	98.42	Underutilization		
	Nonminority	0.60%	4.52%	13.18	Underutilization	*	
	TOTAL M/WBE	5.95%	9.96%	59.78	Underutilization	*	
	Non-M/WBE	94.05%	90.04%	104.45	Overutilization		
Total	Black American	4.89%	5.05%	96.90	Underutilization		
	Asian American	0.00%	0.27%	0.00	Underutilization	*	Small Number
	Hispanic	0.00%	0.13%	0.77	Underutilization	*	Small Number
	Native American	0.00%	0.00%	-	n/a		Small Number
	TOTAL MBE	4.89%	5.44%	89.83	Underutilization		
	Nonminority	0.82%	4.52%	18.19	Underutilization	*	p < .05
	TOTAL M/WBE	5.71%	9.96%	57.35	Underutilization	*	p < .05
	Non-M/WBE	94.29%	90.04%	104.72	Overutilization		

Griffin & Strong, P.C. 2022

APPENDIX D

**City of Cincinnati 2022 Disparity Study
Disparity Analysis of Total Utilization (Prime + Subcontract)
Distribution of Dollars by Business Ownership and Fiscal Year**

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

Table D-1
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year
Total Utilization, Construction
(Using Payment Dollars, CY 2016-2020)

Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	0.98%	12.48%	7.85	Underutilization	*	
	Asian American	2.68%	0.65%	411.74	Overutilization		
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	
	Native American	0.00%	0.13%	0.00	Underutilization	*	
	TOTAL MBE	3.66%	13.91%	26.29	Underutilization	*	
	Nonminority Female	2.21%	6.76%	32.68	Underutilization	*	
	TOTAL M/WBE	5.87%	20.68%	28.38	Underutilization	*	
2017	Non-M/WBE	94.13%	79.32%	118.67	Overutilization		
	Black American	12.12%	12.48%	97.12	Underutilization		
	Asian American	1.16%	0.65%	178.44	Overutilization		
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	
	Native American	0.00%	0.13%	0.00	Underutilization	*	
	TOTAL MBE	13.28%	13.91%	95.48	Underutilization		
	Nonminority Female	3.65%	6.76%	54.02	Underutilization	*	
2018	TOTAL M/WBE	16.94%	20.68%	81.92	Underutilization		
	Non-M/WBE	83.06%	79.32%	104.71	Overutilization		
	Black American	13.58%	12.48%	108.81	Overutilization		
	Asian American	1.87%	0.65%	287.00	Overutilization		
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	
	Native American	0.00%	0.13%	0.00	Underutilization	*	
	TOTAL MBE	15.45%	13.91%	111.03	Overutilization		
2019	Nonminority Female	7.23%	6.76%	106.99	Overutilization		
	TOTAL M/WBE	22.68%	20.68%	109.71	Overutilization		
	Non-M/WBE	77.32%	79.32%	97.47	Underutilization		
	Black American	15.57%	12.48%	124.70	Overutilization		
	Asian American	4.99%	0.65%	767.65	Overutilization		
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	
	Native American	0.00%	0.13%	0.00	Underutilization	*	
2020	TOTAL MBE	20.56%	13.91%	147.75	Overutilization		
	Nonminority Female	7.91%	6.76%	117.03	Overutilization		
	TOTAL M/WBE	28.47%	20.68%	137.71	Overutilization		
	Non-M/WBE	71.53%	79.32%	90.17	Underutilization		
	Black American	5.77%	12.48%	46.19	Underutilization	*	
	Asian American	1.54%	0.65%	237.51	Overutilization		
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	
Total	Native American	0.00%	0.13%	0.00	Underutilization	*	
	TOTAL MBE	7.31%	13.91%	52.54	Underutilization	*	
	Nonminority Female	4.56%	6.76%	67.43	Underutilization	*	
	TOTAL M/WBE	11.87%	20.68%	57.41	Underutilization	*	
	Non-M/WBE	88.13%	79.32%	111.10	Overutilization		
	Black American	9.89%	12.48%	79.23	Underutilization	*	
	Asian American	2.38%	0.65%	365.74	Overutilization		
Total	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	p <.05
	Native American	0.00%	0.13%	0.00	Underutilization	*	Small Number
	TOTAL MBE	12.27%	13.91%	88.18	Underutilization		
	Nonminority Female	5.22%	6.76%	77.24	Underutilization	*	p <.05
	TOTAL M/WBE	17.49%	20.68%	84.60	Underutilization		
Non-M/WBE	82.51%	79.32%	104.01	Overutilization			

Griffin & Strong, P.C. 2022

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

**Table D-2
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year
Total Utilization, A&E
(Using Payment Dollars, CY 2016-2020)**

Fiscal Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	2.38%	7.69%	30.93	Underutilization	*	
	Asian American	7.91%	3.55%	222.81	Overutilization		
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	10.29%	13.61%	75.61	Underutilization	*	
	Nonminority Female	0.97%	10.65%	9.09	Underutilization	*	
	TOTAL M/WBE	11.26%	24.26%	46.41	Underutilization	*	
2017	Black American	0.26%	7.69%	3.44	Underutilization	*	
	Asian American	11.77%	3.55%	331.64	Overutilization		
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	12.04%	13.61%	88.46	Underutilization		
	Nonminority Female	0.84%	10.65%	7.88	Underutilization	*	
	TOTAL M/WBE	12.88%	24.26%	53.08	Underutilization	*	
2018	Black American	0.00%	7.69%	0.00	Underutilization	*	
	Asian American	12.27%	3.55%	345.58	Overutilization		
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	12.27%	13.61%	90.15	Underutilization		
	Nonminority Female	1.93%	10.65%	18.14	Underutilization	*	
	TOTAL M/WBE	14.20%	24.26%	58.54	Underutilization	*	
2019	Black American	0.00%	7.69%	0.00	Underutilization	*	
	Asian American	15.63%	3.55%	440.21	Overutilization		
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	15.63%	13.61%	114.84	Overutilization		
	Nonminority Female	0.70%	10.65%	6.53	Underutilization	*	
	TOTAL M/WBE	16.32%	24.26%	67.29	Underutilization	*	
2020	Black American	0.16%	7.69%	2.14	Underutilization	*	
	Asian American	11.24%	3.55%	316.51	Overutilization		
	Hispanic American	5.72%	2.37%	241.67	Overutilization		
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	17.12%	13.61%	125.81	Overutilization		
	Nonminority Female	0.13%	10.65%	1.24	Underutilization	*	
	TOTAL M/WBE	17.25%	24.26%	71.12	Underutilization	*	
Total	Black American	0.51%	7.69%	6.65	Underutilization	*	p < .05
	Asian American	11.64%	3.55%	327.90	Overutilization		
	Hispanic American	1.37%	2.37%	57.89	Underutilization	*	p < .05
	Native American	0.00%	0.00%	-	n/a		Small Number
	TOTAL MBE	13.52%	13.61%	99.36	Underutilization		
	Nonminority Female	0.86%	10.65%	8.04	Underutilization	*	p < .05
	TOTAL M/WBE	14.38%	24.26%	59.27	Underutilization	*	p < .05
	Non-M/WBE	85.62%	75.74%	113.05	Overutilization		

Griffin & Strong, P.C. 2022

APPENDIX E

**City of Cincinnati 2022 Disparity Study
Disparity Analysis of Prime Data (Less than \$ 1 million Contracts)
Distribution of Dollars by Business Ownership and Fiscal Year**

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

**Table E-1
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year
Prime Construction (Less than \$1 million Contracts)
(Using Payment Dollars, CY 2016-2020)**

Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	3.41%	12.48%	27.34	Underutilization	*	
	Asian American	0.00%	0.65%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	
	Native American	0.00%	0.13%	0.00	Underutilization	*	
	TOTAL MBE	3.41%	13.91%	24.53	Underutilization	*	
	Nonminority Female	1.69%	6.76%	25.05	Underutilization	*	
	TOTAL M/WBE	5.11%	20.68%	24.70	Underutilization	*	
2017	Black American	10.49%	12.48%	84.01	Underutilization		
	Asian American	0.00%	0.65%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	
	Native American	0.00%	0.13%	0.00	Underutilization	*	
	TOTAL MBE	10.49%	13.91%	75.37	Underutilization	*	
	Nonminority Female	5.54%	6.76%	81.90	Underutilization		
	TOTAL M/WBE	16.03%	20.68%	77.51	Underutilization	*	
2018	Black American	4.38%	12.48%	35.12	Underutilization	*	
	Asian American	0.00%	0.65%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	
	Native American	0.00%	0.13%	0.00	Underutilization	*	
	TOTAL MBE	4.38%	13.91%	31.51	Underutilization	*	
	Nonminority Female	6.66%	6.76%	98.51	Underutilization		
	TOTAL M/WBE	11.05%	20.68%	53.42	Underutilization	*	
2019	Black American	5.62%	12.48%	45.01	Underutilization	*	
	Asian American	0.00%	0.65%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	
	Native American	0.00%	0.13%	0.00	Underutilization	*	
	TOTAL MBE	5.62%	13.91%	40.38	Underutilization	*	
	Nonminority Female	5.46%	6.76%	80.80	Underutilization		
	TOTAL M/WBE	11.08%	20.68%	53.60	Underutilization	*	
2020	Black American	0.87%	12.48%	7.00	Underutilization	*	
	Asian American	0.00%	0.65%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	
	Native American	0.00%	0.13%	0.00	Underutilization	*	
	TOTAL MBE	0.87%	13.91%	6.28	Underutilization	*	
	Nonminority Female	3.46%	6.76%	51.10	Underutilization	*	
	TOTAL M/WBE	4.33%	20.68%	20.94	Underutilization	*	
Total	Black American	95.67%	79.32%	120.61	Overutilization		
	Black American	4.32%	12.48%	34.58	Underutilization	*	p <.05
	Asian American	0.00%	0.65%	0.00	Underutilization	*	p <.05
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	p <.05
	Native American	0.00%	0.13%	0.00	Underutilization	*	Small Number
	TOTAL MBE	4.32%	13.91%	31.03	Underutilization	*	p <.05
	Nonminority Female	4.17%	6.76%	61.63	Underutilization	*	p <.05
TOTAL M/WBE	8.48%	20.68%	41.04	Underutilization	*	p <.05	
	Non-M/WBE	91.52%	79.32%	115.37	Overutilization		

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CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

**Table E-2
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year
Prime A&E (Less than \$1 million Contracts)
(Using Payment Dollars, CY 2016-2020)**

Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	2.52%	7.69%	32.71	Underutilization	*	
	Asian American	2.29%	3.55%	64.64	Underutilization	*	
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	4.81%	13.61%	35.35	Underutilization	*	
	Nonminority Female	1.03%	10.65%	9.64	Underutilization	*	
	TOTAL M/WBE	5.84%	24.26%	24.07	Underutilization	*	
2017	Black American	0.14%	7.69%	1.79	Underutilization	*	
	Asian American	2.69%	3.55%	75.86	Underutilization	*	
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	2.83%	13.61%	20.80	Underutilization	*	
	Nonminority Female	0.92%	10.65%	8.67	Underutilization	*	
	TOTAL M/WBE	3.75%	24.26%	15.48	Underutilization	*	
2018	Black American	0.00%	7.69%	0.00	Underutilization	*	
	Asian American	0.87%	3.55%	24.62	Underutilization	*	
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	0.87%	13.61%	6.42	Underutilization	*	
	Nonminority Female	2.18%	10.65%	20.47	Underutilization	*	
	TOTAL M/WBE	3.05%	24.26%	12.59	Underutilization	*	
2019	Black American	0.00%	7.69%	0.00	Underutilization	*	
	Asian American	2.11%	3.55%	59.32	Underutilization	*	
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	2.11%	13.61%	15.47	Underutilization	*	
	Nonminority Female	0.81%	10.65%	7.58	Underutilization	*	
	TOTAL M/WBE	2.91%	24.26%	12.01	Underutilization	*	
2020	Black American	0.16%	7.69%	2.14	Underutilization	*	
	Asian American	11.24%	3.55%	316.57	Overutilization		
	Hispanic American	5.72%	2.37%	241.71	Overutilization		
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	17.12%	13.61%	125.83	Overutilization		
	Nonminority Female	0.13%	10.65%	1.24	Underutilization	*	
	TOTAL M/WBE	17.26%	24.26%	71.13	Underutilization	*	
Total	Black American	0.51%	7.69%	6.62	Underutilization	*	p < .05
	Asian American	4.46%	3.55%	125.65	Overutilization		
	Hispanic American	1.48%	2.37%	62.54	Underutilization	*	p < .05
	Native American	0.00%	0.00%	-	n/a		Small Number
	TOTAL MBE	6.45%	13.61%	47.40	Underutilization	*	p < .05
	Nonminority Female	0.93%	10.65%	8.69	Underutilization	*	p < .05
	TOTAL M/WBE	7.38%	24.26%	30.40	Underutilization	*	p < .05
	Non-M/WBE	92.62%	75.74%	122.29	Overutilization		

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CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

**Table E-3
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year
Prime Professional Services (Less than \$1 million Contracts)
(Using Payment Dollars, CY 2016-2020)**

Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	5.02%	12.37%	40.61	Underutilization	*	
	Asian American	0.00%	1.03%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	5.02%	13.66%	36.78	Underutilization	*	
	Nonminority Female	11.27%	6.44%	174.90	Overutilization		
	TOTAL M/WBE	16.29%	20.10%	81.05	Underutilization		
2017	Black American	1.78%	12.37%	14.38	Underutilization	*	
	Asian American	0.00%	1.03%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	1.78%	13.66%	13.02	Underutilization	*	
	Nonminority Female	5.48%	6.44%	85.10	Underutilization		
	TOTAL M/WBE	7.26%	20.10%	36.12	Underutilization	*	
2018	Black American	2.12%	12.37%	17.17	Underutilization	*	
	Asian American	0.00%	1.03%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	2.12%	13.66%	15.55	Underutilization	*	
	Nonminority Female	1.04%	6.44%	16.13	Underutilization	*	
	TOTAL M/WBE	3.16%	20.10%	15.73	Underutilization	*	
2019	Black American	2.69%	12.37%	21.75	Underutilization	*	
	Asian American	0.00%	1.03%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	2.69%	13.66%	19.70	Underutilization	*	
	Nonminority Female	0.95%	6.44%	14.81	Underutilization	*	
	TOTAL M/WBE	3.64%	20.10%	18.13	Underutilization	*	
2020	Black American	1.98%	12.37%	16.04	Underutilization	*	
	Asian American	0.00%	1.03%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	1.98%	13.66%	14.52	Underutilization	*	
	Nonminority Female	1.40%	6.44%	21.80	Underutilization	*	
	TOTAL M/WBE	3.39%	20.10%	16.86	Underutilization	*	
Total	Black American	2.75%	12.37%	22.20	Underutilization	*	p < .05
	Asian American	0.00%	1.03%	0.00	Underutilization	*	p < .05
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	p < .05
	Native American	0.00%	0.00%	-	n/a		Small Number
	TOTAL MBE	2.75%	13.66%	20.10	Underutilization	*	p < .05
	Nonminority Female	4.22%	6.44%	65.52	Underutilization	*	p < .05
	TOTAL M/WBE	6.97%	20.10%	34.66	Underutilization	*	p < .05
	Non-M/WBE	93.03%	79.90%	116.44	Overutilization		

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CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

Table E-4
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year
Prime Other Services (Less than \$1 million Contracts)
(Using Payment Dollars, CY 2016-2020)

Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	4.27%	10.45%	40.83	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.32%	0.00	Underutilization	*	
	Native American	0.00%	0.08%	0.00	Underutilization	*	
	TOTAL MBE	4.27%	11.58%	36.86	Underutilization	*	
	Nonminority Female	4.01%	3.54%	113.32	Overutilization		
	TOTAL M/WBE	8.27%	15.11%	54.75	Underutilization	*	
2017	Black American	6.24%	10.45%	59.70	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.32%	0.00	Underutilization	*	
	Native American	0.00%	0.08%	0.00	Underutilization	*	
	TOTAL MBE	6.24%	11.58%	53.89	Underutilization	*	
	Nonminority Female	4.39%	3.54%	124.06	Overutilization		
	TOTAL M/WBE	10.63%	15.11%	70.32	Underutilization	*	
2018	Black American	4.98%	10.45%	47.68	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.32%	0.00	Underutilization	*	
	Native American	0.00%	0.08%	0.00	Underutilization	*	
	TOTAL MBE	4.98%	11.58%	43.05	Underutilization	*	
	Nonminority Female	3.06%	3.54%	86.52	Underutilization		
	TOTAL M/WBE	8.04%	15.11%	53.22	Underutilization	*	
2019	Black American	4.57%	10.45%	43.76	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.32%	0.00	Underutilization	*	
	Native American	0.00%	0.08%	0.00	Underutilization	*	
	TOTAL MBE	4.57%	11.58%	39.51	Underutilization	*	
	Nonminority Female	2.21%	3.54%	62.43	Underutilization	*	
	TOTAL M/WBE	6.78%	15.11%	44.88	Underutilization	*	
2020	Black American	4.52%	10.45%	43.27	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.32%	0.00	Underutilization	*	
	Native American	0.00%	0.08%	0.00	Underutilization	*	
	TOTAL MBE	4.52%	11.58%	39.06	Underutilization	*	
	Nonminority Female	4.77%	3.54%	134.86	Overutilization		
	TOTAL M/WBE	9.29%	15.11%	61.48	Underutilization	*	
Total	Black American	4.86%	10.45%	46.47	Underutilization	*	p < .05
	Asian American	0.00%	0.72%	0.00	Underutilization	*	p < .05
	Hispanic American	0.00%	0.32%	0.00	Underutilization	*	p < .05
	Native American	0.00%	0.08%	0.00	Underutilization	*	Small Number
	TOTAL MBE	4.86%	11.58%	41.95	Underutilization	*	p < .05
	Nonminority Female	3.75%	3.54%	106.09	Overutilization		
	TOTAL M/WBE	8.61%	15.11%	56.96	Underutilization	*	p < .05
	Non-M/WBE	91.39%	84.89%	107.66	Overutilization		

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CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

**Table E-5
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year
Prime Goods (Less than \$1 million Contracts)
(Using Payment Dollars, CY 2016-2020)**

	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	4.46%	5.05%	88.31	Underutilization		
	Asian American	0.00%	0.27%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.13%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	4.46%	5.44%	81.85	Underutilization		
	Nonminority Female	1.35%	4.52%	29.89	Underutilization	*	
	TOTAL M/WBE	5.81%	9.96%	58.30	Underutilization	*	
	Non-M/WBE	94.19%	90.04%	104.61	Overutilization		
2017	Black American	4.72%	5.05%	93.57	Underutilization		
	Asian American	0.00%	0.27%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.13%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	4.72%	5.44%	86.72	Underutilization		
	Nonminority Female	1.73%	4.52%	38.26	Underutilization	*	
	TOTAL M/WBE	6.45%	9.96%	64.75	Underutilization	*	
	Non-M/WBE	93.55%	90.04%	103.90	Overutilization		
2018	Black American	0.00%	5.05%	0.00	Underutilization	*	
	Asian American	#REF!	0.27%	-	n/a		
	Hispanic American	0.00%	0.13%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	2.49%	5.44%	45.75	Underutilization	*	
	Nonminority Female	2.86%	4.52%	63.40	Underutilization	*	
	TOTAL M/WBE	5.35%	9.96%	53.75	Underutilization	*	
	Non-M/WBE	94.65%	90.04%	105.12	Overutilization		
2019	Black American	2.81%	5.05%	55.61	Underutilization	*	
	Asian American	0.00%	0.27%	0.00	Underutilization	*	
	Hispanic American	0.02%	0.13%	12.15	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	2.82%	5.44%	51.84	Underutilization	*	
	Nonminority Female	3.63%	4.52%	80.30	Underutilization		
	TOTAL M/WBE	6.45%	9.96%	64.74	Underutilization	*	
	Non-M/WBE	93.55%	90.04%	103.90	Overutilization		
2020	Black American	5.61%	5.05%	111.17	Overutilization		
	Asian American	0.00%	0.27%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.13%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	5.61%	5.44%	103.04	Overutilization		
	Nonminority Female	1.45%	4.52%	32.18	Underutilization	*	
	TOTAL M/WBE	7.06%	9.96%	70.92	Underutilization	*	
	Non-M/WBE	92.94%	90.04%	103.22	Overutilization		
Total	Black American	4.21%	5.05%	83.48	Underutilization		
	Asian American	0.00%	0.27%	0.00	Underutilization	*	Small Number
	Hispanic American	0.00%	0.13%	1.89	Underutilization	*	Small Number
	Native American	0.00%	0.00%	-	n/a		Small Number
	TOTAL MBE	4.22%	5.44%	77.41	Underutilization	*	p < .05
	Nonminority Female	2.02%	4.52%	44.71	Underutilization	*	p < .05
	TOTAL M/WBE	6.23%	9.96%	62.59	Underutilization	*	p < .05
	Non-M/WBE	93.77%	90.04%	104.14	Overutilization		

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APPENDIX F

**City of Cincinnati 2022 Disparity Study
Disparity Analysis of Prime Data (Less than \$ 500K Contracts)
Distribution of Dollars by Business Ownership and Fiscal Year**

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

**Table F-1
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year
Prime Construction (Less than \$500K Contracts)
(Using Payment Dollars, CY 2016-2020)**

Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	8.02%	12.48%	64.27	Underutilization	*	
	Asian American	0.00%	0.65%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	
	Native American	0.00%	0.13%	0.00	Underutilization	*	
	TOTAL MBE	8.02%	13.91%	57.66	Underutilization	*	
	Nonminority Female	3.98%	6.76%	58.89	Underutilization	*	
	TOTAL M/WBE	12.01%	20.68%	58.06	Underutilization	*	
	Non-M/WBE	87.99%	79.32%	110.93	Overutilization		
2017	Black American	7.56%	12.48%	60.56	Underutilization	*	
	Asian American	0.00%	0.65%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	
	Native American	0.00%	0.13%	0.00	Underutilization	*	
	TOTAL MBE	7.56%	13.91%	54.34	Underutilization	*	
	Nonminority Female	10.73%	6.76%	158.68	Overutilization		
	TOTAL M/WBE	18.29%	20.68%	88.46	Underutilization		
	Non-M/WBE	81.71%	79.32%	103.01	Overutilization		
2018	Black American	6.18%	12.48%	49.53	Underutilization	*	
	Asian American	0.00%	0.65%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	
	Native American	0.00%	0.13%	0.00	Underutilization	*	
	TOTAL MBE	6.18%	13.91%	44.44	Underutilization	*	
	Nonminority Female	8.84%	6.76%	130.70	Overutilization		
	TOTAL M/WBE	15.02%	20.68%	72.65	Underutilization	*	
	Non-M/WBE	84.98%	79.32%	107.13	Overutilization		
2019	Black American	3.72%	12.48%	29.78	Underutilization	*	
	Asian American	0.00%	0.65%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	
	Native American	0.00%	0.13%	0.00	Underutilization	*	
	TOTAL MBE	3.72%	13.91%	26.72	Underutilization	*	
	Nonminority Female	8.53%	6.76%	126.09	Overutilization		
	TOTAL M/WBE	12.24%	20.68%	59.22	Underutilization	*	
	Non-M/WBE	87.76%	79.32%	110.63	Overutilization		
2020	Black American	1.43%	12.48%	11.43	Underutilization	*	
	Asian American	0.00%	0.65%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	
	Native American	0.00%	0.13%	0.00	Underutilization	*	
	TOTAL MBE	1.43%	13.91%	10.25	Underutilization	*	
	Nonminority Female	3.93%	6.76%	58.13	Underutilization	*	
	TOTAL M/WBE	5.36%	20.68%	25.91	Underutilization	*	
	Non-M/WBE	94.64%	79.32%	119.31	Overutilization		
Total	Black American	4.62%	12.48%	36.99	Underutilization	*	p <.05
	Asian American	0.00%	0.65%	0.00	Underutilization	*	p <.05
	Hispanic American	0.00%	0.65%	0.00	Underutilization	*	p <.05
	Native American	0.00%	0.13%	0.00	Underutilization	*	Small Number
	TOTAL MBE	4.62%	13.91%	33.18	Underutilization	*	p <.05
	Nonminority Female	6.57%	6.76%	97.22	Underutilization		
	TOTAL M/WBE	11.19%	20.68%	54.13	Underutilization	*	p <.05
	Non-M/WBE	88.81%	79.32%	111.96	Overutilization		

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CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

**Table F-2
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year
Prime A&E (Less than \$500K Contracts)
(Using Payment Dollars, CY 2016-2020)**

Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	3.07%	7.69%	39.97	Underutilization	*	
	Asian American	2.80%	3.55%	78.97	Underutilization	*	
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	5.88%	13.61%	43.19	Underutilization	*	
	Nonminority Female	1.26%	10.65%	11.78	Underutilization	*	
	TOTAL M/WBE	7.13%	24.26%	29.40	Underutilization	*	
	Non-M/WBE	92.87%	75.74%	122.61	Overutilization		
2017	Black American	0.20%	7.69%	2.55	Underutilization	*	
	Asian American	3.83%	3.55%	107.95	Overutilization		
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	4.03%	13.61%	29.60	Underutilization	*	
	Nonminority Female	1.31%	10.65%	12.34	Underutilization	*	
	TOTAL M/WBE	5.34%	24.26%	22.02	Underutilization	*	
	Non-M/WBE	94.66%	75.74%	124.98	Overutilization		
2018	Black American	0.00%	7.69%	0.00	Underutilization	*	
	Asian American	1.10%	3.55%	31.04	Underutilization	*	
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	1.10%	13.61%	8.10	Underutilization	*	
	Nonminority Female	2.75%	10.65%	25.80	Underutilization	*	
	TOTAL M/WBE	3.85%	24.26%	15.87	Underutilization	*	
	Non-M/WBE	96.15%	75.74%	126.95	Overutilization		
2019	Black American	0.00%	7.69%	0.00	Underutilization	*	
	Asian American	2.89%	3.55%	81.53	Underutilization		
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	2.89%	13.61%	21.27	Underutilization	*	
	Nonminority Female	1.11%	10.65%	10.42	Underutilization	*	
	TOTAL M/WBE	4.00%	24.26%	16.51	Underutilization	*	
	Non-M/WBE	96.00%	75.74%	126.74	Overutilization		
2020	Black American	0.20%	7.69%	2.60	Underutilization	*	
	Asian American	13.66%	3.55%	384.79	Overutilization		
	Hispanic American	6.95%	2.37%	293.80	Overutilization		
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	20.82%	13.61%	152.95	Overutilization		
	Nonminority Female	0.16%	10.65%	1.51	Underutilization	*	
	TOTAL M/WBE	20.98%	24.26%	86.46	Underutilization		
	Non-M/WBE	79.02%	75.74%	104.34	Overutilization		
Total	Black American	0.66%	7.69%	8.58	Underutilization	*	p < .05
	Asian American	5.78%	3.55%	162.84	Overutilization		
	Hispanic American	1.92%	2.37%	81.05	Underutilization		
	Native American	0.00%	0.00%	-	n/a		Small Number
	TOTAL MBE	8.36%	13.61%	61.42	Underutilization	*	
	Nonminority Female	1.20%	10.65%	11.26	Underutilization	*	p < .05
	TOTAL M/WBE	9.56%	24.26%	39.40	Underutilization	*	p < .05
	Non-M/WBE	90.44%	75.74%	119.41	Overutilization		

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CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

**Table F-3
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year
Prime Professional Services (Less than \$500K Contracts)
(Using Payment Dollars, CY 2016-2020)**

Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	5.77%	12.37%	46.66	Underutilization	*	
	Asian American	0.00%	1.03%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	5.77%	13.66%	42.26	Underutilization	*	
	Nonminority Female	2.03%	6.44%	31.55	Underutilization	*	
	TOTAL M/WBE	7.81%	20.10%	38.83	Underutilization	*	
	Non-M/WBE	92.19%	79.90%	115.39	Overutilization		
2017	Black American	2.82%	12.37%	22.79	Underutilization	*	
	Asian American	0.00%	1.03%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	2.82%	13.66%	20.64	Underutilization	*	
	Nonminority Female	8.65%	6.44%	134.19	Overutilization		
	TOTAL M/WBE	11.47%	20.10%	57.03	Underutilization	*	
	Non-M/WBE	88.53%	79.90%	110.81	Overutilization		
2018	Black American	2.89%	12.37%	23.39	Underutilization	*	
	Asian American	0.00%	1.03%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	2.89%	13.66%	21.18	Underutilization	*	
	Nonminority Female	1.42%	6.44%	21.98	Underutilization	*	
	TOTAL M/WBE	4.31%	20.10%	21.44	Underutilization	*	
	Non-M/WBE	95.69%	79.90%	119.77	Overutilization		
2019	Black American	3.70%	12.37%	29.87	Underutilization	*	
	Asian American	0.00%	1.03%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	3.70%	13.66%	27.05	Underutilization	*	
	Nonminority Female	1.31%	6.44%	20.34	Underutilization	*	
	TOTAL M/WBE	5.01%	20.10%	24.90	Underutilization	*	
	Non-M/WBE	94.99%	79.90%	118.90	Overutilization		
2020	Black American	2.28%	12.37%	18.47	Underutilization	*	
	Asian American	0.00%	1.03%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	2.28%	13.66%	16.73	Underutilization	*	
	Nonminority Female	1.62%	6.44%	25.11	Underutilization	*	
	TOTAL M/WBE	3.90%	20.10%	19.41	Underutilization	*	
	Non-M/WBE	96.10%	79.90%	120.28	Overutilization		
Total	Black American	3.62%	12.37%	29.23	Underutilization	*	p < .05
	Asian American	0.00%	1.03%	0.00	Underutilization	*	p < .05
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	p < .05
	Native American	0.00%	0.00%	-	n/a		Small Number
	TOTAL MBE	3.62%	13.66%	26.47	Underutilization	*	p < .05
	Nonminority Female	2.96%	6.44%	45.95	Underutilization	*	p < .05
	TOTAL M/WBE	6.58%	20.10%	32.71	Underutilization	*	p < .05
	Non-M/WBE	93.42%	79.90%	116.93	Overutilization		

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CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

**Table F-4
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year
Prime Other Services (Less than \$500K Contracts)
(Using Payment Dollars, FY 2016-2020)**

Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	2.67%	10.45%	25.58	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.32%	0.00	Underutilization	*	
	Native American	0.00%	0.08%	0.00	Underutilization	*	
	TOTAL MBE	2.67%	11.58%	23.10	Underutilization	*	
	Nonminority Female	3.99%	3.54%	112.89	Overutilization		
	TOTAL M/WBE	6.67%	15.11%	44.11	Underutilization	*	
2017	Black American	5.90%	10.45%	56.45	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.32%	0.00	Underutilization	*	
	Native American	0.00%	0.08%	0.00	Underutilization	*	
	TOTAL MBE	5.90%	11.58%	50.97	Underutilization	*	
	Nonminority Female	4.30%	3.54%	121.62	Overutilization		
	TOTAL M/WBE	10.20%	15.11%	67.50	Underutilization	*	
2018	Black American	6.43%	10.45%	61.54	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.32%	0.00	Underutilization	*	
	Native American	0.00%	0.08%	0.00	Underutilization	*	
	TOTAL MBE	6.43%	11.58%	55.56	Underutilization	*	
	Nonminority Female	2.43%	3.54%	68.63	Underutilization	*	
	TOTAL M/WBE	8.86%	15.11%	58.62	Underutilization	*	
2019	Black American	4.30%	10.45%	41.10	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.32%	0.00	Underutilization	*	
	Native American	0.00%	0.08%	0.00	Underutilization	*	
	TOTAL MBE	4.30%	11.58%	37.11	Underutilization	*	
	Nonminority Female	1.62%	3.54%	45.70	Underutilization	*	
	TOTAL M/WBE	5.91%	15.11%	39.12	Underutilization	*	
2020	Black American	6.70%	10.45%	64.10	Underutilization	*	
	Asian American	0.00%	0.72%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.32%	0.00	Underutilization	*	
	Native American	0.00%	0.08%	0.00	Underutilization	*	
	TOTAL MBE	6.70%	11.58%	57.87	Underutilization	*	
	Nonminority Female	6.26%	3.54%	176.98	Overutilization		
	TOTAL M/WBE	12.96%	15.11%	85.75	Underutilization		
Total	Black American	5.09%	10.45%	48.70	Underutilization	*	p < .05
	Asian American	0.00%	0.72%	0.00	Underutilization	*	p < .05
	Hispanic American	0.00%	0.32%	0.00	Underutilization	*	p < .05
	Native American	0.00%	0.08%	0.00	Underutilization	*	Small Number
	TOTAL MBE	5.09%	11.58%	43.96	Underutilization	*	p < .05
	Nonminority Female	3.90%	3.54%	110.19	Overutilization		
	TOTAL M/WBE	8.99%	15.11%	59.46	Underutilization	*	p < .05
	Non-M/WBE	91.01%	84.89%	107.22	Overutilization		

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CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

**Table F-5
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year
Prime Goods (Less than \$500K Contracts)
(Using Payment Dollars, FY 2016-2020)**

Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	5.95%	5.05%	117.95	Overutilization		
	Asian American	0.00%	0.27%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.13%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	5.95%	5.44%	109.32	Overutilization		
	Nonminority Female	1.84%	4.52%	40.86	Underutilization	*	
	TOTAL M/WBE	7.80%	9.96%	78.28	Underutilization	*	
	Non-M/WBE	92.20%	90.04%	102.40	Overutilization		
2017	Black American	2.65%	5.05%	52.43	Underutilization	*	
	Asian American	0.00%	0.27%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.13%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	2.65%	5.44%	48.59	Underutilization	*	
	Nonminority Female	2.68%	4.52%	59.44	Underutilization	*	
	TOTAL M/WBE	5.33%	9.96%	53.51	Underutilization	*	
	Non-M/WBE	94.67%	90.04%	105.14	Overutilization		
2018	Black American	0.00%	5.05%	0.00	Underutilization	*	
	Asian American	#REF!	0.27%	-	n/a		
	Hispanic American	0.00%	0.13%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	3.48%	5.44%	63.91	Underutilization	*	
	Nonminority Female	4.05%	4.52%	89.67	Underutilization	*	
	TOTAL M/WBE	7.53%	9.96%	75.59	Underutilization	*	
	Non-M/WBE	92.47%	90.04%	102.70	Overutilization		
2019	Black American	0.88%	5.05%	17.37	Underutilization	*	
	Asian American	0.00%	0.27%	0.00	Underutilization	*	
	Hispanic American	0.02%	0.13%	17.33	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	0.90%	5.44%	16.52	Underutilization	*	
	Nonminority Female	5.17%	4.52%	114.56	Overutilization		
	TOTAL M/WBE	6.07%	9.96%	60.96	Underutilization	*	
	Non-M/WBE	93.93%	90.04%	104.32	Overutilization		
2020	Black American	0.22%	5.05%	4.41	Underutilization	*	
	Asian American	0.00%	0.27%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.13%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	0.22%	5.44%	4.09	Underutilization	*	
	Nonminority Female	2.23%	4.52%	49.41	Underutilization	*	
	TOTAL M/WBE	2.45%	9.96%	24.63	Underutilization	*	
	Non-M/WBE	97.55%	90.04%	108.34	Overutilization		
Total	Black American	3.05%	5.05%	60.39	Underutilization	*	p < .05
	Asian American	0.00%	0.27%	0.00	Underutilization	*	Small Number
	Hispanic American	0.00%	0.13%	2.75	Underutilization	*	Small Number
	Native American	0.00%	0.00%	-	n/a		Small Number
	TOTAL MBE	3.05%	5.44%	56.03	Underutilization	*	p < .05
	Nonminority Female	2.94%	4.52%	65.05	Underutilization	*	p < .05
	TOTAL M/WBE	5.99%	9.96%	60.12	Underutilization	*	p < .05
	Non-M/WBE	94.01%	90.04%	104.41	Overutilization		

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APPENDIX G

**City of Cincinnati 2022 Disparity Study
Utilization of Prime Payments Based on Certified and Non-Certified
Minority and Women Owned Firms**

Table G-1
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year by Gender and Ethnicity,
Prime Construction
Based on Certified and Non-certified M/WBE firms
(Using Payment Dollars, CY 2016-2020)

Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Black American	\$ 730,403	\$ 1,536,953	\$ 1,688,180	\$ 1,658,494	\$ 246,973	\$ 5,861,003
Asian American	\$ -	\$ -	\$ -	\$ -	\$ 162,322	\$ 162,322
Hispanic American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL MINORITY	\$ 730,403	\$ 1,536,953	\$ 1,688,180	\$ 1,658,494	\$ 409,295	\$ 6,023,326
Nonminority Female	\$ 362,487	\$ 1,089,451	\$ 756,590	\$ 1,067,948	\$ 976,002	\$ 4,252,478
TOTAL M/WBE	\$ 1,092,890	\$ 2,626,404	\$ 2,444,770	\$ 2,726,442	\$ 1,385,297	\$ 10,275,804
NON-M/WBE	\$ 61,288,588	\$ 72,161,453	\$ 82,565,013	\$ 66,045,738	\$ 75,100,017	\$357,160,809
TOTAL FIRMS	\$ 62,381,478	\$ 74,787,858	\$ 85,009,783	\$ 68,772,180	\$ 76,485,313	\$367,436,612
Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
Black American	1.17%	2.06%	1.99%	2.41%	0.32%	1.60%
Asian American	0.00%	0.00%	0.00%	0.00%	0.21%	0.04%
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	1.17%	2.06%	1.99%	2.41%	0.54%	1.64%
Nonminority Female	0.58%	1.46%	0.89%	1.55%	1.28%	1.16%
TOTAL M/WBE	1.75%	3.51%	2.88%	3.96%	1.81%	2.80%
NON-M/WBE	98.25%	96.49%	97.12%	96.04%	98.19%	97.20%
TOTAL FIRMS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

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Table G-2
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year by Gender and Ethnicity,
Prime Architectural & Engineering
Based on Certified and Non-certified M/WBE firms
(Using Payment Dollars, CY 2016-2020)

Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Black American	\$ 61,900	\$ 5,438	\$ -	\$ -	\$ 6,150	\$ 73,488
Asian American	\$ 206,449	\$ 499,129	\$ 319,399	\$ 352,970	\$ 419,588	\$ 1,797,534
Hispanic American	\$ -	\$ -	\$ -	\$ -	\$ 213,581	\$ 213,581
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL MINORITY	\$ 268,349	\$ 504,567	\$ 319,399	\$ 352,970	\$ 639,319	\$ 2,084,603
Nonminority Female	\$ 182,735	\$ 396,935	\$ 379,036	\$ 213,266	\$ 483,438	\$ 1,655,411
TOTAL M/WBE	\$ 451,084	\$ 901,502	\$ 698,435	\$ 566,236	\$1,122,757	\$ 3,740,014
NON-M/WBE	\$2,158,767	\$3,431,979	\$1,953,767	\$1,692,202	\$2,611,198	\$11,847,913
TOTAL FIRMS	\$2,609,851	\$4,333,481	\$2,652,202	\$2,258,437	\$3,733,956	\$15,587,927
Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
Black American	2.37%	0.13%	0.00%	0.00%	0.16%	0.47%
Asian American	7.91%	11.52%	12.04%	15.63%	11.24%	11.53%
Hispanic American	0.00%	0.00%	0.00%	0.00%	5.72%	1.37%
Native American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
TOTAL MINORITY	10.28%	11.64%	12.04%	15.63%	17.12%	13.37%
Nonminority Female	7.00%	9.16%	14.29%	9.44%	12.95%	10.62%
TOTAL M/WBE	17.28%	20.80%	26.33%	25.07%	30.07%	23.99%
NON-M/WBE	82.72%	79.20%	73.67%	74.93%	69.93%	76.01%
TOTAL FIRMS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

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Table G-3
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year by Gender and Ethnicity
Prime Professional Services
Based on Certified and Non-certified M/WBE firms
(Using Payment Dollars, CY 2016-2020)

Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Black American	\$ 348,134	\$ 2,673,593	\$ 1,389,626	\$ 1,017,599	\$ 196,429	\$ 5,625,381
Asian American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hispanic American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL MINORITY	\$ 348,134	\$ 2,673,593	\$ 1,389,626	\$ 1,017,599	\$ 196,429	\$ 5,625,381
Nonminority Female	\$ 700,603	\$ 379,111	\$ 149,681	\$ 337,979	\$ 253,881	\$ 1,821,256
TOTAL M/WBE	\$1,048,737	\$ 3,052,704	\$ 1,539,307	\$ 1,355,579	\$ 450,310	\$ 7,446,637
NON-M/WBE	\$8,782,374	\$11,055,723	\$11,103,268	\$12,691,291	\$7,612,110	\$51,244,766
TOTAL FIRMS	\$9,831,112	\$14,108,427	\$12,642,575	\$14,046,870	\$8,062,420	\$58,691,403
Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
Black American	3.54%	18.95%	10.99%	7.24%	2.44%	9.58%
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	3.54%	18.95%	10.99%	7.24%	2.44%	9.58%
Nonminority Female	7.13%	2.69%	1.18%	2.41%	3.15%	3.10%
TOTAL M/WBE	10.67%	21.64%	12.18%	9.65%	5.59%	12.69%
NON-M/WBE	89.33%	78.36%	87.82%	90.35%	94.41%	87.31%
TOTAL FIRMS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

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Table G-4
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year by Gender and Ethnicity,
Prime Other Services
Based on Certified and Non-certified M/WBE firms
(Using Payment Dollars, CY 2016-2020)

Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Black American	\$ 827,552	\$ 1,550,640	\$ 1,269,664	\$ 1,500,425	\$ 1,375,132	\$ 6,523,413
Asian American	\$ 68,854	\$ 90,917	\$ 76,041	\$ 29,277	\$ 708,593	\$ 973,683
Hispanic American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL MINORITY	\$ 896,406	\$ 1,641,557	\$ 1,345,705	\$ 1,529,702	\$ 2,083,725	\$ 7,497,096
Nonminority Female	\$ 2,369,574	\$ 967,776	\$ 893,236	\$ 820,511	\$ 980,516	\$ 6,031,613
TOTAL M/WBE	\$ 3,265,980	\$ 2,609,333	\$ 2,238,941	\$ 2,350,213	\$ 3,064,241	\$ 13,528,708
NON-M/WBE	\$42,408,844	\$38,118,278	\$37,045,645	\$41,158,135	\$40,237,394	\$198,968,297
TOTAL FIRMS	\$45,674,825	\$40,727,612	\$39,284,586	\$43,508,348	\$43,301,635	\$212,497,005
Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
Black American	1.81%	3.81%	3.23%	3.45%	3.18%	3.07%
Asian American	0.15%	0.22%	0.19%	0.07%	1.64%	0.46%
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	1.96%	4.03%	3.43%	3.52%	4.81%	3.53%
Nonminority Female	5.19%	2.38%	2.27%	1.89%	2.26%	2.84%
TOTAL M/WBE	7.15%	6.41%	5.70%	5.40%	7.08%	6.37%
NON-M/WBE	92.85%	93.59%	94.30%	94.60%	92.92%	93.63%
TOTAL FIRMS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

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Table G-5
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year by Gender and Ethnicity,
Prime Goods
Based on Certified and Non-certified M/WBE firms
(Using Payment Dollars, CY 2016-2020)

Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Black American	\$ 1,212,432	\$ 1,652,626	\$ 1,796,172	\$ 1,996,421	\$ 1,675,059	\$ 8,332,710
Asian American	\$ -	\$ -	\$ -	\$ -	\$ 628	\$ 628
Hispanic American	\$ -	\$ -	\$ -	\$ 1,732	\$ -	\$ 1,732
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL MINORITY	\$ 1,212,432	\$ 1,652,626	\$ 1,796,172	\$ 1,998,153	\$ 1,675,686	\$ 8,335,069
Nonminority Female	\$ 277,122	\$ 299,216	\$ 284,096	\$ 440,337	\$ 210,460	\$ 1,511,231
TOTAL M/WBE	\$ 1,489,553	\$ 1,951,842	\$ 2,080,268	\$ 2,438,490	\$ 1,886,147	\$ 9,846,300
NON-M/WBE	\$34,513,193	\$34,899,205	\$30,399,641	\$31,371,370	\$29,371,707	\$160,555,116
TOTAL FIRMS	\$36,002,746	\$36,851,047	\$32,479,909	\$33,809,861	\$31,257,854	\$170,401,416
Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
Black American	3.37%	4.48%	0.00%	5.90%	5.36%	4.89%
Asian American	0.00%	0.00%	#REF!	0.00%	0.00%	0.00%
Hispanic American	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%
Native American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
TOTAL MINORITY	3.37%	4.48%	5.53%	5.91%	5.36%	4.89%
Nonminority Female	0.77%	0.81%	0.87%	1.30%	0.67%	0.89%
TOTAL M/WBE	4.14%	5.30%	6.40%	7.21%	6.03%	5.78%
NON-M/WBE	95.86%	94.70%	93.60%	92.79%	93.97%	94.22%
TOTAL FIRMS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

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APPENDIX H

**City of Cincinnati 2022 Disparity Study
Availability of Certified and Non-Certified
Minority and Women Owned Firms**

Table H-1
City of Cincinnati Disparity Study
Availability of Firms by Business Ownership in the Relevant Geographic Market Area, Construction
Based on Certified and Non-Certified Minority Owned Firms
CY 2016-2020

Business Ownership Classification	Number of Firms	Percent of Firms
Black American	126	16.38%
Asian American	7	0.91%
Hispanic American	8	1.04%
Native American	4	0.52%
TOTAL MBE	145	18.86%
Nonminority Female	64	8.32%
TOTAL M/WBE	209	27.18%
NON-M/WDBE	560	72.82%
TOTAL FIRMS	769	100.00%

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Table H-2
City of Cincinnati Disparity Study
Availability of Firms by Business Ownership in the Relevant Geographic Market Area, A&E
Based on Certified and Non-Certified Minority Owned Firms
CY 2016-2020

Business Ownership Classification	Number of Firms	Percent of Firms
Black American	14	8.28%
Asian American	7	4.14%
Hispanic American	4	2.37%
Native American	0	0.00%
TOTAL MBE	25	14.79%
Nonminority Female	21	12.43%
TOTAL M/WBE	46	27.22%
NON-M/WDBE	123	72.78%
TOTAL FIRMS	169	100.00%

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Table H-3
City of Cincinnati Disparity Study
Availability of Firms by Business Ownership in the Relevant Geographic Market Area,
Professional Services
Based on Certified and Non-Certified Minority Owned Firms
CY 2016-2020

Business Ownership Classification	Number of Firms	Percent of Firms
Black American	53	13.66%
Asian American	6	1.55%
Hispanic American	1	0.26%
Native American	0	0.00%
TOTAL MBE	60	15.46%
Nonminority Female	31	7.99%
TOTAL M/WBE	91	23.45%
NON-M/WDBE	297	76.55%
TOTAL FIRMS	388	100.00%

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Table H-4
City of Cincinnati Disparity Study
Availability of Firms by Business Ownership in the Relevant Geographic Market Area,
Other Services
Based on Certified and Non-Certified Minority Owned Firms
CY 2016-2020

Business Ownership Classification	Number of Firms	Percent of Firms
Black American	158	12.70%
Asian American	11	0.88%
Hispanic American	6	0.48%
Native American	1	0.08%
TOTAL MBE	176	14.15%
Nonminority Female	63	5.06%
TOTAL M/WBE	239	19.21%
NON-M/WDBE	1,005	80.79%
TOTAL FIRMS	1,244	100.00%

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Table H-5
City of Cincinnati Disparity Study
Availability of Firms by Business Ownership in the Relevant Geographic Market Area, Goods
Based on Certified and Non-Certified Minority Owned Firms
CY 2016-2020

Business Ownership Classification	Number of Firms	Percent of Firms
Black American	42	5.58%
Asian American	2	0.27%
Hispanic American	1	0.13%
Native American	0	0.00%
TOTAL MBE	45	5.98%
Nonminority Female	44	5.84%
TOTAL M/WBE	89	11.82%
NON-M/WDBE	664	88.18%
TOTAL FIRMS	753	100.00%

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APPENDIX I

**City of Cincinnati 2022 Disparity Study
Disparity Analysis of Prime
Data Based on Certified and Non-Certified Minority and Women Owned
Firms
CY 2016-2020**

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

Table I-1

**City of Cincinnati 2022 Disparity Study
Disparity Analysis of Prime, Construction
Data Based on Certified and Non-Certified Minority Owned Firms
CY 2016-2020**

Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	1.17%	16.38%	7.15	Underutilization	*	
	Asian American	0.00%	0.91%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.04%	0.00	Underutilization	*	
	Native American	0.00%	0.52%	0.00	Underutilization	*	
	TOTAL MBE	1.17%	18.86%	6.21	Underutilization	*	
	Nonminority Female	0.58%	8.32%	6.98	Underutilization	*	
	TOTAL M/WBE	1.75%	27.18%	6.45	Underutilization	*	
2017	Black American	2.06%	16.38%	12.54	Underutilization	*	
	Asian American	0.00%	0.91%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.04%	0.00	Underutilization	*	
	Native American	0.00%	0.52%	0.00	Underutilization	*	
	TOTAL MBE	2.06%	18.86%	10.90	Underutilization	*	
	Nonminority Female	1.46%	8.32%	17.50	Underutilization	*	
	TOTAL M/WBE	3.51%	27.18%	12.92	Underutilization	*	
2018	Black American	1.99%	16.38%	12.12	Underutilization	*	
	Asian American	0.00%	0.91%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.04%	0.00	Underutilization	*	
	Native American	0.00%	0.52%	0.00	Underutilization	*	
	TOTAL MBE	1.99%	18.86%	10.53	Underutilization	*	
	Nonminority Female	0.89%	8.32%	10.69	Underutilization	*	
	TOTAL M/WBE	2.88%	27.18%	10.58	Underutilization	*	
2019	Black American	2.41%	16.38%	14.72	Underutilization	*	
	Asian American	0.00%	0.91%	0.00	Underutilization	*	
	Hispanic American	0.00%	1.04%	0.00	Underutilization	*	
	Native American	0.00%	0.52%	0.00	Underutilization	*	
	TOTAL MBE	2.41%	18.86%	12.79	Underutilization	*	
	Nonminority Female	1.55%	8.32%	18.66	Underutilization	*	
	TOTAL M/WBE	3.96%	27.18%	14.59	Underutilization	*	
2020	Black American	0.32%	16.38%	1.97	Underutilization	*	
	Asian American	0.21%	0.91%	23.31	Underutilization	*	
	Hispanic American	0.00%	1.04%	0.00	Underutilization	*	
	Native American	0.00%	0.52%	0.00	Underutilization	*	
	TOTAL MBE	0.54%	18.86%	2.84	Underutilization	*	
	Nonminority Female	1.28%	8.32%	15.33	Underutilization	*	
	TOTAL M/WBE	1.81%	27.18%	6.66	Underutilization	*	
Total	Black American	98.19%	72.82%	134.83	Overutilization		
	Black American	1.60%	16.38%	9.74	Underutilization	*	p <.05
	Asian American	0.04%	0.91%	4.85	Underutilization	*	p <.05
	Hispanic American	0.00%	1.04%	0.00	Underutilization	*	p <.05
	Native American	0.00%	0.52%	0.00	Underutilization	*	Small
	TOTAL MBE	1.64%	18.86%	8.69	Underutilization	*	p <.05
	Nonminority Female	1.16%	8.32%	13.91	Underutilization	*	p <.05
	TOTAL M/WBE	2.80%	27.18%	10.29	Underutilization	*	p <.05
Non-M/WBE	97.20%	72.82%	133.48	Overutilization			

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CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

Table I-2

**City of Cincinnati 2022 Disparity Study
Disparity Analysis of Prime, A&E
Data Based on Certified and Non-Certified Minority Owned Firms
CY 2016-2020**

Year	Business Ownership	Percent of Dollars	Percent of Available	Disparity Index	Disparate Impact of	Less than	Statistical Significance
2016	Black American	2.37%	8.28%	28.63	Underutilization	*	
	Asian American	7.91%	4.14%	190.98	Overutilization		
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	10.28%	14.79%	69.51	Underutilization	*	
	Nonminority Female	7.00%	12.43%	56.35	Underutilization	*	
	TOTAL M/WBE	17.28%	27.22%	63.50	Underutilization	*	
2017	Black American	0.13%	8.28%	1.51	Underutilization	*	
	Asian American	11.52%	4.14%	278.08	Overutilization		
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	11.64%	14.79%	78.71	Underutilization	*	
	Nonminority Female	9.16%	12.43%	73.71	Underutilization	*	
	TOTAL M/WBE	20.80%	27.22%	76.43	Underutilization	*	
2018	Black American	0.00%	8.28%	0.00	Underutilization	*	
	Asian American	12.04%	4.14%	290.75	Overutilization		
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	12.04%	14.79%	81.41	Underutilization		
	Nonminority Female	14.29%	12.43%	115.01	Overutilization		
	TOTAL M/WBE	26.33%	27.22%	96.75	Underutilization		
2019	Black American	0.00%	8.28%	0.00	Underutilization	*	
	Asian American	15.63%	4.14%	377.33	Overutilization		
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	15.63%	14.79%	105.65	Overutilization		
	Nonminority Female	9.44%	12.43%	75.99	Underutilization	*	
	TOTAL M/WBE	25.07%	27.22%	92.11	Underutilization		
2020	Black American	0.16%	8.28%	1.99	Underutilization	*	
	Asian American	11.24%	4.14%	271.30	Overutilization		
	Hispanic American	5.72%	2.37%	241.67	Overutilization		
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	17.12%	14.79%	115.74	Overutilization		
	Nonminority Female	12.95%	12.43%	104.19	Overutilization		
	TOTAL M/WBE	30.07%	27.22%	110.47	Overutilization		
Total	Black American	0.47%	8.28%	5.69	Underutilization	*	p < .05
	Asian American	11.53%	4.14%	278.41	Overutilization		
	Hispanic American	1.37%	2.37%	57.89	Underutilization	*	p < .05
	Native American	0.00%	0.00%	-	n/a		Small Number
	TOTAL MBE	13.37%	14.79%	90.40	Underutilization		
	Nonminority Female	10.62%	12.43%	85.46	Underutilization		
	TOTAL M/WBE	23.99%	27.22%	88.15	Underutilization		
	Non-M/WBE	76.01%	72.78%	104.43	Overutilization		

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CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

Table I-3

**City of Cincinnati 2022 Disparity Study
Disparity Analysis of Prime, Professional Services
Data Based on Certified and Non-Certified Minority Owned Firms
CY 2016-2020**

Fiscal Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	3.54%	13.66%	25.92	Underutilization	*	
	Asian American	0.00%	1.55%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	3.54%	15.46%	22.90	Underutilization	*	
	Nonminority	7.13%	7.99%	89.19	Underutilization		
	TOTAL M/WBE	10.67%	23.45%	45.48	Underutilization	*	
2017	Black American	18.95%	13.66%	138.73	Overutilization		
	Asian American	0.00%	1.55%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	18.95%	15.46%	122.55	Overutilization		
	Nonminority	2.69%	7.99%	33.63	Underutilization	*	
	TOTAL M/WBE	21.64%	23.45%	92.26	Underutilization		
2018	Black American	10.99%	13.66%	80.47	Underutilization		
	Asian American	0.00%	1.55%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	10.99%	15.46%	71.08	Underutilization	*	
	Nonminority	1.18%	7.99%	14.82	Underutilization	*	
	TOTAL M/WBE	12.18%	23.45%	51.91	Underutilization	*	
2019	Black American	7.24%	13.66%	53.03	Underutilization	*	
	Asian American	0.00%	1.55%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	7.24%	15.46%	46.85	Underutilization	*	
	Nonminority	2.41%	7.99%	30.11	Underutilization	*	
	TOTAL M/WBE	9.65%	23.45%	41.15	Underutilization	*	
2020	Black American	2.44%	13.66%	17.84	Underutilization	*	
	Asian American	0.00%	1.55%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	2.44%	15.46%	15.76	Underutilization	*	
	Nonminority	3.15%	7.99%	39.41	Underutilization	*	
	TOTAL M/WBE	5.59%	23.45%	23.81	Underutilization	*	
Total	Black American	9.58%	13.66%	70.17	Underutilization	*	p < .05
	Asian American	0.00%	1.55%	0.00	Underutilization	*	p < .05
	Hispanic American	0.00%	0.26%	0.00	Underutilization	*	p < .05
	Native American	0.00%	0.00%	-	n/a		Small
	TOTAL MBE	9.58%	15.46%	61.98	Underutilization	*	p < .05
	Nonminority	3.10%	7.99%	38.84	Underutilization	*	p < .05
	TOTAL M/WBE	12.69%	23.45%	54.10	Underutilization	*	p < .05
	Non-M/WBE	87.31%	76.55%	114.06	Overutilization		

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CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

Table I-4

**City of Cincinnati 2022 Disparity Study
Disparity Analysis of Prime, Other Services
Data Based on Certified and Non-Certified Minority Owned Firms
CY 2016-2020**

Fiscal Year	Business Ownership	Percent of Dollars	Percent of Available	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	1.81%	12.70%	14.27	Underutilization	*	
	Asian American	0.15%	0.88%	17.05	Underutilization	*	
	Hispanic American	0.00%	0.48%	0.00	Underutilization	*	
	Native American	0.00%	0.08%	0.00	Underutilization	*	
	TOTAL MBE	1.96%	14.15%	13.87	Underutilization	*	
	Nonminority Female	5.19%	5.06%	102.44	Overutilization		
	TOTAL M/WBE	7.15%	19.21%	37.22	Underutilization	*	
2017	Black American	3.81%	12.70%	29.98	Underutilization	*	
	Asian American	0.22%	0.88%	25.25	Underutilization	*	
	Hispanic American	0.00%	0.48%	0.00	Underutilization	*	
	Native American	0.00%	0.08%	0.00	Underutilization	*	
	TOTAL MBE	4.03%	14.15%	28.49	Underutilization	*	
	Nonminority Female	2.38%	5.06%	46.92	Underutilization	*	
	TOTAL M/WBE	6.41%	19.21%	33.35	Underutilization	*	
2018	Black American	3.23%	12.70%	25.45	Underutilization	*	
	Asian American	0.19%	0.88%	21.89	Underutilization	*	
	Hispanic American	0.00%	0.48%	0.00	Underutilization	*	
	Native American	0.00%	0.08%	0.00	Underutilization	*	
	TOTAL MBE	3.43%	14.15%	24.21	Underutilization	*	
	Nonminority Female	2.27%	5.06%	44.90	Underutilization	*	
	TOTAL M/WBE	5.70%	19.21%	29.66	Underutilization	*	
2019	Black American	3.45%	12.70%	27.15	Underutilization	*	
	Asian American	0.07%	0.88%	7.61	Underutilization	*	
	Hispanic American	0.00%	0.48%	0.00	Underutilization	*	
	Native American	0.00%	0.08%	0.00	Underutilization	*	
	TOTAL MBE	3.52%	14.15%	24.85	Underutilization	*	
	Nonminority Female	1.89%	5.06%	37.24	Underutilization	*	
	TOTAL M/WBE	5.40%	19.21%	28.12	Underutilization	*	
2020	Black American	3.18%	12.70%	25.00	Underutilization	*	
	Asian American	1.64%	0.88%	185.06	Overutilization		
	Hispanic American	0.00%	0.48%	0.00	Underutilization	*	
	Native American	0.00%	0.08%	0.00	Underutilization	*	
	TOTAL MBE	4.81%	14.15%	34.01	Underutilization	*	
	Nonminority Female	2.26%	5.06%	44.71	Underutilization	*	
	TOTAL M/WBE	7.08%	19.21%	36.83	Underutilization	*	
Total	Black American	3.07%	12.70%	24.17	Underutilization	*	p < .05
	Asian American	0.46%	0.88%	51.82	Underutilization	*	p < .05
	Hispanic American	0.00%	0.48%	0.00	Underutilization	*	Small Number
	Native American	0.00%	0.08%	0.00	Underutilization	*	Small Number
	TOTAL MBE	3.53%	14.15%	24.94	Underutilization	*	p < .05
	Nonminority Female	2.84%	5.06%	56.05	Underutilization	*	p < .05
	TOTAL M/WBE	6.37%	19.21%	33.14	Underutilization	*	p < .05
	Non-M/WBE	93.63%	80.79%	115.90	Overutilization		

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CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

Table I-5

City of Cincinnati 2022 Disparity Study
 Disparity Analysis of Prime, Goods
 Data Based on Certified and Non-Certified Minority Owned Firms
 CY 2016-2020

Fiscal Year	Business Ownership	Percent	Percent of	Disparity	Disparate	Less	Statistical
2016	Black American	3.37%	5.58%	60.38	Underutilization	*	
	Asian American	0.00%	0.27%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.13%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	3.37%	5.98%	56.35	Underutilization	*	
	Nonminority Female	0.77%	5.84%	13.17	Underutilization	*	
	TOTAL M/WBE	4.14%	11.82%	35.00	Underutilization	*	
2017	Black American	4.48%	5.58%	80.40	Underutilization		
	Asian American	0.00%	0.27%	0.00	Underutilization	*	
	Hispanic American	0.00%	0.13%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	4.48%	5.98%	75.04	Underutilization	*	
	Nonminority Female	0.81%	5.84%	13.90	Underutilization	*	
	TOTAL M/WBE	5.30%	11.82%	44.81	Underutilization	*	
2018	Black American	0.00%	5.58%	0.00	Underutilization	*	
	Asian American	#REF!	0.27%	-	n/a		
	Hispanic American	0.00%	0.13%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	5.53%	5.98%	92.54	Underutilization		
	Nonminority Female	0.87%	5.84%	14.97	Underutilization	*	
	TOTAL M/WBE	6.40%	11.82%	54.19	Underutilization	*	
2019	Black American	5.90%	5.58%	105.87	Overutilization		
	Asian American	0.00%	0.27%	0.00	Underutilization	*	
	Hispanic American	0.01%	0.13%	3.86	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	5.91%	5.98%	98.89	Underutilization		
	Nonminority Female	1.30%	5.84%	22.29	Underutilization	*	
	TOTAL M/WBE	7.21%	11.82%	61.02	Underutilization	*	
2020	Black American	5.36%	5.58%	96.08	Underutilization		
	Asian American	0.00%	0.27%	0.76	Underutilization	*	
	Hispanic American	0.00%	0.13%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	5.36%	5.98%	89.70	Underutilization		
	Nonminority Female	0.67%	5.84%	11.52	Underutilization	*	
	TOTAL M/WBE	6.03%	11.82%	51.05	Underutilization	*	
Total	Black American	4.89%	5.58%	87.67	Underutilization		
	Asian American	0.00%	0.27%	0.14	Underutilization	*	Small Number
	Hispanic American	0.00%	0.13%	0.77	Underutilization	*	Small Number
	Native American	0.00%	0.00%	-	n/a		Small Number
	TOTAL MBE	4.89%	5.98%	81.85	Underutilization		
	Nonminority Female	0.89%	5.84%	15.18	Underutilization	*	p < .05
	TOTAL M/WBE	5.78%	11.82%	48.89	Underutilization	*	p < .05
	Non-M/WBE	94.22%	88.18%	106.85	Overutilization		

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APPENDIX J

**City of Cincinnati 2022 Disparity Study
Analysis of Total Utilization (Prime + Subcontract)
Distribution of Dollars by Business Ownership and Fiscal Year
Data Based on Certified and Non-Certified Minority and Women
Owned Firms
CY 2016-2020**

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

**Table J-1
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year
Total Utilization, Construction
Data Based on Certified and Non-Certified Minority Owned Firms
CY 2016-2020**

Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Black American	\$ 669,406	\$ 10,357,016	\$ 13,554,507	\$ 11,488,804	\$ 4,549,686	\$ 40,619,419
Asian American	\$ 1,670,012	\$ 867,719	\$ 1,586,329	\$ 3,432,588	\$ 1,343,474	\$ 8,900,122
Hispanic American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL MINORITY	\$ 2,339,418	\$ 11,224,735	\$ 15,140,836	\$ 14,921,392	\$ 5,893,160	\$ 49,519,541
Nonminority Female	\$ 1,378,486	\$ 3,009,863	\$ 6,169,067	\$ 5,442,482	\$ 3,487,241	\$ 19,487,139
TOTAL M/WBE	\$ 3,717,903	\$ 14,234,598	\$ 21,309,903	\$ 20,363,874	\$ 9,380,402	\$ 69,006,680
NON-M/WBE	\$ 58,663,575	\$ 60,553,260	\$ 63,699,880	\$ 48,408,306	\$ 67,104,911	\$ 298,429,932
TOTAL FIRMS	\$ 62,381,478	\$ 74,787,858	\$ 85,009,783	\$ 68,772,180	\$ 76,485,313	\$ 367,436,612
Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
Black American	1.07%	13.85%	15.94%	16.71%	5.95%	11.05%
Asian American	2.68%	1.16%	1.87%	4.99%	1.76%	2.42%
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	3.75%	15.01%	17.81%	21.70%	7.70%	13.48%
Nonminority Female	2.21%	4.02%	7.26%	7.91%	4.56%	5.30%
TOTAL M/WBE	5.96%	19.03%	25.07%	29.61%	12.26%	18.78%
NON-M/WBE	94.04%	80.97%	74.93%	70.39%	87.74%	81.22%
TOTAL FIRMS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

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Table J-2
City of Cincinnati Disparity Study
Distribution of Dollars by Business Ownership and Fiscal Year
Total Utilization, A&E
Data Based on Certified and Non-Certified Minority Owned Firms
CY 2016-2020

Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Black American	\$ 62,100	\$ 11,461	\$ -	\$ -	\$ 6,150	\$ 79,710
Asian American	\$ 206,449	\$ 510,229	\$ 325,399	\$ 352,970	\$ 419,588	\$ 1,814,634
Hispanic American	\$ -	\$ -	\$ -	\$ -	\$ 213,581	\$ 213,581
Native American	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL MINORITY	\$ 268,549	\$ 521,690	\$ 325,399	\$ 352,970	\$ 639,319	\$ 2,107,925
Nonminority Female	\$ 182,735	\$ 396,935	\$ 379,036	\$ 213,266	\$ 483,438	\$ 1,655,411
TOTAL M/WBE	\$ 451,283	\$ 918,625	\$ 704,435	\$ 566,236	\$ 1,122,757	\$ 3,763,336
NON-M/WBE	\$ 2,158,568	\$ 3,414,856	\$ 1,947,767	\$ 1,692,202	\$ 2,611,198	\$11,824,591
TOTAL FIRMS	\$ 2,609,851	\$ 4,333,481	\$ 2,652,202	\$ 2,258,437	\$ 3,733,956	\$15,587,927
Business Ownership Classification	2016	2017	2018	2019	2020	TOTAL
	(%)	(%)	(%)	(%)	(%)	(%)
Black American	2.38%	0.26%	0.00%	0.00%	0.16%	0.51%
Asian American	7.91%	11.77%	12.27%	15.63%	11.24%	11.64%
Hispanic American	0.00%	0.00%	0.00%	0.00%	5.72%	1.37%
Native American	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
TOTAL MINORITY	10.29%	12.04%	12.27%	15.63%	17.12%	13.52%
Nonminority Female	7.00%	9.16%	14.29%	9.44%	12.95%	10.62%
TOTAL M/WBE	17.29%	21.20%	26.56%	25.07%	30.07%	24.14%
NON-M/WBE	82.71%	78.80%	73.44%	74.93%	69.93%	75.86%
TOTAL FIRMS	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

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APPENDIX K

**City of Cincinnati 2022 Disparity Study
Disparity Analysis of Total Utilization (Prime + Subcontract)
Distribution of Dollars by Business Ownership and Fiscal Year
Data Based on Certified and Non-Certified Minority and Women
Owned Firms
CY 2016-2020**

CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

Table K-1
Disparity Analysis of Total Utilization, Construction
Distribution of Dollars by Business Ownership and Fiscal Year
Data Based on Certified and Non-Certified Minority Owned Firms
CY 2016-2020

Fiscal Year	Business Ownership	Percent of	Percent of Available	Disparity Index	Disparate Impact of Utilization	Less than	Statistical Significance
2016	Black American	1.07%	16.38%	6.55	Underutilization	*	
	Asian American	2.68%	0.91%	294.10	Overutilization		
	Hispanic American	0.00%	1.04%	0.00	Underutilization	*	
	Native American	0.00%	0.52%	0.00	Underutilization	*	
	TOTAL MBE	3.75%	18.86%	19.89	Underutilization	*	
	Nonminority	2.21%	8.32%	26.55	Underutilization	*	
	TOTAL M/WBE	5.96%	27.18%	21.93	Underutilization	*	
2017	Non-M/WBE	94.04%	72.82%	129.14	Overutilization		
	Black American	13.85%	16.38%	84.52	Underutilization		
	Asian American	1.16%	0.91%	127.46	Overutilization		
	Hispanic American	0.00%	1.04%	0.00	Underutilization	*	
	Native American	0.00%	0.52%	0.00	Underutilization	*	
	TOTAL MBE	15.01%	18.86%	79.60	Underutilization	*	
	Nonminority	4.02%	8.32%	48.36	Underutilization	*	
2018	TOTAL M/WBE	19.03%	27.18%	70.03	Underutilization	*	
	Non-M/WBE	80.97%	72.82%	111.18	Overutilization		
	Black American	15.94%	16.38%	97.31	Underutilization		
	Asian American	1.87%	0.91%	205.00	Overutilization		
	Hispanic American	0.00%	1.04%	0.00	Underutilization	*	
	Native American	0.00%	0.52%	0.00	Underutilization	*	
	TOTAL MBE	17.81%	18.86%	94.46	Underutilization		
2019	Nonminority	7.26%	8.32%	87.20	Underutilization		
	TOTAL M/WBE	25.07%	27.18%	92.23	Underutilization		
	Non-M/WBE	74.93%	72.82%	102.90	Overutilization		
	Black American	16.71%	16.38%	101.96	Overutilization		
	Asian American	4.99%	0.91%	548.32	Overutilization		
	Hispanic American	0.00%	1.04%	0.00	Underutilization	*	
	Native American	0.00%	0.52%	0.00	Underutilization	*	
2020	TOTAL MBE	21.70%	18.86%	115.07	Overutilization		
	Nonminority	7.91%	8.32%	95.09	Underutilization		
	TOTAL M/WBE	29.61%	27.18%	108.95	Overutilization		
	Non-M/WBE	70.39%	72.82%	96.66	Underutilization		
	Black American	5.95%	16.38%	36.30	Underutilization	*	
	Asian American	1.76%	0.91%	192.97	Overutilization		
	Hispanic American	0.00%	1.04%	0.00	Underutilization	*	
Total	Native American	0.00%	0.52%	0.00	Underutilization	*	
	TOTAL MBE	7.70%	18.86%	40.86	Underutilization	*	
	Nonminority	4.56%	8.32%	54.78	Underutilization	*	
	TOTAL M/WBE	12.26%	27.18%	45.13	Underutilization	*	
	Non-M/WBE	87.74%	72.82%	120.48	Overutilization		
	Black American	11.05%	16.38%	67.47	Underutilization	*	p <.05
	Asian American	2.42%	0.91%	266.10	Overutilization		
Hispanic American	0.00%	1.04%	0.00	Underutilization	*	p <.05	
Native American	0.00%	0.52%	0.00	Underutilization	*	Small Number	
TOTAL MBE	13.48%	18.86%	71.47	Underutilization	*	p <.05	
Nonminority	5.30%	8.32%	63.73	Underutilization	*	p <.05	
TOTAL M/WBE	18.78%	27.18%	69.10	Underutilization	*	p <.05	
Non-M/WBE	81.22%	72.82%	111.53	Overutilization			

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CITY OF CINCINNATI, OHIO 2022 DISPARITY STUDY

**Table K-2
Disparity Analysis of Total Utilization, A&E
Distribution of Dollars by Business Ownership and Fiscal Year
Data Based on Certified and Non-Certified Minority Owned Firms
CY 2016-2020**

Fiscal Year	Business Ownership	Percent of Dollars	Percent of Available Firms	Disparity Index	Disparate Impact of Utilization	Less than 80%	Statistical Significance
2016	Black American	2.38%	8.28%	28.72	Underutilization	*	
	Asian American	7.91%	4.14%	190.98	Overutilization		
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	10.29%	14.79%	69.56	Underutilization	*	
	Nonminority	7.00%	12.43%	56.35	Underutilization	*	
	TOTAL M/WBE	17.29%	27.22%	63.53	Underutilization	*	
2017	Black American	0.26%	8.28%	3.19	Underutilization	*	
	Asian American	11.77%	4.14%	284.26	Overutilization		
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	12.04%	14.79%	81.38	Underutilization		
	Nonminority	9.16%	12.43%	73.71	Underutilization	*	
	TOTAL M/WBE	21.20%	27.22%	77.88	Underutilization	*	
2018	Black American	0.00%	8.28%	0.00	Underutilization	*	
	Asian American	12.27%	4.14%	296.21	Overutilization		
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	12.27%	14.79%	82.94	Underutilization		
	Nonminority	14.29%	12.43%	115.01	Overutilization		
	TOTAL M/WBE	26.56%	27.22%	97.58	Underutilization		
2019	Black American	0.00%	8.28%	0.00	Underutilization	*	
	Asian American	15.63%	4.14%	377.33	Overutilization		
	Hispanic American	0.00%	2.37%	0.00	Underutilization	*	
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	15.63%	14.79%	105.65	Overutilization		
	Nonminority	9.44%	12.43%	75.99	Underutilization	*	
	TOTAL M/WBE	25.07%	27.22%	92.11	Underutilization		
2020	Black American	0.16%	8.28%	1.99	Underutilization	*	
	Asian American	11.24%	4.14%	271.30	Overutilization		
	Hispanic American	5.72%	2.37%	241.67	Overutilization		
	Native American	0.00%	0.00%	-	n/a		
	TOTAL MBE	17.12%	14.79%	115.74	Overutilization		
	Nonminority	12.95%	12.43%	104.19	Overutilization		
	TOTAL M/WBE	30.07%	27.22%	110.47	Overutilization		
Total	Black American	0.51%	8.28%	6.17	Underutilization	*	p < .05
	Asian American	11.64%	4.14%	281.05	Overutilization		
	Hispanic American	1.37%	2.37%	57.89	Underutilization	*	p < .05
	Native American	0.00%	0.00%	-	n/a		Small
	TOTAL MBE	13.52%	14.79%	91.41	Underutilization		
	Nonminority	10.62%	12.43%	85.46	Underutilization		
	TOTAL M/WBE	24.14%	27.22%	88.70	Underutilization		
	Non-M/WBE	75.86%	72.78%	104.23	Overutilization		

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APPENDIX L

**City of Cincinnati 2022 Disparity Study
Expanded Legal Analysis**

APPENDIX L: EXPANDED LEGAL ANALYSIS

The following discussion supplements the historical overview in Chapter III of the development of disparity studies and underscores the importance of such studies for establishing and maintaining a legally defensible MWBE program or initiative. There are several important legal standards and considerations that arise when a constitutional challenge to an MWBE program is raised, and those are addressed within this Appendix L. Also included in this expanded legal analysis is a review of the key aspects of the methodology utilized by GSPC to conduct the City of Cincinnati's Disparity Study, including the process by which GSPC gathered and analyzed both the statistical and the anecdotal evidence, which together provide the "factual predicate" for recommended remedial programs and policies.

A. Legal Standing and Burdens of Proof for Challenges to MWBE Programs and Legislation

1. The Standing Requirement

To maintain an action for relief in any federal court of the United States or any state court called upon to decide a matter upon federal law, a party must have legal standing.¹ "Though some of its elements express merely prudential considerations that are part of judicial self-government, the core component of standing is an essential and unchanging part of the case-or-controversy requirement of Article III"² of the U.S. Constitution.

[S]tanding contains three elements. First, the plaintiff must have suffered an injury in fact -- an invasion of a legally protected interest which is . . . concrete and particularized . . . and . . . actual or imminent, not conjectural or hypothetical . . . [; s]econd, there must be a causal connection between the injury and the conduct complained of . . . [; and t]hird, it must be likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision [of the Court wherewith the matter is brought].³

The Sixth Circuit analyzed the "injury in fact" element for standing in *Associated General Contractors of America v. City of Columbus*.⁴ A contractors' association brought an action challenging the constitutionality of the City of Columbus' minority business set-aside ordinance. After a decision by the district court striking down the ordinance, the City sought relief from the judgment, citing a revised, recently-enacted set-aside ordinance. On appeal, the Sixth Circuit held that the contractors' association could not demonstrate the "injury in fact" required to establish standing to challenge the constitutionality of the second minority business set-aside ordinance, as the ordinance had not yet been put into effect:

Once the [first] set-aside program was gone, the constitutional violation was gone, and no condition requiring repair remained. The remedy was complete. The agreed order, however, . . . enjoined the City from enacting any new set-aside legislation without first obtaining district court approval--thus, the decree aimed at eliminating a condition that did not yet exist, a condition that, at most, might violate the Constitution, if that condition should in fact materialize.⁵

¹ U.S. Constitution, Article III, Section 2, cl. 1; *Lujan v. Defenders of Wildlife*, 504 U.S. 555 (1992)

² *Lujan*, 504 U.S. at 560.

³ *Id.* at 560-61 (internal punctuation and citations omitted).

⁴ 172 F.3d 411 (6th Cir. 1999).

⁵ *Id.* at 418.

The goal, of course, is to design and implement an MWBE program for which no legitimate claims of “reverse discrimination” can be made by majority contractors, substantially lessening the likelihood of constitutional challenge. However, if an action challenging the constitutionality of the program is brought, standing issues will need to be addressed at the outset of any litigation.

2. Burdens of Production/Proof

As noted in Chapter III of the Study report, 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, which was its initial burden.⁶ Since the Fourteenth Amendment only allows affirmative action policies that narrowly seek to remedy particularized discrimination, the Court reasoned that state and local governments “must identify that discrimination . . . with some specificity before they may use race-conscious relief.”⁷ 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.”⁸

The initial burden of production lies with the state or local governmental entity to demonstrate that its race- and gender-conscious contract program is aimed at remedying identified past or present discrimination.⁹ Merely articulating 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.¹⁰ Thus, the local government must not only identify the discrimination it seeks to redress, but also produce particularized findings of discrimination.¹¹ A governmental entity may, for example, establish an inference of discrimination with empirical evidence of a significant statistical disparity between the number of qualified, willing, and able MWBEs in the relevant market area and those awarded a contract by the governmental entity or utilized as subcontractors under the public contract.¹²

The courts maintain that the quantum of evidence required is to be determined on a case-by-case basis, and in the context and breadth of the MWBE program the government purports to advance.¹³ Once the governmental entity establishes a compelling interest in remedying past discrimination and demonstrates its plan is narrowly tailored to achieve that goal, the party challenging the affirmative action plan bears the ultimate burden of proving the program is unconstitutional.¹⁴

⁶ *Croson*, 488 U.S. at 498-506.

⁷ *Id.* at 504.

⁸ *Id.* at 500 (quoting *Wygant v. Jackson Bd. of Educ.*, 476 U.S. 267, 277, 106 S.Ct. 1842, 1849 (1986)).

⁹ See *West Tenn. Chapter of Assoc. Builders v. City of Memphis*, 302 F.Supp.2d 860, 863 (W.D. Tenn. 2004) (citing *Croson*; *Adarand III*).

¹⁰ *Croson*, 488 U.S. at 500.

¹¹ *Id.* at 500-501.

¹² *Id.* at 509.

¹³ See *Concrete Works of Colorado, Inc. v. City & Cty. of Denver*, 36 F.3d 1513 (10th Cir. 1994).

¹⁴ See *Sherbrooke Turf, Inc. v. Minn.DOT*, 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. Minn. DOT*, 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.”), citing *Adarand VII*, 228 F.3d at 1166).

B. The Equal Protection Clause and Relevant Levels of Judicial Scrutiny

The Fourteenth Amendment provides, “No state shall . . . deny to any person within its jurisdiction the equal protection of the laws.”¹⁵ It is this constitutional equal protection consideration that is invoked when a race- or gender-conscious purchasing program or policy is implemented by a governmental entity.

1. Strict Scrutiny for Race-Based Classifications

The Supreme Court has made clear that “all racial classifications imposed by government must be analyzed by a reviewing court under strict scrutiny.”¹⁶ 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. 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. While the inequities and indignities visited by past discrimination are undeniable, the use of race as a reparational device risks perpetuating the very race-consciousness such a remedy purports to overcome. . . . It thus remains our constitutional premise that race is an impermissible arbiter of human fortunes.¹⁷

Again, “[u]nder strict scrutiny, a racial classification must (1) serve a compelling governmental interest, and (2) be narrowly tailored to achieve that interest.”¹⁸

2. Strict Scrutiny for Gender-Based Classifications in the Sixth Circuit

Though unsettled in other federal circuits, the Sixth Circuit has definitively ruled that programs with gender-based classifications are evaluated for constitutionality under the same strict scrutiny standard applied to race-based classifications, rather than the more relaxed level of intermediate scrutiny applied by some circuits.¹⁹ To the extent the City retains or revises a gender-conscious policy or program element it also must meet the same legal standard of being narrowly tailored to serve a compelling governmental interest as that which applies to race-conscious policies or programs.

¹⁵ U.S. Const., amend. XIV, § 1.

¹⁶ *Grutter v. Bollinger*, 539 U.S. 306, 326, 123 S. Ct. 2325, 156 L.Ed.2d 304 (2003). *See also Adarand III*, 515 U.S. at 227.

¹⁷ *Podberesky v. Kirwin*, 38 F.3d 147, 152 (4th Cir. 1994), quoting *Maryland Troopers Assn. v. Evans*, 993 F.2d 1072, 1076 (4th Cir. 1993) (internal citations omitted).

¹⁸ *See Tuttle by Tuttle v. Arlington County Sch. Bd.*, 195 F.3d 698, 704 (4th Cir. 1999) (citing *Adarand III*). *See also Michigan Road Builders Assn. v. Milliken*, 834 F.2d 583, 589-90 (6th Cir. 1987); *Associated Gen. Contrs. of Ohio, Inc. v. Drabik*, 214 F.3d 730, 734 (6th Cir. 2000); *Cleveland Firefighters for Fair Housing v. City of Cleveland*, 917 F.Supp.2d 668, 679-80 (N.D. Ohio 2013).

¹⁹ *See Brunet v. City of Columbus*, 1 F.3d 390, 403-04 (6th Cir. 1993); *Conlin v. Blanchard*, 890 F.2d 811, 816 (6th Cir. 1989).

C. “Compelling Public Interest” Considerations

As noted above, the City’s MWBE contracting program must be rooted in a compelling governmental interest.

Although imposing a substantial burden, strict scrutiny is not automatically “fatal in fact.” *Adarand [III]*, 515 U.S. at 237. 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, and must have a “strong basis in evidence for its conclusion that remedial action [is] necessary,” *id.* at 500 (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)).²⁰

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” the goal so closely that there is little likelihood the motive for the racial classification is illegitimate racial prejudice or stereotype.²¹

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.²²

1. The Extent of Participation in Discrimination by the Public Entity

The courts have uniformly held that general societal discrimination is insufficient to justify the use of race-based measures to satisfy a compelling governmental interest.²³ Rather, there must be some showing of

²⁰ *H.B. Rowe Co., Inc. v. Tippett*, 615 F.3d 233, 241 (4th Cir. 2010).

²¹ *Engineering Contrs. Assn. v. Metro. Dade Cnty.*, 122 F.3d 895, 906 (11th Cir.1997). *See also, Adarand III*, 515 U.S. at 235.

²² *See W.H. Scott Const. Co. v. City of Jackson*, 199 F.3d 206, 217 (5th Cir. 1999) (“[C]ombating racial discrimination is a compelling government interest.”); *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.”).

²³ *Adarand III*, 515 U.S. at 220-21; *Croson*, 488 U.S. at 496-97.

prior discrimination by the governmental actor involved, either as an “active” or “passive” participant.²⁴ The upshot of this dual-faceted evaluation of the enacting governmental entity is that, even if the entity did not directly discriminate, it can take corrective action.

Subsequent lower court rulings have provided more guidance on passive participation by local governments in discrimination as a basis for justifying remedial action. In *Concrete Works*, 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.²⁵

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 MWBE 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.

2. Types of Evidence

The types of evidence routinely presented to show the existence of a compelling interest include statistical and anecdotal evidence. Where gross statistical disparities exist, they alone may constitute *prima facie* proof of a pattern or practice of discrimination.²⁶ Anecdotal evidence, such as testimony from minority contractors, is most useful as a supplement to strong statistical evidence, as it cannot carry the burden for the entity by itself.

The majority decision in *Croson* implicitly endorsed the inclusion of personal accounts of discrimination, but *Croson* and subsequent decisions also make clear that selective anecdotal evidence about MWBE experiences alone would not provide an ample basis in evidence to demonstrate public or private discrimination in a municipality's award of contracts.²⁷ Stated otherwise, personal accounts of actual

²⁴ *Croson*, 488 U.S. at 492. See also *Ashton v. City of Memphis*, 49 F. Supp.2d 1051, 1057 (W. D. Tenn. 1999) (citing *Croson*). As the Sixth Circuit clarified, “[g]overnmental entities are not restricted to eradicating the effects only of their own discriminatory acts.” *Tennessee Asphalt Co. v. Farris*, 942 F.2d 969, 974 (6th Cir. 1991). Thus, even if the governmental unit did not directly discriminate, it can take corrective action. *Croson*, 488 U.S. at 492 (“[I]f 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.”).

²⁵ *Concrete Works*, 36 F.3d at 1529.

²⁶ *Croson*, 488 U.S. at 501 (“There is no doubt that ‘[w]here gross statistical disparities can be shown, they alone in a proper case may constitute prima facie proof of a pattern or practice of discrimination’ under Title VII. *Hazelwood School Dist. v. United States*, 433 U. S. 299, 307-308 (1977)”).

²⁷ *Id.* 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 *Eng.*

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. To survive a constitutional challenge, 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. 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. We further require that such evidence be 'corroborated by significant anecdotal evidence of racial discrimination.'²⁸

Accordingly, a combination of statistical disparities in the utilization of MWBEs and particularized anecdotal accounts of discrimination by the MWBEs (or others) will satisfy the factual predicate.²⁹ 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.³⁰

a) Statistical Data Generally

The *Croson* 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."³¹ A predicate to governmental action is a demonstration that gross statistical disparities exist between the proportion of MBEs awarded government contracts and the proportion of MBEs in the local industry "willing and able to do the work," in order to justify its use of race-conscious contract measures.³²

To adequately assess statistical evidence, there must be information identifying the basic qualifications of minority contractors "willing and able to do the job" and the Court must determine, based upon these

Contractors Assn., 122 F. 3d at 925 ("We have found that kind of evidence [anecdotal] to be helpful in the past, but only when it was combined with and reinforced by sufficiently probative statistical evidence.").

²⁸ *H.B. Rowe*, 615 F.3d at 241 (citations omitted).

²⁹ See *Middleton v. City of Flint*, 92 F.3d 396, 405 (6th Cir. 1996) ("Anecdotal evidence is most useful as a supplement to strong statistical evidence[.]"), quoting *O'Donnell Constr. Co. v. District of Columbia*, 963 F.2d 420, 427 (D.C. Cir. 1992).

³⁰ *Associated Gen. Contrs. of Am. v. California DOT*, 713 F.3d 1187, 1197 (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*, 615 F.3d at 249; *Concrete Works*, 321 F.3d at 989. See also *Kossmann Contracting Co. v. City of Houston*, 2016 WL 11473826, at *21 (S.D. Texas) (Magistrate Judge's Memorandum & Recommendation), *aff'd*, 2016 WL 1104363 (S.D. Texas 2016) (adopting Magistrate Judge's rulings in full) ("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).

³¹ 488 U.S. at 509.

³² *Cone Corp. v. Hillsborough County*, 908 F.2d 908, 915 (11th Cir. 1990).

qualifications, the relevant statistical pool with which to make the appropriate statistical comparisons.³³ Subsequent lower court decisions have provided considerable guidelines for statistical analyses sufficient for satisfying the *Croson* factual predicate, as there are multiple methods that the courts have accepted for conducting statistical analyses. The most prevalent of these are outlined hereafter.

b) Availability

The methods governmental entities have utilized to calculate MWBE Availability have been met with varying degrees of approval or disapproval. In *Contractors Association of East Pennsylvania v. City of Philadelphia*,³⁴ for example, the Third Circuit stated that available and qualified minority-owned businesses comprise the “relevant statistical pool” for purposes of determining Availability.³⁵ The court permitted Availability to be determined based on the metropolitan statistical area (MSA) and the local list of the Office of Minority Opportunity for non-MBE/WBEs, which itself was based on census data.

In contrast, the U.S. District Court for the Southern District of Ohio found fault with the methodology utilized by the City of Columbus to determine MWBE Availability.³⁶ In that case, the city’s consultants collected data on the number of MWBE firms in the Columbus MSA to calculate the percentage of available MWBE firms. Three sources were considered to determine the number of MWBEs “ready, willing and able” to perform construction work for the city (the bidder registration file, census data, and telephone survey data).³⁷ However, the Court found that none of these measures of availability purported to measure the number of MWBEs who were qualified and willing to bid as a prime contractor on the city’s construction projects. To be a successful prime bidder for construction in Columbus, a firm must meet the city’s responsible bidder requirements and be able to obtain a bid bond and a performance bond. None of the three data sources took into consideration a firm’s ability to meet those requirements.³⁸ The Court wrote, “There is no basis in the evidence for an inference that qualified MWBE firms exist in the same proportions as they do in relation to all construction firms in the market,”³⁹ particularly in light of the fact that it is easier for larger firms to meet those requirements and the MWBE firms tended to be smaller.

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.”⁴⁰ The court addressed and rejected the assertion by plaintiff’s expert that bidder data, rather than vendor data, was more appropriate for determining availability:

³³ *Engineering Contrs*, 122 F. 3d. at 920-21. As noted in *Drabik*, 214 F.3d 730, the statistical evidence should be industry or work category-specific in order to be meaningful and relevant on the issue of possible Underutilization. *Id.* at 736 (“The problem with Ohio’s statistical comparison is that the percentage of minority-owned businesses in Ohio (7% as of 1978) did not take into account how many of those businesses were construction companies of any sort, let alone how many were qualified, willing, and able to perform state construction contracts.”).

³⁴ 6 F.3d 990 (3rd Cir. 1993).

³⁵ *Id.* at 1003.

³⁶ *Associated Gen. Contrs. of Am. v. City of Columbus*, 936 F. Supp. 1363, 1389-90, *vacated on other grounds*, 172 F. 3d 411 (6th Cir. 1999).

³⁷ *Id.* at 1389-90.

³⁸ *Id.* at 1389.

³⁹ *Id.*

⁴⁰ 615 F.3d at 244.

Rowe's expert, Dr. George LaNoue, testified that "bidder data"—reflecting the number of subcontractors that actually bid on Department subcontracts—estimates availability better than "vendor data." However, Dr. LaNoue acknowledged that the State does not compile bidder data. He further conceded that bidder data actually reflects "skew[ed]" availability in the context of a goals program that urges prime contractors to solicit bids from minority and women subcontractors. Furthermore, Dr. LaNoue did not contradict Dr. Eagan's previous testimony that the *only* source of bidder data available estimated a *higher* percentage of minority-owned businesses in the relevant labor pool than did MGT's vendor-based estimate. In short, neither Rowe nor its expert has demonstrated that the vendor data used in the 2004 study was unreliable, or that bidder data would have yielded less support for the conclusions reached. . . . [R]owe's challenge to the availability estimate failed because it could not demonstrate that the 2004 study's availability estimate was inadequate.⁴¹

The issue of availability also was examined by the Eleventh Circuit in *Engineering Contractors Association v. Metropolitan Dade County*.⁴² There, the court opined that when reliance is made upon statistical disparity, and 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.⁴³ Moreover, these minority firms must be qualified, willing and able to provide the requested services.⁴⁴ If the statistical analysis includes the proper pool of eligible minorities, any statistically significant disparity may constitute *prima facie* proof of a pattern or practice of discrimination.⁴⁵

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

NCI's argument is that IDOT essentially abused its discretion under this regulation by failing to separate prime contractor availability from subcontractor availability. However, NCI has not identified any aspect of the regulations that requires such separation. Indeed, as the district court observed, the regulations require the local goal to be focused on overall DBE participation in the recipient's DOT-assisted contracts. *See* 49 C.F.R. § 26.45(a)(1). It would make little sense to separate prime contractor and subcontractor availability as suggested by NCI when DBEs will also compete for prime contracts and any success will be reflected in the recipient's calculation of success in meeting the overall goal.⁴⁶

⁴¹ *Id.* at 246.

⁴² 122 F.3d 895.

⁴³ *Id.* at 920-21, citing *Croson*, 488 U.S. at 502.

⁴⁴ *Id.* at 907.

⁴⁵ As discussed above, the Sixth Circuit in *Drabik* ruled that the State of Ohio failed to satisfy the strict scrutiny standard to justify the state's minority business enterprise act because it relied on statistical evidence that did not account for which firms were qualified, willing, and able to perform on construction contracts. *Drabik*, 214 F.3d at 736.

⁴⁶ *Northern Contracting, Inc. v. Illinois DOT*, 473 F.3d 715, 723 (7th Cir. 2007). *See also Associated Gen. Contrs. of Am. v. California DOT*, 713 F.3d at 1199 (citing *Northern Contracting*); *Kossmann*, at 21. ("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

Also, several courts have accepted the use of a “custom census” methodology for calculating Availability, whereby different public and private sources for business formation/operation data (often including MBE or WBE ownership information) are used to measure Availability, rather than relying solely on lists maintained by the government entity, as discussed above.

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.”⁴⁷ In *Kossman*, the consulting analyst “relied on data acquired from Dun & Bradstreet’s Hoovers subsidiary on the total number of businesses in the defined market area. . . . Because the Dun & Bradstreet data did not adequately identify all MWBEs, NERA collected information on MWBEs in Texas and surrounding states through lists from public and private entities, as well as prior NERA studies, and culled records for MWBEs within the [City’s] defined market area.”⁴⁸

The Sixth Circuit’s opinion in *Drabik* also established the need to account for participation by non-certified MWBEs when measuring Availability and Utilization (discussed below). This represents a best practice in this Circuit, and generally can be measured using a modified list approach or a focused custom census approach, depending on the data collected by the public entity (*e.g.*, award data which contains MWBE status even if not certified). If this data is not available from the entity, survey data may be collected to measure participation/utilization by non-certified MWBEs.

c) Utilization

Utilization is a statistical corollary of Availability in the process of determining possible disparities in public contracting. Measuring, for example, awards or payments made to MWBE firms in a particular Industry Category (*e.g.*, construction, goods) as a percentage of the total number of awards or total spend in that Industry Category will produce a rate of Utilization. Once the rate of Utilization is calculated, it is compared to the relevant Availability calculations to determine if a disparity between those figures exists, and if so, to what extent.

For example, in *Engineering Contractors*, the City’s consultants calculated the percentage of the City’s total contracting dollars in construction that were paid to MWBE construction firms.⁴⁹ Similarly, in *Associated General Contractors v. California DOT*, the State’s disparity study consultants calculated the percentage of contracting dollars paid to DBE firms as compared to total spend to determine the rate of Utilization.⁵⁰

In *Cone Corp. v. Hillsborough County*,⁵¹ the following Utilization statistics were developed and presented to justify an MBE program:

both.”); *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).

⁴⁷ 473 F.3d at 718.

⁴⁸ *Kossman* at 2. See also *Midwest Fence*, 840 F.3d at 950 (discussing and approving custom census method).

⁴⁹ 122 F.3d at 913-14.

⁵⁰ 713 F.3d at 1192-1193. In *Kossman v. City of Houston*, NERA used both “award amounts” and “paid amounts” to determine utilization. *Id.* at 2, n. 10. The court, in approving the statistical proffer, looked only at the award amounts to “simplify matters.” *Id.*

⁵¹ 908 F.2d at 915-16.

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 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.⁵²

The Sixth Circuit signaled in *Drabik*, however, that statistical proof of Underutilization would be insufficient in and of itself to supply the justification for the use of a non-race-neutral measure in public contracting practices.⁵³ The *Drabik* court did not view *Croson* as permitting remedial action of a race-conscious type simply because of statistical findings of Underutilization of those minority companies that were ready, willing, and able to perform a public contracting need, but rather interpreted the *Croson* court as requiring that “governments . . . ‘identify discrimination with some specificity before they may use race-conscious relief’; explicit ‘findings of a constitutional or statutory violation must be made.’”⁵⁴

d) Disparity Indices

To evaluate whether there is parity in the Utilization of MWBEs in a particular area, parties can employ a statistical device known as the Disparity Index. The Disparity Index is a measure that compares the actual Utilization of MWBEs to that which would have been expected given their Availability in the Relevant Market. An index of “1” or “100” constitutes parity. Indices below that threshold demonstrate Underutilization, and indices greater than “1” or “100” demonstrate Overutilization.

The use of such an index was explained, and cited approvingly, in *H.B. Rowe*.⁵⁵ After noting the increasing use of the Disparity Index, the court explained that the State (through a consulting firm) calculated a Disparity Index for each relevant racial or gender group covered by the MWBE program, and further, conducted a standard deviation analysis on each of those indices using t-values or t-tests:

As explained in the 2004 study, “[t]he t-test determines if the relationship between availability and utilization (suggested by the disparity index value) supports a conclusion of disparity. In other words, the results of the t-test allow us to conclude if ... the results

⁵² See also *H.B. Rowe*, 615 F.3d at 241 (“[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.

⁵³ 214 F.3d at 735.

⁵⁴ 214 F.3d at 735, quoting *Croson* at 497. Moreover, the *Drabik* Court also indicated that the government would need to present evidence demonstrating “pervasive, systematic, and obstinate discriminatory conduct” in order to satisfy *Croson*. *Id.* at 737, quoting *Adarand III* at 237.

⁵⁵ 615 F.3d at 243-44.

found in the disparity index represent real disparity.” Put simply, standard deviation analysis “describes the probability that the measured disparity is the result of mere chance.”⁵⁶

The resulting calculations proffered as evidence in *H.B. Rowe* “demonstrated marked underutilization only of African American and Native American subcontractors,” according to the court.⁵⁷

The utility of a Disparity Index or similar measure to examine the Utilization of minorities or women in a particular industry has been recognized by a number of federal circuit courts.⁵⁸ Specifically, courts have considered these indices in the context of the “strong basis in evidence” standard established by *Croson*. The Fourth Circuit determined a Disparity Index of 0.46 for African Americans and 0.48 for Native Americans was indicative of underutilization of those groups.⁵⁹ Based on a Disparity Index of 0.22 for MBEs (Black, Asian, and Hispanic), the Ninth Circuit upheld the denial of a preliminary injunction to San Francisco's MBE plan.⁶⁰ Similarly, the Third Circuit held that a Disparity Index of 0.04 for minority firms in construction was “probative of discrimination in City contracting in the Philadelphia construction industry.”⁶¹

e) Use of Standard Deviation

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

Standard deviations were applied by the State of North Carolina in the statistical analysis utilized to defend its MWBE program in *H.B. Rowe*.⁶² 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

⁵⁶ *Id.* at 244, citing *Engineering Contractors*, 122 F.3d at 914. See also *Greene v. Georgia Pardons and Parole Board*, 807 F.Supp. 748, 755 and fn. 8 (N.D. Ga. 1992) (in the context of prisoners' rights equal protection litigation: “A common statistical term is the ‘T value,’ which shows the number of standard deviations a given value is away from the mean.”). The Disparity Index is calculated by dividing the percentage of available MWBE participation (amount of contract dollars) by the percentage of MWBEs in the relevant population of local firms. A Disparity Index of one (1) demonstrates full MWBE participation, whereas the closer the index is to zero, the greater the MWBE Underutilization. Some courts multiply the Disparity Index by 100, thereby creating a scale between 0 and 100, with 100 representing full MWBE Utilization. *Engineering Contractors*, 122 F.3d at 914.

⁵⁷ *Id.* at 245.

⁵⁸ See *Concrete Works*, 36 F.3d at 1523 n. 10 (10th Cir.1994) (employing Disparity Index); *Contractors Assn.*, 6 F.3d at 1005 (3d Cir.1993) (employing Disparity Index); *Associated Gen. Contrs. v. Coalition for Economic Equity*, 950 F.2d 1401, 1414 (9th Cir.1991) (same).

⁵⁹ *H.B. Rowe*, 615 F.3d at 245.

⁶⁰ *AGC v. Coalition for Economic Equity*, 950 F.2d 1401, 1414 (9th Cir. 1991).

⁶¹ *Contractors Assn.*, 6 F.3d at 1005.

⁶² 615 F.3d at 244-45.

American subcontractors, the t-value of 1.41 was significant at a confidence level of approximately 85 percent.⁶³

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.”⁶⁴

f) Regression Analysis

The federal case law indicates that the use of a regression analysis when measuring Utilization and possible disparities is a methodological “best practice.” Briefly stated, a regression analysis seeks to control for numerous factors other than discrimination (e.g., firm size, experience level) which may be causing or contributing to any numerical disparity identified.

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 then addressed the value of a regression analysis as a further evaluative tool:

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.”⁶⁵

Of note, a lack of a regression-type analysis was among the criticisms the *Drabik* court cited in rejecting the evidentiary proffer of the State of Ohio regarding its challenged MBEA legislation.⁶⁶

⁶³ *Id.* at 245.

⁶⁴ *Peightal v. Metropolitan Dade Cnty.*, 26 F.3d 1545, 1556 (11th Cir. 1994), quoting *Hazelwood School Dist.*, 433 U.S. at 308 n.14.

⁶⁵ *Id.* at 245-246.

⁶⁶ *Drabik*, 214 F.3d at 736-37 (noting the failure by the state, in doing its statistical comparisons, to consider “the relative size of the firms, either in terms of their ability to do particular work or in terms of the number of tasks they have the resources to complete.”).

g) Geographic Scope

The *Croson* Court also observed that because discrimination varies across market areas, state and local governments cannot rely on national statistics of discrimination in the disputed industry to draw conclusions about prevailing market conditions in their respective regions.⁶⁷ However, to confine the permissible data to a governmental entity's strict geographical borders would ignore the economic reality that contracts are awarded to firms located in adjacent areas. Thus, courts closely scrutinize pertinent data related to the jurisdictional area of the state or municipality.

Generally, the scope of the statistical analyses pertains to the geographic market area from which those firms doing business with the governmental entity come. In addition, disparities concerning utilization, firm size, and formation also are relevant in determining discrimination in a marketplace, as discussed above. When utilizing evidence of discrimination from nearby public entities and from within the relevant private marketplace, however, extra-jurisdictional evidence must still pertain to the operation of an industry within geographic boundaries of the jurisdiction. As the court wrote in *Tennessee Asphalt v. Farris*, “[s]tates and lesser units of local government are limited to remedying sufficiently identified past and present discrimination within their own spheres of authority.”⁶⁸

D. Requirement for Narrowly-Tailored Remedies

Any race-conscious contracting plan must be narrowly tailored to ameliorate the effects of past discrimination.⁶⁹ “Generally, while ‘goals’ are permissible, unyielding preferential ‘quotas’ will normally doom an affirmative action plan.”⁷⁰

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.”⁷¹

⁶⁷ *Croson*, 488 U.S. at 504.

⁶⁸ 942 F.2d 969, 974 (6th Cir. 1991).

⁶⁹ See *Michigan Rd. Builders Assn. v. Milliken*, 834 F.2d 583, 589-90 (6th Cir. 1987).

⁷⁰ *Viridi v. DeKalb Cnty. Sch. Dist.*, 135 Fed. Appx. 262 (11th Cir. 2005). See also *Sherbrooke Turf*, 345 F.3d at 972, citing *Croson*, 488 U.S. at 496.

⁷¹ 195 F.3d 698, at 706, quoting *Hayes v. North State Law Enforcement Officers Ass’n*, 10 F.3d 207, 216 (4th Cir. 1993).

In *Croson*, the Court considered similar factors, including 1) whether the city has first considered race-neutral measures, but found them to be ineffective;⁷² 2) the basis offered for the goals selected;⁷³ and 3) whether the program provides for waivers.^{74, 75}

As discussed earlier in this analysis, the Sixth Circuit in *Drabik* affirmed that Ohio's MBEA statute was not narrowly tailored to remedy past discrimination because: (1) the MBEA suffered from under inclusiveness and over inclusiveness, (lumping together racial and ethnic groups without identified discrimination); (2) the MBEA lacked a sunset date; and (3) the state failed to provide specific evidence that Ohio had considered race-neutral alternatives before adopting the plan to increase minority participation.⁷⁶ *Drabik* thus underscores that MWBE Programs must be designed so that the benefits of the programs are targeted specifically toward those firms that faced discrimination in the local marketplace; to withstand a challenge, relief must extend only to those minority groups for which there is evidence of discrimination.⁷⁷

Finally, "review" or "sunset" provisions are strongly suggested components for an MWBE program to guarantee that remedies do not out-live their intended remedial purpose. As an example, the Sixth Circuit in *Drabik* specifically cited the lack of a "sunset" provision in criticizing the MBEA instituted by the State of Ohio.⁷⁸

E. Conclusion

The *Croson* decision, handed down thirty years ago, continues to cast a long shadow over MWBE programs and legislation. Since that time, the Supreme Court and the federal Circuit Courts of Appeal have significantly refined the guidance by addressing the acceptable and proper methodologies for achieving the *Croson* legal standards.

In fact, the court in *Kossman* included in its opinion a lengthy legal overview of what it dubbed "*Croson's* Continuing Significance."⁷⁹ 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.⁸⁰ In many respects, this opinion provides a roadmap for success in implementing and defending an MWBE program under the current state of the law, with appropriate attribution and reference to *Croson*. It is in this legal environment that any MWBE program or policy implemented by the City of Cincinnati will be evaluated, including in the face of any legal/constitutional challenge.

⁷² 488 U.S. at 507. 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.").

⁷³ 488 U.S. at 507.

⁷⁴ *Id.* at 478, 508.

⁷⁵ See also *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.").

⁷⁶ 214 F.3d at 737-738.

⁷⁷ *Id.*, at 735 (discussing the need for a "fit" between past/present harm and the proffered remedy).

⁷⁸ *Drabik*, 214 F.3d at 738.

⁷⁹ *Kossman* at pp. *12-15

⁸⁰ *Id.* at pp. *12-22.

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- Ensley Branch NAACP v. Seibels*, 31 F.3d 1548 (11th Cir. 1994)
- Geyer Signal, Inc. v. Minnesota DOT*, 2014 WL 1309092 (D. Minn. 2014)
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- Gutter v. Bollinger*, 539 U.S. 306 (2003)
- Hayes v. North State Law Enforcement Officers Ass'n*, 10 F.3d 207 (4th Cir. 1993)
- Hazelwood School Dist. v. United States*, 433 U.S. 299 (1977)
- H.B. Rowe Co., Inc. v. Tippett*, 615 F.3d 233 (4th Cir. 2010)
- Kossmann Contracting Co. v. City of Houston*, 2016 WL 11473826 (S.D. Texas), *aff'd*, 2016 WL 1104363 (S.D. Texas 2016)

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Price v. City of Charlotte, 93 F.3d 1241 (4th Circuit 1996)

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

West Tenn. Chapter of Assoc. Builders & Contrs., Inc. v. City of Memphis, 302 F.Supp.2d 860 (W.D. Tenn. 2004)

W.H. Scott Constr. Co. v. City of Jackson, 199 F.3d 206 (5th Cir. 1999)

Wygant v. Jackson Bd. of Edn., 476 U.S. 267 (1986)

U.S. Const. Article III, Section 2, cl. 1

U.S. Const., Amendment XIV, Section 1

APPENDIX M

**City of Cincinnati 2022 Disparity Study
Data Assessment Report**

APPENDIX M: DATA ASSESSMENT REPORT

CITY OF CINCINNATI, OHIO
2022 DISPARITY STUDY
DATA ASSESSMENT REPORT

Griffin & Strong, P.C. (“GSPC”) conducted a virtual data assessment meeting on June 29, 2021 for the City of Cincinnati’s 2022 Disparity Study (“Study”). This report summarizes that meeting and sets forth action items and preliminary questions to be answered. It is necessary to issue a data assessment report prior to completing the data collection plan in order to confirm that GSPC has the correct understanding of how and where data is kept by the City. All data collection and transmission efforts will be handled by Jennifer.Bohl@cincinnati-oh.gov. Trisa.Hoane@cincinnati-oh.gov is the lead for overall project management and coordination efforts. Please copy Edgar.Deveyra@cincinnati-oh.gov on all project communications throughout the Study.

I. Scope Statement

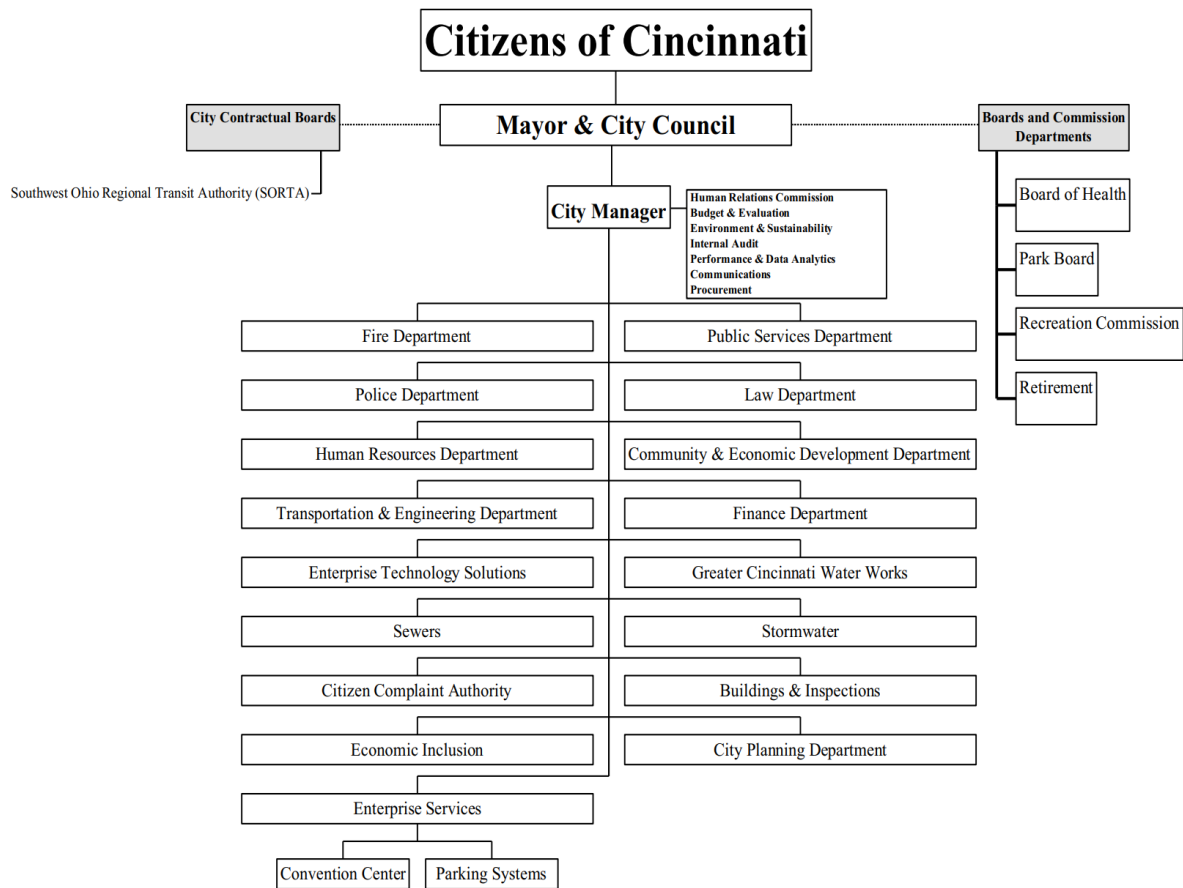
The purpose of this project is to determine whether and, if so, the extent to which statistically significant disparities exist between the minority-owned-and-controlled and women-owned-and-controlled business enterprises in the City’s market area that are ready, willing and able to perform work on City contracts and the actual utilization of those firms during the Study period as prime contractors and subcontractors on City Construction, Professional Services, and Supplies/ Services contracts as each is defined in CMC sections 323-1-C4, 321-1-P, 321-1-S2 and 321-1-S, respectively. Construction is also defined in CMC 321-1-C3 which may result in some difference between the CMB chapters. The Study will collect and analyze relevant data on “ready, willing and able” vendors in the areas of:

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

Business categories are defined in Chapter 321 of the Cincinnati Municipal Code for the City of Cincinnati.

The Study period for the disparity Study was determined as a five-year period from CY2016 to CY2020. The departments under the City Manager in the image below excepting Sewers are all included in the Study:

APPENDIX M: DATA ASSESSMENT REPORT



II. Preliminary Purchasing Practices

- A. Procurement is primarily centralized
- B. All purchase data is on Advantage Financial system
- C. Contract Thresholds
 - a. \$5,000 and below is decentralized and non-competitive
 - b. \$5,001 to \$50,000 are informal and require quotes.
 - c. \$50,001 and above require formal competitive solicitations.

APPENDIX M: DATA ASSESSMENT REPORT

III. Data Assessment**A. General Data**

- The City's procurement process and data maintenance are primarily centralized.
- The City does not have a third party that does part of procurement.
- The City tracks all spend with subcontractors (both certified and non-certified) on contracts subject to MBE/WBE goals and on contracts subject to SBE goals. This data is entered in B2Gnow. DEI tracks MBE/WBE subcontractor award data, as reported on Form 2003 submitted with bids and proposals, only on those contracts that include MBE and/or WBE subcontracting and that approved for award through the City Manager's procurement review meetings.
- The Study does not include the museum, Metropolitan Sewer District (MSD), not electric or transport is included.

B. Specific Data files**It was determined in this meeting that GSPC will need from the City:**

- Solicitations (Study Period)
- Vendor List (Current)
- Purchase Order (Study Period)
- Bids (Study Period)
- Payments (Study Period)
- Awards (Study Period)
- P-cards (GSPC recommends exclusion from Study)
- Subcontractor data (Study Period)
- Building Permit Data (Study Period)
- Certified Lists/Third Party (Current)

1. Solicitations

- The City's Office of Performance and Data Analytics maintains a master list of solicitations for the past five years.
- Solicitations for bids over \$50,000 are maintained in the Open Data Portal, and they are archived by current year and archived back to 2015. The Open Data Portal provides information from solicitation through award.
- Any information not found on Open Data Portal, the City will provide it for us.

APPENDIX M: DATA ASSESSMENT REPORT

- **Types of Solicitations**

- Sealed Bids
- Quotes
- RFPs
- RFQs
- Design Build

2. Vendor Lists

- Vendors do not have to be registered for informal quotes
- Vendors do have to be registered to respond to formal bids
- During registration, the vendor can register for as many NIGP codes that they want
- When vendors register, they add their business physical address. They are also encouraged to sign up for electronic payments.
- Vendors will receive the bid opportunity based on their self-identified NIGP code

All certified firms are asked to be registered as vendors. Certified subcontractors may or may not be registered as vendors, but most City-certified subcontractors should be registered as vendors. The City required proof of registration as part of the application process in the early years, and intake staff person provides registration information to applicants who are not registered.

3. Purchase Orders (POs)

- Purchase Orders are not in the Open Data Portal but are kept on Advantage Financial.
- Purchasing stores P.O. data as self-contained spot purchases
- Purchase orders are used for purchase between \$5,000 and \$50,000
- P.O. numbers and contracts numbers are usually the same.
- P.Os will have different versions (e.g. version 1, version 2) if they are modified, but will keep the same P.O. number with a cumulative amount. Therefore, GSPC will want the most recent version to reflect the full amount of the award.
- The P.O. will show the full amount of the award that is encumbered.

4. Bids (ITB, RFP, RFQ)

- The City has five years' worth of bid tab information
- For specific projects they require prequalification. However, majority of projects do not require prequalification.
- The City can provide the prequalification list

5. Payment Data

APPENDIX M: DATA ASSESSMENT REPORT

- Payment data contain purchase order number, contract number and general ledger code.
- Payment data is maintained by the purchasing department and account and audits
- External vendor registration feeds into financial system, which provides vendor information. This can be found on Advantage Financial.

6. Awards

- Estimated award data can be found on the Open Data Portal which is public.
- There are not Construction Manager at Risk or JV awards during the Study Period.

7. P-Cards (GSPC recommends exclusion from the Study)

- P-cards are used as a payment mechanism and not a procurement type.
- Transaction limit is \$3,000/purchase
- There is a paper reconciliation process for itemized purchases and the receipt is also included.
- The City Accounts and Audits usually stores this information. Since the pandemic, they have received electronic submissions.
- Each of these purchases are entered into the financial system with the payment name and object code level.

8. Subcontractors

- The City's Department of Economic Inclusion ("DEI") has data for certified and uncertified subcontractors, but only for projects that are subject to MWBE/SBE goals.
- Prime contractors are supposed to fill out a Subcontractor approval form (form 2004) for projects that are subject to MWBE/SBE goals. This data is later stored in B2Gnow.
- The same subcontractor approval form reference above is collected on construction projects subject to federal, state or local prevailing wage, including those that do not have inclusion goals. F This data is in PDF or paper form in either electronic or paper files for each individual project.
- Is not certain that primes will document their subcontractors. There are certain checks and balances to make sure that primes provide subcontractor information.
- Primes need to provide subcontractor information prior to beginning work. According to CMC Chapter 319, primes must pay subs within 10 days of receipt of payment from the City. The prime is then required to report payment to subs in the B2Gnow system by the 15th of the month following the close of the month in which payment was made. Subs then have 30 days from that date to confirm receipt of the reported payment in the B2Gnow system.
- All certified firms are required to be registered as vendors. Uncertified subcontractors may or may not be registered as vendors.
- The subcontractor data is linked to the prime contractor and the contract number.

APPENDIX M: DATA ASSESSMENT REPORT

- The various construction project managers may have records of release of lien waivers to track subcontractors.
- 9. City Building permit data
- Building and inspections maintains their building permit data
- The City has a Central permitting system

10. Certified List

- The City only counts firms that are certified by the City, not from state or other certifications.
- The City has to recertify every two years. The list of certified vendors and the work they are certified to perform is always publicly available through the Directory of Certified Firms but the ability to export that information into Excel has been disabled due to past harassment.
- There is no financial cost to apply.
- There is a quasi-reciprocal MBE certification process with Ohio Department of Administrative Services. Firms that have an Ohio Department of Administrative Services (Ohio DAS) MBE certification may apply through an abbreviated process with the City one time. The abbreviated process includes an independent vetting by the City only of the 3 City program eligibility requirements that differ from the state: (1) member of an eligible race/ethnicity group (2) at least 51% ownership by eligible race/ethnicity group for at least 12 months prior to application and (3) location. The certification, if approved, extends only for the period remaining under the certification with Ohio DAS. Thereafter, the firm must apply through the full certification process with the City, and those certifications are for 2-year periods.
- Hamilton County does not certify firms. City of Cincinnati is the certifying agency for the County's The Banks Project.

GSPC will pull certified lists from:

- City of Cincinnati
- State of Ohio DOT
- State of Ohio Department of Development (formerly under the Ohio Department of Administrative Services)
- The Metropolitan Sewer District SBE List

APPENDIX N

**City of Cincinnati 2022 Disparity Study
Survey of Business Owners Results**

City of Cincinnati 2022 Disparity Study

A brief note on how tables are calculated

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

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

Table 1. Is your company a not for profit organization or a government entity?									
	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Yes	0	0	0	0	0	0	0	0	0
	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
No	125	65	73	5	6	2	3	8	287
	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
Total	125	65	73	5	6	2	3	8	287

Table 2. Is your firm is ready, willing and able to do business as a prime contractor with City of Cincinnati?

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Yes	112	57	60	5	6	1	3	8	252
	89.6 %	87.7 %	82.2 %	100 %	100 %	50 %	100 %	100 %	87.8 %
No	13	8	13	0	0	1	0	0	35
	10.4 %	12.3 %	17.8 %	0 %	0 %	50 %	0 %	0 %	12.2 %
Total	125	65	73	5	6	2	3	8	287

Table 3. Is your firm ready, willing, and able to do business as a subcontractor on City of Cincinnati contracts?

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Yes	109	56	69	5	6	1	3	8	257
	87.2 %	86.2 %	94.5 %	100 %	100 %	50 %	100 %	100 %	89.5 %
No	16	9	4	0	0	1	0	0	30
	12.8 %	13.8 %	5.5 %	0 %	0 %	50 %	0 %	0 %	10.5 %
Total	125	65	73	5	6	2	3	8	287

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

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Construction	27	14	17	1	1	1	0	2	63
	21.6 %	21.5 %	23.3 %	20 %	16.7 %	50 %	0 %	25 %	22 %
Architecture & Engineering (A&E)	4	3	2	0	2	0	0	2	13
	3.2 %	4.6 %	2.7 %	0 %	33.3 %	0 %	0 %	25 %	4.5 %
Professional Services	34	16	25	1	3	0	3	1	83
	27.2 %	24.6 %	34.2 %	20 %	50 %	0 %	100 %	12.5 %	28.9 %
Other Services	39	21	25	2	0	1	0	1	89
	31.2 %	32.3 %	34.2 %	40 %	0 %	50 %	0 %	12.5 %	31 %
Goods	21	11	4	1	0	0	0	2	39
	16.8 %	16.9 %	5.5 %	20 %	0 %	0 %	0 %	25 %	13.6 %
Total	125	65	73	5	6	2	3	8	287

Table 5. How long has your company been in operation?

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Under 1 year	1	3	1	0	0	0	0	0	5
	0.8 %	4.6 %	1.4 %	0 %	0 %	0 %	0 %	0 %	1.7 %
1-5 years	8	6	24	2	0	2	0	0	42
	6.4 %	9.2 %	32.9 %	40 %	0 %	100 %	0 %	0 %	14.6 %
6-10 years	11	6	17	1	1	0	1	0	37
	8.8 %	9.2 %	23.3 %	20 %	16.7 %	0 %	33.3 %	0 %	12.9 %
11-15 years	10	12	10	0	0	0	0	0	32
	8 %	18.5 %	13.7 %	0 %	0 %	0 %	0 %	0 %	11.1 %
15-20 years	13	7	8	1	3	0	2	0	34
	10.4 %	10.8 %	11 %	20 %	50 %	0 %	66.7 %	0 %	11.8 %
Over 20 years	82	31	13	1	2	0	0	8	137
	65.6 %	47.7 %	17.8 %	20 %	33.3 %	0 %	0 %	100 %	47.7 %
Total	125	65	73	5	6	2	3	8	287

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

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Yes	0	65	43	4	3	1	2	0	118
	0 %	100 %	58.9 %	80 %	50 %	50 %	66.7 %	0 %	41.1 %
No	125	0	30	1	3	1	1	8	169
	100 %	0 %	41.1 %	20 %	50 %	50 %	33.3 %	100 %	58.9 %
Total	125	65	73	5	6	2	3	8	287

Table 7. Which of the following categories would you consider to be the race or ethnic origin with which the person or persons who own(s) at least 51% of the company identifies?

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Caucasian	116	64	0	0	0	0	0	0	180
	92.8 %	98.5 %	0 %	0 %	0 %	0 %	0 %	0 %	62.7 %
Black	0	0	73	0	0	0	0	0	73
	0 %	0 %	100 %	0 %	0 %	0 %	0 %	0 %	25.4 %
Hispanic	0	0	0	5	0	0	0	0	5
	0 %	0 %	0 %	100 %	0 %	0 %	0 %	0 %	1.7 %
Asian	0	0	0	0	6	0	0	0	6
	0 %	0 %	0 %	0 %	100 %	0 %	0 %	0 %	2.1 %
Native American	0	0	0	0	0	0	0	0	0
	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
Bi-racial	0	0	0	0	0	2	0	0	2
	0 %	0 %	0 %	0 %	0 %	100 %	0 %	0 %	0.7 %
Multi-Racial	0	0	0	0	0	0	2	0	2
	0 %	0 %	0 %	0 %	0 %	0 %	66.7 %	0 %	0.7 %
Publicly Traded Companies	0	0	0	0	0	0	0	5	5
	0 %	0 %	0 %	0 %	0 %	0 %	0 %	62.5 %	1.7 %
Other	9	1	0	0	0	0	1	3	14
	7.2 %	1.5 %	0 %	0 %	0 %	0 %	33.3 %	37.5 %	4.9 %
Total	125	65	73	5	6	2	3	8	287

Table 8. What is your current single project bonding limit?

Responses	<i>Owners' Minority Status</i>							<i>Total</i>	
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial		Publicly Traded Companies
\$100,000 or less	9	3	12	1	0	0	0	0	25
	7.2 %	4.6 %	16.4 %	20 %	0 %	0 %	0 %	0 %	8.7 %
\$100,001 - \$250,000	2	3	1	0	0	0	0	0	6
	1.6 %	4.6 %	1.4 %	0 %	0 %	0 %	0 %	0 %	2.1 %
\$250,001 - \$500,000	5	6	0	0	0	0	0	0	11
	4 %	9.2 %	0 %	0 %	0 %	0 %	0 %	0 %	3.8 %
\$500,001 - \$750,000	2	0	0	0	0	0	0	0	2
	1.6 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0.7 %
\$750,001 - \$1,000,000	11	3	13	0	0	0	0	0	27
	8.8 %	4.6 %	17.8 %	0 %	0 %	0 %	0 %	0 %	9.4 %
\$1,000,001 - \$2,500,000	11	7	6	0	0	0	1	0	25
	8.8 %	10.8 %	8.2 %	0 %	0 %	0 %	33.3 %	0 %	8.7 %
\$2,500,001 - \$5,000,000	12	4	2	0	0	0	0	0	18
	9.6 %	6.2 %	2.7 %	0 %	0 %	0 %	0 %	0 %	6.3 %
\$5,000,001 - \$10,000,000	4	2	0	0	0	0	0	0	6
	3.2 %	3.1 %	0 %	0 %	0 %	0 %	0 %	0 %	2.1 %
Over \$10 million	12	3	1	0	1	0	0	4	21
	9.6 %	4.6 %	1.4 %	0 %	16.7 %	0 %	0 %	50 %	7.3 %
	24	11	14	2	1	0	0	4	56

Table 8. What is your current single project bonding limit?

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Don't Know	19.2 %	16.9 %	19.2 %	40 %	16.7 %	0 %	0 %	50 %	19.5 %
Not Applicable	33	23	24	2	4	2	2	0	90
	26.4 %	35.4 %	32.9 %	40 %	66.7 %	100 %	66.7 %	0 %	31.4 %
<i>Total</i>	125	65	73	5	6	2	3	8	287

Table 9. What is the largest single contract your firm has been awarded by any governmental or non-governmental entity as a prime contractor or subcontractor since January 2016?

Responses	<i>Owners' Minority Status</i>							<i>Total</i>	
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial		Publicly Traded Companies
\$50,000 or less	15	11	20	0	0	0	1	0	47
	12 %	16.9 %	27.4 %	0 %	0 %	0 %	33.3 %	0 %	16.4 %
\$50,001 - \$100,000	13	3	4	2	2	0	0	0	24
	10.4 %	4.6 %	5.5 %	40 %	33.3 %	0 %	0 %	0 %	8.4 %
\$100,001 - \$250,000	15	10	9	1	0	1	0	0	36
	12 %	15.4 %	12.3 %	20 %	0 %	50 %	0 %	0 %	12.5 %
\$250,001 - \$500,000	9	9	4	0	1	0	1	0	24
	7.2 %	13.8 %	5.5 %	0 %	16.7 %	0 %	33.3 %	0 %	8.4 %
\$500,001 - \$750,000	2	3	3	0	0	0	0	0	8
	1.6 %	4.6 %	4.1 %	0 %	0 %	0 %	0 %	0 %	2.8 %
\$750,001 - \$1,000,000	7	3	4	0	0	0	0	1	15
	5.6 %	4.6 %	5.5 %	0 %	0 %	0 %	0 %	12.5 %	5.2 %
\$1,000,001 - \$2,500,000	10	6	4	0	1	0	0	0	21
	8 %	9.2 %	5.5 %	0 %	16.7 %	0 %	0 %	0 %	7.3 %
\$2,500,001 - \$5,000,000	14	3	2	0	1	0	0	0	20
	11.2 %	4.6 %	2.7 %	0 %	16.7 %	0 %	0 %	0 %	7 %
\$5,000,001 - \$10,000,000	7	1	1	0	0	0	0	0	9
	5.6 %	1.5 %	1.4 %	0 %	0 %	0 %	0 %	0 %	3.1 %
Over \$10	9	2	1	0	1	0	0	3	16

Table 9. What is the largest single contract your firm has been awarded by any governmental or non-governmental entity as a prime contractor or subcontractor since January 2016?

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
million	7.2 %	3.1 %	1.4 %	0 %	16.7 %	0 %	0 %	37.5 %	5.6 %
Don't Know	6	2	1	0	0	0	1	4	14
	4.8 %	3.1 %	1.4 %	0 %	0 %	0 %	33.3 %	50 %	4.9 %
Not applicable	18	12	20	2	0	1	0	0	53
	14.4 %	18.5 %	27.4 %	40 %	0 %	50 %	0 %	0 %	18.5 %
Total	125	65	73	5	6	2	3	8	287

Table 10. Indicate in which capacity or capacities you have performed work or provided goods on any public or private contract since January 2016.

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Prime Contractor and Subcontractor	59	27	24	1	6	0	1	6	124
	47.2 %	41.5 %	32.9 %	20 %	100 %	0 %	33.3 %	75 %	43.2 %
Prime Contractor	26	12	16	2	0	1	0	1	58
	20.8 %	18.5 %	21.9 %	40 %	0 %	50 %	0 %	12.5 %	20.2 %
Subcontractor	16	8	18	0	0	1	2	0	45
	12.8 %	12.3 %	24.7 %	0 %	0 %	50 %	66.7 %	0 %	15.7 %
Neither	24	18	15	2	0	0	0	1	60
	19.2 %	27.7 %	20.5 %	40 %	0 %	0 %	0 %	12.5 %	20.9 %
Total	125	65	73	5	6	2	3	8	287

Table 11. On average, how many employees does your company have including full-time and part-time staff? (Number of Employees)

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
None	1	2	4	0	0	0	0	0	7
	0.8 %	3.1 %	5.5 %	0 %	0 %	0 %	0 %	0 %	2.4 %
1-5	35	26	48	3	1	2	2	0	117
	28 %	40 %	65.8 %	60 %	16.7 %	100 %	66.7 %	0 %	40.8 %
6-35	45	32	19	2	4	0	0	0	102
	36 %	49.2 %	26 %	40 %	66.7 %	0 %	0 %	0 %	35.5 %
36-50	12	1	0	0	1	0	0	0	14
	9.6 %	1.5 %	0 %	0 %	16.7 %	0 %	0 %	0 %	4.9 %
51-75	8	2	0	0	0	0	0	0	10
	6.4 %	3.1 %	0 %	0 %	0 %	0 %	0 %	0 %	3.5 %
76-100	5	0	1	0	0	0	0	0	6
	4 %	0 %	1.4 %	0 %	0 %	0 %	0 %	0 %	2.1 %
101-300	16	1	1	0	0	0	0	3	21
	12.8 %	1.5 %	1.4 %	0 %	0 %	0 %	0 %	37.5 %	7.3 %
Over 300	3	1	0	0	0	0	1	5	10
	2.4 %	1.5 %	0 %	0 %	0 %	0 %	33.3 %	62.5 %	3.5 %
Total	125	65	73	5	6	2	3	8	287

Table 12. What is the highest level of education completed by the owner of your company? (If there are multiple owners, please choose the highest educational level among the owners).

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Some High School	2	0	1	0	0	0	0	0	3
	1.6 %	0 %	1.4 %	0 %	0 %	0 %	0 %	0 %	1 %
High School graduate	7	5	6	0	0	0	0	0	18
	5.6 %	7.7 %	8.2 %	0 %	0 %	0 %	0 %	0 %	6.3 %
Some College	17	7	15	2	0	0	0	0	41
	13.6 %	10.8 %	20.5 %	40 %	0 %	0 %	0 %	0 %	14.3 %
College Graduate	65	30	23	1	2	2	1	2	126
	52 %	46.2 %	31.5 %	20 %	33.3 %	100 %	33.3 %	25 %	43.9 %
Post Graduate Degree	22	19	21	2	4	0	1	2	71
	17.6 %	29.2 %	28.8 %	40 %	66.7 %	0 %	33.3 %	25 %	24.7 %
Trade or Technical Certificate	8	2	7	0	0	0	1	0	18
	6.4 %	3.1 %	9.6 %	0 %	0 %	0 %	33.3 %	0 %	6.3 %
Don't Know	4	2	0	0	0	0	0	4	10
	3.2 %	3.1 %	0 %	0 %	0 %	0 %	0 %	50 %	3.5 %
Total	125	65	73	5	6	2	3	8	287

Table 13. How many years of experience in your company's line of business does the owner of your company have? (If there are multiple owners, please choose the most amount of experience among the owners).

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
None	1	1	0	0	0	0	0	0	2
	0.8 %	1.5 %	0 %	0 %	0 %	0 %	0 %	0 %	0.7 %
1-5	1	3	5	0	0	0	0	0	9
	0.8 %	4.6 %	6.8 %	0 %	0 %	0 %	0 %	0 %	3.1 %
6-10	4	2	10	2	0	0	1	0	19
	3.2 %	3.1 %	13.7 %	40 %	0 %	0 %	33.3 %	0 %	6.6 %
11-15	3	7	10	1	0	0	0	0	21
	2.4 %	10.8 %	13.7 %	20 %	0 %	0 %	0 %	0 %	7.3 %
16-20	9	2	14	0	2	1	0	0	28
	7.2 %	3.1 %	19.2 %	0 %	33.3 %	50 %	0 %	0 %	9.8 %
More than 20	107	50	34	2	4	1	2	8	208
	85.6 %	76.9 %	46.6 %	40 %	66.7 %	50 %	66.7 %	100 %	72.5 %
Total	125	65	73	5	6	2	3	8	287

Table 14. Which of the following categories best approximates your company's gross revenues for calendar year 2020? Your best estimate will suffice.

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
\$100,000 or less	11	12	42	2	0	2	0	0	69
	8.8 %	18.5 %	57.5 %	40 %	0 %	100 %	0 %	0 %	24 %
\$100,001 - \$250,000	12	5	9	1	1	0	0	0	28
	9.6 %	7.7 %	12.3 %	20 %	16.7 %	0 %	0 %	0 %	9.8 %
\$250,001 - \$500,000	8	8	6	0	1	0	0	0	23
	6.4 %	12.3 %	8.2 %	0 %	16.7 %	0 %	0 %	0 %	8 %
\$500,001 - \$750,000	7	5	3	0	1	0	0	0	16
	5.6 %	7.7 %	4.1 %	0 %	16.7 %	0 %	0 %	0 %	5.6 %
\$750,001 - \$1,000,000	6	8	1	1	0	0	0	0	16
	4.8 %	12.3 %	1.4 %	20 %	0 %	0 %	0 %	0 %	5.6 %
\$1,000,001 - \$1,320,000	5	4	1	0	0	0	1	0	11
	4 %	6.2 %	1.4 %	0 %	0 %	0 %	33.3 %	0 %	3.8 %
\$1,320,001 - \$1,500,000	2	4	2	0	0	0	0	0	8
	1.6 %	6.2 %	2.7 %	0 %	0 %	0 %	0 %	0 %	2.8 %
\$1,500,001 - \$5,000,000	24	8	3	1	2	0	1	0	39
	19.2 %	12.3 %	4.1 %	20 %	33.3 %	0 %	33.3 %	0 %	13.6 %
\$5,000,001 - \$10,000,000	15	5	1	0	0	0	0	0	21
	12 %	7.7 %	1.4 %	0 %	0 %	0 %	0 %	0 %	7.3 %
\$10,000,001 -	5	2	0	0	0	0	0	0	7

Table 14. Which of the following categories best approximates your company's gross revenues for calendar year 2020? Your best estimate will suffice.

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
\$15,000,000	4 %	3.1 %	0 %	0 %	0 %	0 %	0 %	0 %	2.4 %
\$15,000,001 - \$20,000,000	1	0	1	0	1	0	1	0	4
	0.8 %	0 %	1.4 %	0 %	16.7 %	0 %	33.3 %	0 %	1.4 %
\$20,000,001 - \$39,500,000	11	2	1	0	0	0	0	0	14
	8.8 %	3.1 %	1.4 %	0 %	0 %	0 %	0 %	0 %	4.9 %
Over \$39,500,000	11	0	0	0	0	0	0	6	17
	8.8 %	0 %	0 %	0 %	0 %	0 %	0 %	75 %	5.9 %
Don't Know	7	2	3	0	0	0	0	2	14
	5.6 %	3.1 %	4.1 %	0 %	0 %	0 %	0 %	25 %	4.9 %
Total	125	65	73	5	6	2	3	8	287

Table 15. Is your company currently registered to do business with the City of Cincinnati?

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Yes	89	40	46	3	5	2	0	6	191
	71.2 %	61.5 %	63 %	60 %	83.3 %	100 %	0 %	75 %	66.6 %
No	10	9	9	1	0	0	0	1	30
	8 %	13.8 %	12.3 %	20 %	0 %	0 %	0 %	12.5 %	10.5 %
Not sure	26	16	18	1	1	0	3	1	66
	20.8 %	24.6 %	24.7 %	20 %	16.7 %	0 %	100 %	12.5 %	23 %
Total	125	65	73	5	6	2	3	8	287

Table 16. Is your company registered to do business with any other government entity (including but not limited to): Hamilton County, State of Ohio, Ohio DOT?

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Yes	82	38	45	2	5	0	1	6	179
	65.6 %	58.5 %	61.6 %	40 %	83.3 %	0 %	33.3 %	75 %	62.4 %
No	22	13	17	2	1	1	0	0	56
	17.6 %	20 %	23.3 %	40 %	16.7 %	50 %	0 %	0 %	19.5 %
Not sure	21	14	11	1	0	1	2	2	52
	16.8 %	21.5 %	15.1 %	20 %	0 %	50 %	66.7 %	25 %	18.1 %
Total	125	65	73	5	6	2	3	8	287

Table 17. Why is your company not registered to do business with City of Cincinnati? Indicate all that apply. [I do not know how to register]

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	7	9	7	0	0	0	0	0	23
	70 %	100 %	77.8 %	0 %	0 %	0 %	0 %	0 %	76.7 %
Selected	3	0	2	1	0	0	0	1	7
	30 %	0 %	22.2 %	100 %	0 %	0 %	0 %	100 %	23.3 %
Total	10	9	9	1	0	0	0	1	30

Table 18. I did not know there was a registry.

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	9	7	7	1	0	0	0	1	25
	90 %	77.8 %	77.8 %	100 %	0 %	0 %	0 %	100 %	83.3 %
Selected	1	2	2	0	0	0	0	0	5
	10 %	22.2 %	22.2 %	0 %	0 %	0 %	0 %	0 %	16.7 %
Total	10	9	9	1	0	0	0	1	30

Table 19. I do not see any benefit in registering.

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	10	7	8	1	0	0	0	1	27
	100 %	77.8 %	88.9 %	100 %	0 %	0 %	0 %	100 %	90 %
Selected	0	2	1	0	0	0	0	0	3
	0 %	22.2 %	11.1 %	0 %	0 %	0 %	0 %	0 %	10 %
Total	10	9	9	1	0	0	0	1	30

Table 20. I do not want to do business with government generally.

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	10	9	9	1	0	0	0	1	30
	100 %	100 %	100 %	100 %	0 %	0 %	0 %	100 %	100 %
Selected	0	0	0	0	0	0	0	0	0
	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
Total	10	9	9	1	0	0	0	1	30

Table 21. I do not want to do business with City of Cincinnati specifically.

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	8	9	9	1	0	0	0	1	28
	80 %	100 %	100 %	100 %	0 %	0 %	0 %	100 %	93.3 %
Selected	2	0	0	0	0	0	0	0	2
	20 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	6.7 %
Total	10	9	9	1	0	0	0	1	30

Table 22. I do not see opportunities in my field of work.

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	9	7	8	1	0	0	0	1	26
	90 %	77.8 %	88.9 %	100 %	0 %	0 %	0 %	100 %	86.7 %
Selected	1	2	1	0	0	0	0	0	4
	10 %	22.2 %	11.1 %	0 %	0 %	0 %	0 %	0 %	13.3 %
Total	10	9	9	1	0	0	0	1	30

Table 23. I do not believe firm would be awarded contract.

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	6	7	8	0	0	0	0	0	21
	60 %	77.8 %	88.9 %	0 %	0 %	0 %	0 %	0 %	70 %
Selected	4	2	1	1	0	0	0	1	9
	40 %	22.2 %	11.1 %	100 %	0 %	0 %	0 %	100 %	30 %
Total	10	9	9	1	0	0	0	1	30

Table 24. Other, please specify

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	8	7	3	1	0	0	0	1	20
	80 %	77.8 %	33.3 %	100 %	0 %	0 %	0 %	100 %	66.7 %
Selected	2	2	6	0	0	0	0	0	10
	20 %	22.2 %	66.7 %	0 %	0 %	0 %	0 %	0 %	33.3 %
Total	10	9	9	1	0	0	0	1	30

Table 25. From January 1, 2016, through December 31, 2020, how many times has your company submitted bids or proposals for projects as prime contractor on projects with each of the following projects: [City of Cincinnati Public Projects]

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
None	50	32	45	4	1	2	2	1	137
	40 %	49.2 %	61.6 %	80 %	16.7 %	100 %	66.7 %	12.5 %	47.7 %
1-10	41	22	20	1	4	0	1	2	91
	32.8 %	33.8 %	27.4 %	20 %	66.7 %	0 %	33.3 %	25 %	31.7 %
11-25	10	3	2	0	0	0	0	1	16
	8 %	4.6 %	2.7 %	0 %	0 %	0 %	0 %	12.5 %	5.6 %
26-50	4	1	2	0	0	0	0	1	8
	3.2 %	1.5 %	2.7 %	0 %	0 %	0 %	0 %	12.5 %	2.8 %
51-100	3	0	0	0	0	0	0	0	3
	2.4 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	1 %
Over 100	3	0	0	0	0	0	0	1	4
	2.4 %	0 %	0 %	0 %	0 %	0 %	0 %	12.5 %	1.4 %
Don't Know/NA	14	7	4	0	1	0	0	2	28
	11.2 %	10.8 %	5.5 %	0 %	16.7 %	0 %	0 %	25 %	9.8 %
Total	125	65	73	5	6	2	3	8	287

Table 26. Private Sector Projects

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
None	31	23	35	3	1	1	3	1	98
	24.8 %	35.4 %	47.9 %	60 %	16.7 %	50 %	100 %	12.5 %	34.1 %
1-10	16	12	20	0	1	0	0	0	49
	12.8 %	18.5 %	27.4 %	0 %	16.7 %	0 %	0 %	0 %	17.1 %
11-25	3	4	4	0	0	0	0	1	12
	2.4 %	6.2 %	5.5 %	0 %	0 %	0 %	0 %	12.5 %	4.2 %
26-50	5	10	1	0	1	0	0	0	17
	4 %	15.4 %	1.4 %	0 %	16.7 %	0 %	0 %	0 %	5.9 %
51-100	8	3	3	0	0	1	0	0	15
	6.4 %	4.6 %	4.1 %	0 %	0 %	50 %	0 %	0 %	5.2 %
Over 100	39	6	3	2	2	0	0	4	56
	31.2 %	9.2 %	4.1 %	40 %	33.3 %	0 %	0 %	50 %	19.5 %
Don't Know/NA	23	7	7	0	1	0	0	2	40
	18.4 %	10.8 %	9.6 %	0 %	16.7 %	0 %	0 %	25 %	13.9 %
Total	125	65	73	5	6	2	3	8	287

Table 27. Other Public Sector (non-City of Cincinnati Projects)

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
None	40	26	38	3	1	2	3	1	114
	32 %	40 %	52.1 %	60 %	16.7 %	100 %	100 %	12.5 %	39.7 %
1-10	18	15	19	0	1	0	0	0	53
	14.4 %	23.1 %	26 %	0 %	16.7 %	0 %	0 %	0 %	18.5 %
11-25	11	8	3	0	0	0	0	0	22
	8.8 %	12.3 %	4.1 %	0 %	0 %	0 %	0 %	0 %	7.7 %
26-50	8	5	3	1	2	0	0	0	19
	6.4 %	7.7 %	4.1 %	20 %	33.3 %	0 %	0 %	0 %	6.6 %
51-100	6	1	0	1	0	0	0	1	9
	4.8 %	1.5 %	0 %	20 %	0 %	0 %	0 %	12.5 %	3.1 %
Over 100	20	2	1	0	1	0	0	3	27
	16 %	3.1 %	1.4 %	0 %	16.7 %	0 %	0 %	37.5 %	9.4 %
Don't Know/NA	22	8	9	0	1	0	0	3	43
	17.6 %	12.3 %	12.3 %	0 %	16.7 %	0 %	0 %	37.5 %	15 %
Total	125	65	73	5	6	2	3	8	287

Table 28. From January 1, 2016, through December 31, 2020, how many times has your company been awarded contracts to perform as a prime contractor: [City of Cincinnati Public Projects]

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
None	61	36	55	3	1	2	3	3	164
	48.8 %	55.4 %	75.3 %	60 %	16.7 %	100 %	100 %	37.5 %	57.1 %
1-10	35	19	14	1	4	0	0	1	74
	28 %	29.2 %	19.2 %	20 %	66.7 %	0 %	0 %	12.5 %	25.8 %
11-25	9	0	0	0	0	0	0	0	9
	7.2 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	3.1 %
26-50	2	0	0	0	0	0	0	1	3
	1.6 %	0 %	0 %	0 %	0 %	0 %	0 %	12.5 %	1 %
51-100	1	0	0	0	0	0	0	0	1
	0.8 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0.3 %
Over 100	1	0	0	0	0	0	0	0	1
	0.8 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0.3 %
Don't Know/NA	16	10	4	1	1	0	0	3	35
	12.8 %	15.4 %	5.5 %	20 %	16.7 %	0 %	0 %	37.5 %	12.2 %
Total	125	65	73	5	6	2	3	8	287

Table 29. Private Sector Projects

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
None	38	22	43	2	1	1	3	0	110
	30.4 %	33.8 %	58.9 %	40 %	16.7 %	50 %	100 %	0 %	38.3 %
1-10	15	13	19	0	1	1	0	1	50
	12 %	20 %	26 %	0 %	16.7 %	50 %	0 %	12.5 %	17.4 %
11-25	7	5	0	0	0	0	0	0	12
	5.6 %	7.7 %	0 %	0 %	0 %	0 %	0 %	0 %	4.2 %
26-50	9	6	2	0	1	0	0	0	18
	7.2 %	9.2 %	2.7 %	0 %	16.7 %	0 %	0 %	0 %	6.3 %
51-100	7	4	0	1	1	0	0	0	13
	5.6 %	6.2 %	0 %	20 %	16.7 %	0 %	0 %	0 %	4.5 %
Over 100	28	4	1	1	1	0	0	4	39
	22.4 %	6.2 %	1.4 %	20 %	16.7 %	0 %	0 %	50 %	13.6 %
Don't Know/NA	21	11	8	1	1	0	0	3	45
	16.8 %	16.9 %	11 %	20 %	16.7 %	0 %	0 %	37.5 %	15.7 %
Total	125	65	73	5	6	2	3	8	287

Table 30. Other Public Sector (non-City of Cincinnati Projects)

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
None	46	27	49	2	2	2	3	0	131
	36.8 %	41.5 %	67.1 %	40 %	33.3 %	100 %	100 %	0 %	45.6 %
1-10	18	17	12	0	0	0	0	0	47
	14.4 %	26.2 %	16.4 %	0 %	0 %	0 %	0 %	0 %	16.4 %
11-25	13	3	1	1	1	0	0	1	20
	10.4 %	4.6 %	1.4 %	20 %	16.7 %	0 %	0 %	12.5 %	7 %
26-50	7	3	2	1	2	0	0	0	15
	5.6 %	4.6 %	2.7 %	20 %	33.3 %	0 %	0 %	0 %	5.2 %
51-100	7	0	0	0	0	0	0	1	8
	5.6 %	0 %	0 %	0 %	0 %	0 %	0 %	12.5 %	2.8 %
Over 100	11	1	0	0	0	0	0	1	13
	8.8 %	1.5 %	0 %	0 %	0 %	0 %	0 %	12.5 %	4.5 %
Don't Know/NA	23	14	9	1	1	0	0	5	53
	18.4 %	21.5 %	12.3 %	20 %	16.7 %	0 %	0 %	62.5 %	18.5 %
Total	125	65	73	5	6	2	3	8	287

Table 31. Approximately how many times did you serve as a subcontractor on a City of Cincinnati project from January 1, 2016, through December 31, 2020?

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
None	71	45	52	5	4	2	2	4	185
	56.8 %	69.2 %	71.2 %	100 %	66.7 %	100 %	66.7 %	50 %	64.5 %
1-10	34	12	16	0	2	0	1	0	65
	27.2 %	18.5 %	21.9 %	0 %	33.3 %	0 %	33.3 %	0 %	22.6 %
11-25	5	2	1	0	0	0	0	0	8
	4 %	3.1 %	1.4 %	0 %	0 %	0 %	0 %	0 %	2.8 %
26-50	1	0	3	0	0	0	0	1	5
	0.8 %	0 %	4.1 %	0 %	0 %	0 %	0 %	12.5 %	1.7 %
51-100	2	1	0	0	0	0	0	0	3
	1.6 %	1.5 %	0 %	0 %	0 %	0 %	0 %	0 %	1 %
Over 100	0	0	0	0	0	0	0	0	0
	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
Don't Know	12	5	1	0	0	0	0	3	21
	9.6 %	7.7 %	1.4 %	0 %	0 %	0 %	0 %	37.5 %	7.3 %
Total	125	65	73	5	6	2	3	8	287

Table 32. The following is a list of things that may prevent companies from bidding or obtaining work on a project as a prime contractor or subcontractor. In your experience, have any of the following been a barrier to your firm obtaining work on projects for City of Cincinnati? (Check all that apply) [Pre-qualification requirements]

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	107	56	64	3	4	2	2	5	243
	85.6 %	86.2 %	87.7 %	60 %	66.7 %	100 %	66.7 %	62.5 %	84.7 %
Selected	18	9	9	2	2	0	1	3	44
	14.4 %	13.8 %	12.3 %	40 %	33.3 %	0 %	33.3 %	37.5 %	15.3 %
Total	125	65	73	5	6	2	3	8	287

Table 33. Performance bond requirements

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	118	59	64	4	6	1	3	8	263
	94.4 %	90.8 %	87.7 %	80 %	100 %	50 %	100 %	100 %	91.6 %
Selected	7	6	9	1	0	1	0	0	24
	5.6 %	9.2 %	12.3 %	20 %	0 %	50 %	0 %	0 %	8.4 %
Total	125	65	73	5	6	2	3	8	287

Table 34. Volume of paperwork

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	101	55	62	4	5	2	3	6	238
	80.8 %	84.6 %	84.9 %	80 %	83.3 %	100 %	100 %	75 %	82.9 %
Selected	24	10	11	1	1	0	0	2	49
	19.2 %	15.4 %	15.1 %	20 %	16.7 %	0 %	0 %	25 %	17.1 %
Total	125	65	73	5	6	2	3	8	287

Table 35. Bid bond requirements

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	119	58	63	3	6	1	3	8	261
	95.2 %	89.2 %	86.3 %	60 %	100 %	50 %	100 %	100 %	90.9 %
Selected	6	7	10	2	0	1	0	0	26
	4.8 %	10.8 %	13.7 %	40 %	0 %	50 %	0 %	0 %	9.1 %
Total	125	65	73	5	6	2	3	8	287

Table 36. Financing

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	121	61	54	4	6	1	3	8	258
	96.8 %	93.8 %	74 %	80 %	100 %	50 %	100 %	100 %	89.9 %
Selected	4	4	19	1	0	1	0	0	29
	3.2 %	6.2 %	26 %	20 %	0 %	50 %	0 %	0 %	10.1 %
Total	125	65	73	5	6	2	3	8	287

Table 37. Insurance requirements

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	124	63	70	5	6	2	2	8	280
	99.2 %	96.9 %	95.9 %	100 %	100 %	100 %	66.7 %	100 %	97.6 %
Selected	1	2	3	0	0	0	1	0	7
	0.8 %	3.1 %	4.1 %	0 %	0 %	0 %	33.3 %	0 %	2.4 %
Total	125	65	73	5	6	2	3	8	287

Table 38. Bid specifications

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	112	60	64	4	5	2	3	6	256
	89.6 %	92.3 %	87.7 %	80 %	83.3 %	100 %	100 %	75 %	89.2 %
Selected	13	5	9	1	1	0	0	2	31
	10.4 %	7.7 %	12.3 %	20 %	16.7 %	0 %	0 %	25 %	10.8 %
Total	125	65	73	5	6	2	3	8	287

Table 39. Lack of access to competitive supplier pricing

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	121	61	63	5	5	2	3	5	265
	96.8 %	93.8 %	86.3 %	100 %	83.3 %	100 %	100 %	62.5 %	92.3 %
Selected	4	4	10	0	1	0	0	3	22
	3.2 %	6.2 %	13.7 %	0 %	16.7 %	0 %	0 %	37.5 %	7.7 %
Total	125	65	73	5	6	2	3	8	287

Table 40. Limited time given to prepare bid package or quote

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	116	60	63	4	4	2	2	6	257
	92.8 %	92.3 %	86.3 %	80 %	66.7 %	100 %	66.7 %	75 %	89.5 %
Selected	9	5	10	1	2	0	1	2	30
	7.2 %	7.7 %	13.7 %	20 %	33.3 %	0 %	33.3 %	25 %	10.5 %
Total	125	65	73	5	6	2	3	8	287

Table 41. Limited knowledge of purchasing/contracting policies and procedures

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	110	55	56	5	5	1	3	5	240
	88 %	84.6 %	76.7 %	100 %	83.3 %	50 %	100 %	62.5 %	83.6 %
Selected	15	10	17	0	1	1	0	3	47
	12 %	15.4 %	23.3 %	0 %	16.7 %	50 %	0 %	37.5 %	16.4 %
Total	125	65	73	5	6	2	3	8	287

Table 42. Language Barriers

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	124	65	72	5	6	2	3	8	285
	99.2 %	100 %	98.6 %	100 %	100 %	100 %	100 %	100 %	99.3 %
Selected	1	0	1	0	0	0	0	0	2
	0.8 %	0 %	1.4 %	0 %	0 %	0 %	0 %	0 %	0.7 %
Total	125	65	73	5	6	2	3	8	287

Table 43. Lack of experience

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	118	64	69	4	5	2	3	8	273
	94.4 %	98.5 %	94.5 %	80 %	83.3 %	100 %	100 %	100 %	95.1 %
Selected	7	1	4	1	1	0	0	0	14
	5.6 %	1.5 %	5.5 %	20 %	16.7 %	0 %	0 %	0 %	4.9 %
Total	125	65	73	5	6	2	3	8	287

Table 44. Lack of personnel

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	119	61	64	5	5	2	3	8	267
	95.2 %	93.8 %	87.7 %	100 %	83.3 %	100 %	100 %	100 %	93 %
Selected	6	4	9	0	1	0	0	0	20
	4.8 %	6.2 %	12.3 %	0 %	16.7 %	0 %	0 %	0 %	7 %
Total	125	65	73	5	6	2	3	8	287

Table 45. Contract too large

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	120	62	65	5	5	2	3	8	270
	96 %	95.4 %	89 %	100 %	83.3 %	100 %	100 %	100 %	94.1 %
Selected	5	3	8	0	1	0	0	0	17
	4 %	4.6 %	11 %	0 %	16.7 %	0 %	0 %	0 %	5.9 %
Total	125	65	73	5	6	2	3	8	287

Table 46. Contract too expensive to bid

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	120	59	66	4	5	2	3	8	267
	96 %	90.8 %	90.4 %	80 %	83.3 %	100 %	100 %	100 %	93 %
Selected	5	6	7	1	1	0	0	0	20
	4 %	9.2 %	9.6 %	20 %	16.7 %	0 %	0 %	0 %	7 %
Total	125	65	73	5	6	2	3	8	287

Table 47. Selection process

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	111	54	62	4	3	2	2	5	243
	88.8 %	83.1 %	84.9 %	80 %	50 %	100 %	66.7 %	62.5 %	84.7 %
Selected	14	11	11	1	3	0	1	3	44
	11.2 %	16.9 %	15.1 %	20 %	50 %	0 %	33.3 %	37.5 %	15.3 %
Total	125	65	73	5	6	2	3	8	287

Table 48. Not certified

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	115	62	66	4	5	2	3	8	265
	92 %	95.4 %	90.4 %	80 %	83.3 %	100 %	100 %	100 %	92.3 %
Selected	10	3	7	1	1	0	0	0	22
	8 %	4.6 %	9.6 %	20 %	16.7 %	0 %	0 %	0 %	7.7 %
Total	125	65	73	5	6	2	3	8	287

Table 49. Unfair competition with large firms

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	116	49	58	3	4	2	2	8	242
	92.8 %	75.4 %	79.5 %	60 %	66.7 %	100 %	66.7 %	100 %	84.3 %
Selected	9	16	15	2	2	0	1	0	45
	7.2 %	24.6 %	20.5 %	40 %	33.3 %	0 %	33.3 %	0 %	15.7 %
Total	125	65	73	5	6	2	3	8	287

Table 50. Lack of union membership

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	116	63	67	5	6	2	3	8	270
	92.8 %	96.9 %	91.8 %	100 %	100 %	100 %	100 %	100 %	94.1 %
Selected	9	2	6	0	0	0	0	0	17
	7.2 %	3.1 %	8.2 %	0 %	0 %	0 %	0 %	0 %	5.9 %
Total	125	65	73	5	6	2	3	8	287

Table 51. Lack of existing relationship with the City

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	105	48	53	1	5	1	3	5	221
	84 %	73.8 %	72.6 %	20 %	83.3 %	50 %	100 %	62.5 %	77 %
Selected	20	17	20	4	1	1	0	3	66
	16 %	26.2 %	27.4 %	80 %	16.7 %	50 %	0 %	37.5 %	23 %
Total	125	65	73	5	6	2	3	8	287

Table 52. None of the above

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	69	42	48	5	4	2	3	6	179
	55.2 %	64.6 %	65.8 %	100 %	66.7 %	100 %	100 %	75 %	62.4 %
Selected	56	23	25	0	2	0	0	2	108
	44.8 %	35.4 %	34.2 %	0 %	33.3 %	0 %	0 %	25 %	37.6 %
Total	125	65	73	5	6	2	3	8	287

Table 53. As a prime contractor, what is the amount of time from the date you submit your approved invoice to the City it typically takes to receive payment from the City for your services on City of Cincinnati projects?

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Less than 30 days	7	2	1	0	1	0	0	0	11
	10.9 %	6.9 %	5.6 %	0 %	20 %	0 %	0 %	0 %	8.9 %
30-60 days	36	9	7	1	2	0	0	2	57
	56.2 %	31 %	38.9 %	50 %	40 %	0 %	0 %	40 %	46.3 %
61-90 days	4	2	3	0	1	0	0	1	11
	6.2 %	6.9 %	16.7 %	0 %	20 %	0 %	0 %	20 %	8.9 %
91-120 days	1	2	0	0	1	0	0	0	4
	1.6 %	6.9 %	0 %	0 %	20 %	0 %	0 %	0 %	3.3 %
Over 120 days	1	2	0	0	0	0	0	0	3
	1.6 %	6.9 %	0 %	0 %	0 %	0 %	0 %	0 %	2.4 %
Don't Know/NA	15	12	7	1	0	0	0	2	37
	23.4 %	41.4 %	38.9 %	50 %	0 %	0 %	0 %	40 %	30.1 %
Total	64	29	18	2	5	0	0	5	123

Table 54. As a subcontractor, what is the amount of time from the date you submit your approved invoice to the prime contractor (or higher-tier subcontractor) it typically takes to receive payment from the prime contractor (or higher-tier subcontractor)?

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Less than 30 days	5	3	7	0	0	0	0	0	15
	9.3 %	15 %	33.3 %	0 %	0 %	0 %	0 %	0 %	14.7 %
30-60 days	23	7	6	0	1	0	0	1	38
	42.6 %	35 %	28.6 %	0 %	50 %	0 %	0 %	25 %	37.3 %
61-90 days	9	3	3	0	0	0	1	1	17
	16.7 %	15 %	14.3 %	0 %	0 %	0 %	100 %	25 %	16.7 %
91-120 days	4	2	2	0	1	0	0	0	9
	7.4 %	10 %	9.5 %	0 %	50 %	0 %	0 %	0 %	8.8 %
Over 120 days	2	1	0	0	0	0	0	0	3
	3.7 %	5 %	0 %	0 %	0 %	0 %	0 %	0 %	2.9 %
Don't Know/NA	11	4	3	0	0	0	0	2	20
	20.4 %	20 %	14.3 %	0 %	0 %	0 %	0 %	50 %	19.6 %
Total	54	20	21	0	2	0	1	4	102

Table 55. Is your company a certified firm? (For example, Minority, Woman, EDGE, Disadvantaged, Small, SLBE or ELBE business)

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Yes	25	40	46	3	6	2	1	1	124
	20 %	61.5 %	63 %	60 %	100 %	100 %	33.3 %	12.5 %	43.2 %
No	100	25	27	2	0	0	2	7	163
	80 %	38.5 %	37 %	40 %	0 %	0 %	66.7 %	87.5 %	56.8 %
Total	125	65	73	5	6	2	3	8	287

Table 56. What is your certification? (Check all that apply) [MBE (Minority Business Enterprise)]

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Yes	0	2	42	2	5	0	1	0	52
	0 %	5 %	91.3 %	66.7 %	83.3 %	0 %	100 %	0 %	41.9 %
No	19	27	4	0	1	1	0	1	53
	76 %	67.5 %	8.7 %	0 %	16.7 %	50 %	0 %	100 %	42.7 %
N/A	6	11	0	1	0	1	0	0	19
	24 %	27.5 %	0 %	33.3 %	0 %	50 %	0 %	0 %	15.3 %
Total	25	40	46	3	6	2	1	1	124

Table 57. WBE (Women Business Enterprise)

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Yes	0	36	23	2	3	1	0	0	65
	0 %	90 %	50 %	66.7 %	50 %	50 %	0 %	0 %	52.4 %
No	19	1	16	1	1	0	1	1	40
	76 %	2.5 %	34.8 %	33.3 %	16.7 %	0 %	100 %	100 %	32.3 %
N/A	6	3	7	0	2	1	0	0	19
	24 %	7.5 %	15.2 %	0 %	33.3 %	50 %	0 %	0 %	15.3 %
Total	25	40	46	3	6	2	1	1	124

Table 58. DBE (Disadvantaged Business Enterprise)

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Yes	0	9	20	0	3	0	0	0	32
	0 %	22.5 %	43.5 %	0 %	50 %	0 %	0 %	0 %	25.8 %
No	18	20	19	1	1	1	1	1	62
	72 %	50 %	41.3 %	33.3 %	16.7 %	50 %	100 %	100 %	50 %
N/A	7	11	7	2	2	1	0	0	30
	28 %	27.5 %	15.2 %	66.7 %	33.3 %	50 %	0 %	0 %	24.2 %
Total	25	40	46	3	6	2	1	1	124

Table 59. SBE (Small Business Enterprise)

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Yes	18	28	31	1	3	1	0	1	83
	72 %	70 %	67.4 %	33.3 %	50 %	50 %	0 %	100 %	66.9 %
No	4	10	12	0	2	1	1	0	30
	16 %	25 %	26.1 %	0 %	33.3 %	50 %	100 %	0 %	24.2 %
N/A	3	2	3	2	1	0	0	0	11
	12 %	5 %	6.5 %	66.7 %	16.7 %	0 %	0 %	0 %	8.9 %
Total	25	40	46	3	6	2	1	1	124

Table 60. EDGE (Encouraging Diversity, Growth and Equity)

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Yes	2	6	21	3	4	0	0	0	36
	8 %	15 %	45.7 %	100 %	66.7 %	0 %	0 %	0 %	29 %
No	16	25	15	0	1	1	1	1	60
	64 %	62.5 %	32.6 %	0 %	16.7 %	50 %	100 %	100 %	48.4 %
N/A	7	9	10	0	1	1	0	0	28
	28 %	22.5 %	21.7 %	0 %	16.7 %	50 %	0 %	0 %	22.6 %
Total	25	40	46	3	6	2	1	1	124

Table 61. SLBE (Small Local Business Enterprise)

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Yes	8	9	9	1	1	0	0	0	28
	32 %	22.5 %	19.6 %	33.3 %	16.7 %	0 %	0 %	0 %	22.6 %
No	11	25	28	0	2	1	1	1	69
	44 %	62.5 %	60.9 %	0 %	33.3 %	50 %	100 %	100 %	55.6 %
N/A	6	6	9	2	3	1	0	0	27
	24 %	15 %	19.6 %	66.7 %	50 %	50 %	0 %	0 %	21.8 %
Total	25	40	46	3	6	2	1	1	124

Table 62. Other, please specify

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Yes	5	7	3	1	0	0	0	0	16
	27.8 %	29.2 %	10.7 %	50 %	0 %	0 %	0 %	0 %	20.5 %
No	8	9	11	0	2	0	0	0	30
	44.4 %	37.5 %	39.3 %	0 %	40 %	0 %	0 %	0 %	38.5 %
N/A	5	8	14	1	3	1	0	0	32
	27.8 %	33.3 %	50 %	50 %	60 %	100 %	0 %	0 %	41 %
Total	18	24	28	2	5	1	0	0	78

Table 63. Why is your company not certified? [I do not understand the certification process.]

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	81	20	15	1	0	0	1	7	125
	81 %	80 %	55.6 %	50 %	0 %	0 %	50 %	100 %	76.7 %
Selected	19	5	12	1	0	0	1	0	38
	19 %	20 %	44.4 %	50 %	0 %	0 %	50 %	0 %	23.3 %
Total	100	25	27	2	0	0	2	7	163

Table 64. We do not meet one or more of the requirements for certification.

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	39	24	23	2	0	0	2	0	90
	39 %	96 %	85.2 %	100 %	0 %	0 %	100 %	0 %	55.2 %
Selected	61	1	4	0	0	0	0	7	73
	61 %	4 %	14.8 %	0 %	0 %	0 %	0 %	100 %	44.8 %
Total	100	25	27	2	0	0	2	7	163

Table 65. Certification is too expensive.

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	100	20	26	2	0	0	2	7	157
	100 %	80 %	96.3 %	100 %	0 %	0 %	100 %	100 %	96.3 %
Selected	0	5	1	0	0	0	0	0	6
	0 %	20 %	3.7 %	0 %	0 %	0 %	0 %	0 %	3.7 %
Total	100	25	27	2	0	0	2	7	163

Table 66. I do not want governmental agencies to have information about my company.

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	96	24	27	2	0	0	2	7	158
	96 %	96 %	100 %	100 %	0 %	0 %	100 %	100 %	96.9 %
Selected	4	1	0	0	0	0	0	0	5
	4 %	4 %	0 %	0 %	0 %	0 %	0 %	0 %	3.1 %
Total	100	25	27	2	0	0	2	7	163

Table 67. I have not had time to get certified/the process is too time-consuming.

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	87	17	21	0	0	0	1	7	133
	87 %	68 %	77.8 %	0 %	0 %	0 %	50 %	100 %	81.6 %
Selected	13	8	6	2	0	0	1	0	30
	13 %	32 %	22.2 %	100 %	0 %	0 %	50 %	0 %	18.4 %
Total	100	25	27	2	0	0	2	7	163

Table 68. Certification does not benefit and/or will negatively impact my company.

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	96	23	27	2	0	0	2	7	157
	96 %	92 %	100 %	100 %	0 %	0 %	100 %	100 %	96.3 %
Selected	4	2	0	0	0	0	0	0	6
	4 %	8 %	0 %	0 %	0 %	0 %	0 %	0 %	3.7 %
Total	100	25	27	2	0	0	2	7	163

Table 69. I do not understand how certification can benefit my firm.

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	80	18	23	2	0	0	2	7	132
	80 %	72 %	85.2 %	100 %	0 %	0 %	100 %	100 %	81 %
Selected	20	7	4	0	0	0	0	0	31
	20 %	28 %	14.8 %	0 %	0 %	0 %	0 %	0 %	19 %
Total	100	25	27	2	0	0	2	7	163

Table 70. My firm previously was certified, but it did not help my business.

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	95	19	26	2	0	0	2	7	151
	95 %	76 %	96.3 %	100 %	0 %	0 %	100 %	100 %	92.6 %
Selected	5	6	1	0	0	0	0	0	12
	5 %	24 %	3.7 %	0 %	0 %	0 %	0 %	0 %	7.4 %
Total	100	25	27	2	0	0	2	7	163

Table 71. Between January 1, 2016, through December 31, 2020, did your company apply for and receive any of the following? [Business start-up loan?]

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Never Applied	120	62	61	5	6	2	3	8	267
	96 %	95.4 %	83.6 %	100 %	100 %	100 %	100 %	100 %	93 %
Applied, Never Approved	1	2	9	0	0	0	0	0	12
	0.8 %	3.1 %	12.3 %	0 %	0 %	0 %	0 %	0 %	4.2 %
Applied, Some Approved	1	0	2	0	0	0	0	0	3
	0.8 %	0 %	2.7 %	0 %	0 %	0 %	0 %	0 %	1 %
Applied, All Approved	3	1	1	0	0	0	0	0	5
	2.4 %	1.5 %	1.4 %	0 %	0 %	0 %	0 %	0 %	1.7 %
Total	125	65	73	5	6	2	3	8	287

Table 72. Operating capital loan?

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Never Applied	101	48	53	3	4	2	2	7	220
	80.8 %	73.8 %	72.6 %	60 %	66.7 %	100 %	66.7 %	87.5 %	76.7 %
Applied, Never Approved	1	2	12	0	0	0	0	0	15
	0.8 %	3.1 %	16.4 %	0 %	0 %	0 %	0 %	0 %	5.2 %
Applied, Some Approved	0	5	5	1	1	0	0	0	12
	0 %	7.7 %	6.8 %	20 %	16.7 %	0 %	0 %	0 %	4.2 %
Applied, All Approved	23	10	3	1	1	0	1	1	40
	18.4 %	15.4 %	4.1 %	20 %	16.7 %	0 %	33.3 %	12.5 %	13.9 %
Total	125	65	73	5	6	2	3	8	287

Table 73. Equipment loan?

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Never Applied	93	49	63	5	5	2	3	8	228
	74.4 %	75.4 %	86.3 %	100 %	83.3 %	100 %	100 %	100 %	79.4 %
Applied, Never Approved	1	1	9	0	0	0	0	0	11
	0.8 %	1.5 %	12.3 %	0 %	0 %	0 %	0 %	0 %	3.8 %
Applied, Some Approved	0	1	0	0	0	0	0	0	1
	0 %	1.5 %	0 %	0 %	0 %	0 %	0 %	0 %	0.3 %
Applied, All Approved	31	14	1	0	1	0	0	0	47
	24.8 %	21.5 %	1.4 %	0 %	16.7 %	0 %	0 %	0 %	16.4 %
Total	125	65	73	5	6	2	3	8	287

Table 74. Commercial/Professional liability insurance?

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Never Applied	44	24	35	2	2	2	1	3	113
	35.2 %	36.9 %	47.9 %	40 %	33.3 %	100 %	33.3 %	37.5 %	39.4 %
Applied, Never Approved	0	1	4	0	0	0	0	0	5
	0 %	1.5 %	5.5 %	0 %	0 %	0 %	0 %	0 %	1.7 %
Applied, Some Approved	0	0	6	0	1	0	0	0	7
	0 %	0 %	8.2 %	0 %	16.7 %	0 %	0 %	0 %	2.4 %
Applied, All Approved	81	40	28	3	3	0	2	5	162
	64.8 %	61.5 %	38.4 %	60 %	50 %	0 %	66.7 %	62.5 %	56.4 %
Total	125	65	73	5	6	2	3	8	287

Table 75. Paycheck Protection Program Loan

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Never Applied	49	19	28	3	0	1	1	6	107
	39.2 %	29.2 %	38.4 %	60 %	0 %	50 %	33.3 %	75 %	37.3 %
Applied, Never Approved	0	1	8	0	0	1	0	0	10
	0 %	1.5 %	11 %	0 %	0 %	50 %	0 %	0 %	3.5 %
Applied, Some Approved	2	4	8	0	1	0	0	0	15
	1.6 %	6.2 %	11 %	0 %	16.7 %	0 %	0 %	0 %	5.2 %
Applied, All Approved	74	41	29	2	5	0	2	2	155
	59.2 %	63.1 %	39.7 %	40 %	83.3 %	0 %	66.7 %	25 %	54 %
Total	125	65	73	5	6	2	3	8	287

Table 76. What is the largest commercial loan you received from January 1, 2016, through December 31, 2020?

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
\$50,000 or less	25	13	22	1	2	1	1	0	65
	20 %	20 %	30.1 %	20 %	33.3 %	50 %	33.3 %	0 %	22.6 %
\$50,001 - \$100,000	7	5	3	0	1	0	0	0	16
	5.6 %	7.7 %	4.1 %	0 %	16.7 %	0 %	0 %	0 %	5.6 %
\$100,001 - \$300,000	14	6	3	0	0	0	1	0	24
	11.2 %	9.2 %	4.1 %	0 %	0 %	0 %	33.3 %	0 %	8.4 %
\$300,001 - \$500,000	6	5	0	0	1	0	0	0	12
	4.8 %	7.7 %	0 %	0 %	16.7 %	0 %	0 %	0 %	4.2 %
\$500,001 - \$1,000,000	5	5	0	0	1	0	0	0	11
	4 %	7.7 %	0 %	0 %	16.7 %	0 %	0 %	0 %	3.8 %
\$1,000,001 - \$3,000,000	6	3	2	0	0	0	0	0	11
	4.8 %	4.6 %	2.7 %	0 %	0 %	0 %	0 %	0 %	3.8 %
\$3,000,001 - \$5,000,000	2	0	0	0	0	0	0	0	2
	1.6 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0.7 %
\$5,000,001 - \$10,000,000	3	0	0	0	0	0	0	0	3
	2.4 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	1 %
Over \$10,000,000	0	0	0	0	0	0	0	0	0
	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
Don't	57	28	43	4	1	1	1	8	143

Table 76. What is the largest commercial loan you received from January 1, 2016, through December 31, 2020?

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Know/NA	45.6 %	43.1 %	58.9 %	80 %	16.7 %	50 %	33.3 %	100 %	49.8 %
<i>Total</i>	125	65	73	5	6	2	3	8	287

Table 77. How many times have you been denied a commercial (business) bank loan from January 1, 2016, through December 31, 2020?

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
None	100	49	32	4	4	0	2	3	194
	80 %	75.4 %	43.8 %	80 %	66.7 %	0 %	66.7 %	37.5 %	67.6 %
1-10	3	8	24	0	2	0	1	0	38
	2.4 %	12.3 %	32.9 %	0 %	33.3 %	0 %	33.3 %	0 %	13.2 %
11-25	0	0	1	0	0	0	0	0	1
	0 %	0 %	1.4 %	0 %	0 %	0 %	0 %	0 %	0.3 %
26-50	0	0	0	0	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 %	0 %	0 %	0 %	0 %
Over 100	0	0	0	0	0	0	0	0	0
	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
Don't Know/NA	22	8	16	1	0	2	0	5	54
	17.6 %	12.3 %	21.9 %	20 %	0 %	100 %	0 %	62.5 %	18.8 %
Total	125	65	73	5	6	2	3	8	287

Table 78. Of the items your company was denied, what was the denial reason? (Please check all that apply)[Business start-up loan?] [Insufficient Documentation]

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	2	2	11	0	0	0	0	0	15
	100 %	100 %	100 %	0 %	0 %	0 %	0 %	0 %	100 %
Selected	0	0	0	0	0	0	0	0	0
	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
Total	2	2	11	0	0	0	0	0	15

Table 79. Insufficient Business History

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	2	2	9	0	0	0	0	0	13
	100 %	100 %	81.8 %	0 %	0 %	0 %	0 %	0 %	86.7 %
Selected	0	0	2	0	0	0	0	0	2
	0 %	0 %	18.2 %	0 %	0 %	0 %	0 %	0 %	13.3 %
Total	2	2	11	0	0	0	0	0	15

Table 80. Confusion about Process

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	2	2	10	0	0	0	0	0	14
	100 %	100 %	90.9 %	0 %	0 %	0 %	0 %	0 %	93.3 %
Selected	0	0	1	0	0	0	0	0	1
	0 %	0 %	9.1 %	0 %	0 %	0 %	0 %	0 %	6.7 %
Total	2	2	11	0	0	0	0	0	15

Table 81. Credit History

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	2	2	5	0	0	0	0	0	9
	100 %	100 %	45.5 %	0 %	0 %	0 %	0 %	0 %	60 %
Selected	0	0	6	0	0	0	0	0	6
	0 %	0 %	54.5 %	0 %	0 %	0 %	0 %	0 %	40 %
Total	2	2	11	0	0	0	0	0	15

Table 82. Don't Know

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	2	0	10	0	0	0	0	0	12
	100 %	0 %	90.9 %	0 %	0 %	0 %	0 %	0 %	80 %
Selected	0	2	1	0	0	0	0	0	3
	0 %	100 %	9.1 %	0 %	0 %	0 %	0 %	0 %	20 %
Total	2	2	11	0	0	0	0	0	15

Table 83. N/A

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	0	2	8	0	0	0	0	0	10
	0 %	100 %	72.7 %	0 %	0 %	0 %	0 %	0 %	66.7 %
Selected	2	0	3	0	0	0	0	0	5
	100 %	0 %	27.3 %	0 %	0 %	0 %	0 %	0 %	33.3 %
Total	2	2	11	0	0	0	0	0	15

Table 84. Of the items your company was denied, what was the denial reason? (Please check all that apply) [Operating capital loan?] [Insufficient Documentation]

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	1	7	17	1	1	0	0	0	27
	100 %	100 %	100 %	100 %	100 %	0 %	0 %	0 %	100 %
Selected	0	0	0	0	0	0	0	0	0
	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
Total	1	7	17	1	1	0	0	0	27

Table 85. Insufficient Business History

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	1	6	15	1	1	0	0	0	24
	100 %	85.7 %	88.2 %	100 %	100 %	0 %	0 %	0 %	88.9 %
Selected	0	1	2	0	0	0	0	0	3
	0 %	14.3 %	11.8 %	0 %	0 %	0 %	0 %	0 %	11.1 %
Total	1	7	17	1	1	0	0	0	27

Table 86. Confusion about Process

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	1	7	15	1	1	0	0	0	25
	100 %	100 %	88.2 %	100 %	100 %	0 %	0 %	0 %	92.6 %
Selected	0	0	2	0	0	0	0	0	2
	0 %	0 %	11.8 %	0 %	0 %	0 %	0 %	0 %	7.4 %
Total	1	7	17	1	1	0	0	0	27

Table 87. Credit History

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	0	7	7	1	1	0	0	0	16
	0 %	100 %	41.2 %	100 %	100 %	0 %	0 %	0 %	59.3 %
Selected	1	0	10	0	0	0	0	0	11
	100 %	0 %	58.8 %	0 %	0 %	0 %	0 %	0 %	40.7 %
Total	1	7	17	1	1	0	0	0	27

Table 88. Don't Know

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	0	4	15	0	0	0	0	0	19
	0 %	57.1 %	88.2 %	0 %	0 %	0 %	0 %	0 %	70.4 %
Selected	1	3	2	1	1	0	0	0	8
	100 %	42.9 %	11.8 %	100 %	100 %	0 %	0 %	0 %	29.6 %
Total	1	7	17	1	1	0	0	0	27

Table 89. N/A

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	1	4	13	1	1	0	0	0	20
	100 %	57.1 %	76.5 %	100 %	100 %	0 %	0 %	0 %	74.1 %
Selected	0	3	4	0	0	0	0	0	7
	0 %	42.9 %	23.5 %	0 %	0 %	0 %	0 %	0 %	25.9 %
Total	1	7	17	1	1	0	0	0	27

Table 90. 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	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	1	2	9	0	0	0	0	0	12
	100 %	100 %	100 %	0 %	0 %	0 %	0 %	0 %	100 %
Selected	0	0	0	0	0	0	0	0	0
	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
Total	1	2	9	0	0	0	0	0	12

Table 91. Insufficient Business History

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	1	2	9	0	0	0	0	0	12
	100 %	100 %	100 %	0 %	0 %	0 %	0 %	0 %	100 %
Selected	0	0	0	0	0	0	0	0	0
	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
Total	1	2	9	0	0	0	0	0	12

Table 92. Confusion about Process

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	1	2	8	0	0	0	0	0	11
	100 %	100 %	88.9 %	0 %	0 %	0 %	0 %	0 %	91.7 %
Selected	0	0	1	0	0	0	0	0	1
	0 %	0 %	11.1 %	0 %	0 %	0 %	0 %	0 %	8.3 %
Total	1	2	9	0	0	0	0	0	12

Table 93. Credit History

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	0	2	3	0	0	0	0	0	5
	0 %	100 %	33.3 %	0 %	0 %	0 %	0 %	0 %	41.7 %
Selected	1	0	6	0	0	0	0	0	7
	100 %	0 %	66.7 %	0 %	0 %	0 %	0 %	0 %	58.3 %
Total	1	2	9	0	0	0	0	0	12

Table 94. Don't Know

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	1	1	7	0	0	0	0	0	9
	100 %	50 %	77.8 %	0 %	0 %	0 %	0 %	0 %	75 %
Selected	0	1	2	0	0	0	0	0	3
	0 %	50 %	22.2 %	0 %	0 %	0 %	0 %	0 %	25 %
Total	1	2	9	0	0	0	0	0	12

Table 95. N/A

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	1	1	8	0	0	0	0	0	10
	100 %	50 %	88.9 %	0 %	0 %	0 %	0 %	0 %	83.3 %
Selected	0	1	1	0	0	0	0	0	2
	0 %	50 %	11.1 %	0 %	0 %	0 %	0 %	0 %	16.7 %
Total	1	2	9	0	0	0	0	0	12

Table 96. Of the items your company was denied, what was the denial reason? (Please check all that apply) [Commercial/Professional liability insurance?] [Insufficient Documentation]

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	0	1	10	0	0	0	0	0	11
	0 %	100 %	100 %	0 %	0 %	0 %	0 %	0 %	91.7 %
Selected	0	0	0	0	1	0	0	0	1
	0 %	0 %	0 %	0 %	100 %	0 %	0 %	0 %	8.3 %
Total	0	1	10	0	1	0	0	0	12

Table 97. Insufficient Business History

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	0	1	8	0	0	0	0	0	9
	0 %	100 %	80 %	0 %	0 %	0 %	0 %	0 %	75 %
Selected	0	0	2	0	1	0	0	0	3
	0 %	0 %	20 %	0 %	100 %	0 %	0 %	0 %	25 %
Total	0	1	10	0	1	0	0	0	12

Table 98. Confusion about Process

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	0	1	9	0	0	0	0	0	10
	0 %	100 %	90 %	0 %	0 %	0 %	0 %	0 %	83.3 %
Selected	0	0	1	0	1	0	0	0	2
	0 %	0 %	10 %	0 %	100 %	0 %	0 %	0 %	16.7 %
Total	0	1	10	0	1	0	0	0	12

Table 99. Credit History

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	0	1	9	0	0	0	0	0	10
	0 %	100 %	90 %	0 %	0 %	0 %	0 %	0 %	83.3 %
Selected	0	0	1	0	1	0	0	0	2
	0 %	0 %	10 %	0 %	100 %	0 %	0 %	0 %	16.7 %
Total	0	1	10	0	1	0	0	0	12

Table 100. Don't Know

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	0	0	9	0	0	0	0	0	9
	0 %	0 %	90 %	0 %	0 %	0 %	0 %	0 %	75 %
Selected	0	1	1	0	1	0	0	0	3
	0 %	100 %	10 %	0 %	100 %	0 %	0 %	0 %	25 %
Total	0	1	10	0	1	0	0	0	12

Table 101. N/A

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	0	1	5	0	1	0	0	0	7
	0 %	100 %	50 %	0 %	100 %	0 %	0 %	0 %	58.3 %
Selected	0	0	5	0	0	0	0	0	5
	0 %	0 %	50 %	0 %	0 %	0 %	0 %	0 %	41.7 %
Total	0	1	10	0	1	0	0	0	12

Table 102. Of the items your company was denied, what was the denial reason? (Please check all that apply) [Paycheck Protection Program Loan] [Insufficient Documentation]

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	2	5	16	0	1	1	0	0	25
	100 %	100 %	100 %	0 %	100 %	100 %	0 %	0 %	100 %
Selected	0	0	0	0	0	0	0	0	0
	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
Total	2	5	16	0	1	1	0	0	25

Table 103. Insufficient Business History

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	2	5	15	0	0	1	0	0	23
	100 %	100 %	93.8 %	0 %	0 %	100 %	0 %	0 %	92 %
Selected	0	0	1	0	1	0	0	0	2
	0 %	0 %	6.2 %	0 %	100 %	0 %	0 %	0 %	8 %
Total	2	5	16	0	1	1	0	0	25

Table 104. Confusion about Process

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	2	5	14	0	1	1	0	0	23
	100 %	100 %	87.5 %	0 %	100 %	100 %	0 %	0 %	92 %
Selected	0	0	2	0	0	0	0	0	2
	0 %	0 %	12.5 %	0 %	0 %	0 %	0 %	0 %	8 %
Total	2	5	16	0	1	1	0	0	25

Table 105. Credit History

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	2	5	13	0	1	0	0	0	21
	100 %	100 %	81.2 %	0 %	100 %	0 %	0 %	0 %	84 %
Selected	0	0	3	0	0	1	0	0	4
	0 %	0 %	18.8 %	0 %	0 %	100 %	0 %	0 %	16 %
Total	2	5	16	0	1	1	0	0	25

Table 106. Don't Know

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	2	3	14	0	0	1	0	0	20
	100 %	60 %	87.5 %	0 %	0 %	100 %	0 %	0 %	80 %
Selected	0	2	2	0	1	0	0	0	5
	0 %	40 %	12.5 %	0 %	100 %	0 %	0 %	0 %	20 %
Total	2	5	16	0	1	1	0	0	25

Table 107. N/A

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Not Selected	0	2	7	0	1	1	0	0	11
	0 %	40 %	43.8 %	0 %	100 %	100 %	0 %	0 %	44 %
Selected	2	3	9	0	0	0	0	0	14
	100 %	60 %	56.2 %	0 %	0 %	0 %	0 %	0 %	56 %
Total	2	5	16	0	1	1	0	0	25

Table 108. Do you feel as though you experienced discriminatory behavior from the private sector (i.e., non-governmental entities) from January 1, 2016, through December 31, 2020?

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Yes	7	6	17	2	3	1	0	0	36
	5.6 %	9.2 %	23.3 %	40 %	50 %	50 %	0 %	0 %	12.5 %
No	109	49	33	1	3	1	1	5	202
	87.2 %	75.4 %	45.2 %	20 %	50 %	50 %	33.3 %	62.5 %	70.4 %
Don't Know	9	10	23	2	0	0	2	3	49
	7.2 %	15.4 %	31.5 %	40 %	0 %	0 %	66.7 %	37.5 %	17.1 %
Total	125	65	73	5	6	2	3	8	287

Table 109. From January 1, 2016, through December 31, 2020, how often has your company experienced any racial, gender, or ethnicity discriminatory behavior from City of Cincinnati?

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Never	106	51	39	2	3	1	2	4	208
	84.8 %	78.5 %	53.4 %	40 %	50 %	50 %	66.7 %	50 %	72.5 %
Seldom	1	1	3	1	1	0	0	0	7
	0.8 %	1.5 %	4.1 %	20 %	16.7 %	0 %	0 %	0 %	2.4 %
Often	2	2	4	1	1	1	0	0	11
	1.6 %	3.1 %	5.5 %	20 %	16.7 %	50 %	0 %	0 %	3.8 %
Very Often	3	1	3	0	0	0	0	0	7
	2.4 %	1.5 %	4.1 %	0 %	0 %	0 %	0 %	0 %	2.4 %
Don't Know	13	10	24	1	1	0	1	4	54
	10.4 %	15.4 %	32.9 %	20 %	16.7 %	0 %	33.3 %	50 %	18.8 %
Total	125	65	73	5	6	2	3	8	287

Table 110. Do you believe there is an informal network of prime and subcontractors doing business with City of Cincinnati that monopolizes the public contracting process?

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Yes	43	35	44	4	2	1	2	3	134
	34.4 %	53.8 %	60.3 %	80 %	33.3 %	50 %	66.7 %	37.5 %	46.7 %
No	82	30	29	1	4	1	1	5	153
	65.6 %	46.2 %	39.7 %	20 %	66.7 %	50 %	33.3 %	62.5 %	53.3 %
Total	125	65	73	5	6	2	3	8	287

Table 111. Please tell us if you strongly agree, agree, neither agree nor disagree, disagree or strongly disagree with each of the following statements: [My company's exclusion from this informal network has prevented us from winning contracts with City of Cincinnati.]

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Strongly agree	9	5	10	1	1	1	0	0	27
	21.4 %	15.2 %	23.8 %	25 %	50 %	100 %	0 %	0 %	20.9 %
Agree	15	8	11	1	1	0	0	2	38
	35.7 %	24.2 %	26.2 %	25 %	50 %	0 %	0 %	66.7 %	29.5 %
Neither agree nor disagree	17	18	18	2	0	0	2	1	58
	40.5 %	54.5 %	42.9 %	50 %	0 %	0 %	100 %	33.3 %	45 %
Disagree	1	1	2	0	0	0	0	0	4
	2.4 %	3 %	4.8 %	0 %	0 %	0 %	0 %	0 %	3.1 %
Strongly disagree	0	1	1	0	0	0	0	0	2
	0 %	3 %	2.4 %	0 %	0 %	0 %	0 %	0 %	1.6 %
Total	42	33	42	4	2	1	2	3	129

Table 112. Double standards in expectations for qualifications and work performance make it more difficult for certified minority, woman, disadvantaged or small businesses to win bids or contracts.

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Strongly agree	6	7	16	1	1	0	2	0	33
	4.9 %	11.1 %	22.5 %	20 %	16.7 %	0 %	66.7 %	0 %	11.8 %
Agree	7	14	23	0	3	1	0	0	48
	5.7 %	22.2 %	32.4 %	0 %	50 %	50 %	0 %	0 %	17.1 %
Neither agree nor disagree	74	32	30	4	1	1	1	7	150
	60.7 %	50.8 %	42.3 %	80 %	16.7 %	50 %	33.3 %	87.5 %	53.6 %
Disagree	15	10	2	0	0	0	0	0	27
	12.3 %	15.9 %	2.8 %	0 %	0 %	0 %	0 %	0 %	9.6 %
Strongly disagree	20	0	0	0	1	0	0	1	22
	16.4 %	0 %	0 %	0 %	16.7 %	0 %	0 %	12.5 %	7.9 %
Total	122	63	71	5	6	2	3	8	280

Table 113. City of Cincinnati is generally accommodating to the language needs of its vendor community.

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Strongly agree	5	3	4	0	0	0	0	0	12
	4.1 %	4.8 %	5.6 %	0 %	0 %	0 %	0 %	0 %	4.3 %
Agree	31	13	13	0	1	0	1	2	61
	25.4 %	20.6 %	18.1 %	0 %	16.7 %	0 %	33.3 %	25 %	21.7 %
Neither agree nor disagree	81	42	50	4	4	2	2	6	191
	66.4 %	66.7 %	69.4 %	80 %	66.7 %	100 %	66.7 %	75 %	68 %
Disagree	2	3	5	0	0	0	0	0	10
	1.6 %	4.8 %	6.9 %	0 %	0 %	0 %	0 %	0 %	3.6 %
Strongly disagree	3	2	0	1	1	0	0	0	7
	2.5 %	3.2 %	0 %	20 %	16.7 %	0 %	0 %	0 %	2.5 %
Total	122	63	72	5	6	2	3	8	281

Table 114. Sometimes, a prime contractor will contact a Minority, Woman, Disadvantaged or Small business to ask for subcontracting quotes but once a quote is given, the prime contractor is not heard from again.

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Strongly agree	3	9	17	1	1	1	1	0	33
	2.5 %	14.3 %	23.6 %	20 %	16.7 %	50 %	33.3 %	0 %	11.7 %
Agree	19	17	18	1	1	1	1	1	59
	15.6 %	27 %	25 %	20 %	16.7 %	50 %	33.3 %	12.5 %	21 %
Neither agree nor disagree	81	36	35	2	3	0	1	6	164
	66.4 %	57.1 %	48.6 %	40 %	50 %	0 %	33.3 %	75 %	58.4 %
Disagree	14	1	1	1	0	0	0	1	18
	11.5 %	1.6 %	1.4 %	20 %	0 %	0 %	0 %	12.5 %	6.4 %
Strongly disagree	5	0	1	0	1	0	0	0	7
	4.1 %	0 %	1.4 %	0 %	16.7 %	0 %	0 %	0 %	2.5 %
Total	122	63	72	5	6	2	3	8	281

Table 115. Sometimes, a prime contractor will include a Minority, Woman, Disadvantaged or Small subcontractor on a bid to meet participation goals, then drop the company as a subcontractor after winning the award.

	<i>Owners' Minority Status</i>								
Responses	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	<i>Total</i>
Strongly agree	4	4	9	1	1	1	0	0	20
	3.3 %	6.3 %	12.5 %	20 %	16.7 %	50 %	0 %	0 %	7.1 %
Agree	12	16	16	1	3	1	1	0	50
	9.8 %	25.4 %	22.2 %	20 %	50 %	50 %	33.3 %	0 %	17.8 %
Neither agree nor disagree	80	41	44	2	1	0	2	5	175
	65.6 %	65.1 %	61.1 %	40 %	16.7 %	0 %	66.7 %	62.5 %	62.3 %
Disagree	17	2	2	1	0	0	0	1	23
	13.9 %	3.2 %	2.8 %	20 %	0 %	0 %	0 %	12.5 %	8.2 %
Strongly disagree	9	0	1	0	1	0	0	2	13
	7.4 %	0 %	1.4 %	0 %	16.7 %	0 %	0 %	25 %	4.6 %
Total	122	63	72	5	6	2	3	8	281

Table 116. I believe that some non-MWBE prime contractors only utilize MWBE companies when there are MWBE and certified disadvantage and small businesses goals set for the contract.

Responses	<i>Owners' Minority Status</i>								<i>Total</i>
	Non-Minority	Woman	Black	Hispanic	Asian	Bi-racial	Multi-Racial	Publicly Traded Companies	
Strongly agree	8	14	26	1	2	0	1	0	52
	6.5 %	22.2 %	36.1 %	20 %	33.3 %	0 %	33.3 %	0 %	18.4 %
Agree	22	19	21	1	2	2	0	2	69
	17.9 %	30.2 %	29.2 %	20 %	33.3 %	100 %	0 %	25 %	24.5 %
Neither agree nor disagree	83	29	24	3	1	0	2	4	146
	67.5 %	46 %	33.3 %	60 %	16.7 %	0 %	66.7 %	50 %	51.8 %
Disagree	5	1	0	0	0	0	0	1	7
	4.1 %	1.6 %	0 %	0 %	0 %	0 %	0 %	12.5 %	2.5 %
Strongly disagree	5	0	1	0	1	0	0	1	8
	4.1 %	0 %	1.4 %	0 %	16.7 %	0 %	0 %	12.5 %	2.8 %
Total	123	63	72	5	6	2	3	8	282

APPENDIX O

**City of Cincinnati 2022 Disparity Study
Detailed Regression Analysis**

APPENDIX O: DETAILED REGRESSION ANALYSIS

The tables in this Appendix O (Tables 1 through 15) reports additional regression results on marketplace disparities controlling for a variety of capacity factors in the City of Cincinnati Market area.

The results of the GSPC disparity analysis provide a framework to rationalize observed disparities in public contracting outcomes/success with the City of Cincinnati between Small, Minority, Women, and Disadvantaged Business Enterprises (“SMWDBEs”) and non-SMWDBEs in the City of Cincinnati Market Area. Our regression analysis enables a determination of whether any observed disparities in public contracting outcomes between SMWDBEs and non-SMWDBEs are not explained by differential capacities for public contracting success with the City of Cincinnati. All 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 the City of Cincinnati, registration status, and firm financial standing. This inclusion of these control covariates in our regression specifications permit an assessment of public contracting success/failure conditional on SMWDBE and non-SMWDBE public contracting capacity. The existence of public contracting success disparities between SMWDBEs and non-SMWDBEs—particularly when disaggregating by the racial/ethnic/gender status of owners—even after controlling for capacity suggests that relative to non-SMWDBEs, SMWDBEs face barriers independent of their capacity—or their ability—in securing public contracts and subcontracts with the City of Cincinnati.

Perhaps the most indicative of racial/ethnic disparities in public contracting outcomes in the City of Cincinnati Market Area is that our results reveal that the likelihood of SMWDBEs that are classified as Women, and those owned by Black Americans and Women are more likely to have “never” been a prime contractor or subcontractor relative to non-SMWDBEs over the time period under consideration in our analysis. Firms classified as Disadvantaged and Other Race-owned also received, relative to non-SMWDBEs, fewer prime contracts. This suggests that these type of SMWDBEs face barriers in securing prime contracts and subcontracts from the City of Cincinnati. We also find that in the City of Cincinnati Market area, relative to non-SMWDBEs, the prime bid submission rate for SMWDBEs is no different. This suggests that for these types of SMWDBEs, while interventions to increase prime bid submissions by SMWDBE rate could potentially mitigate public contracting disparities between them and non-SMWDBEs, differential prime bid submission rates may not have any power to explain any prime contracting disparities between SMWDBEs and non-SMWDBEs. Lastly, we find evidence of perceived private sector discrimination and informal contracting network exclusion being higher for some SMWDBEs. As such, our results are also consistent with observed disparities between SMWDBEs and non-SMWDBEs in securing prime contracts and subcontracts with the City of Cincinnati being driven, at least in part, by discrimination and public contracting network exclusion against SMWDBEs that undermines their ability to secure prime contracts and subcontracts with the City of Cincinnati.

A. Statistical and Econometric Framework

Methodologically, the GSPC statistical and econometric analysis of possible SMWDBE public contracting disparities with the City of Cincinnati utilizes a Categorical Regression Model (CRM) framework.¹ As the

¹ See: Richard D. McKelvey and William Zavoina. 1975. “A Statistical Model for the Analysis of Ordinal Level Dependent

covariates measuring public contracting activity/outcomes and other respondent characteristics in Table 1 are categorical responses to questionnaire items (e.g. public contracting bid ranges, yes, no), a CRM views the categories as latent variables with likelihood thresholds that are conditioned on other covariates. In the case where there are more than two categories and the succession of categories have a natural ranking, a CRM permits a determination as to how particular covariates condition the likelihood/probability of being in the highest valued category relative to the lower-valued categories. In the case of just two categorical but not naturally ordered categories, the CRM reduces to a Binary Regression Model (BRM).²

For all the CRM/BRM parameter estimates below, we report them as “odds ratios”, which measure the ratio of the probability of success and the probability of failure relative to the omitted group in all our specifications—nonminority owned firms.³ 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. We determine statistical significance on the basis of the estimated coefficient’s probability value—or P-value. The P-value is the probability of obtaining an estimate of the coefficient by chance alone, assuming that the null hypothesis of the variable having a zero effect is true. As a convention, GSPC rejects the null hypothesis of no effect, and concludes the estimated coefficient is statistically significant as long as P-value $\leq .05$, which we highlight in bold for all parameter estimates.

We report/discuss 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 is 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 and exposit on, the instances in which the parameter estimates suggest that Small, Minority, and Women owned firms fare worse relative to non-SMWDBEs for the outcomes under consideration.

Variables,” *Journal of Mathematical Sociology*, 4: pp. 103 - 120.

² 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.

³ 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.

Our regression strategy also reports on two different specifications of the outcome of interest. The first one includes a broad classification of non-Caucasian firms as measured by whether or not they are certified and/or deemed as SMWDBEs. 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-Caucasian minorities and Women, the second specification disaggregates the broad categories by consideration categorization by specific racial/ethnic group and gender (e.g. Asian Americans, Black 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 SMWDBE and race/ethnicity/gender characteristics of a firm is a possible driver or not of public contracting and other relevant disparities—relative to non-SMWDBEs—in the City of Cincinnati Market Area. In particular, we do not necessarily exposit upon the statistical insignificance of SMWDBE 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 SMWDBEs, or on average, the outcome of interest is a driver of public contracting disparities in the City of Cincinnati Market Area, and can be at least partially explained by SMWDBE status.

As nonresponse probabilities in the GSPC survey are unknown, we estimate all parameters from our CRM/BRM 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.⁴ 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, CRM/BRM parameter estimates with bootstrapped standard errors effects can mitigate/eliminate the bias caused by a sample that may not be fully representative of the population of interest.⁵

B. GSPC Survey of Business Owners Data

Our City of Cincinnati disparity analysis is based on survey data compiled by GSPC, and constitutes a sample of firms from the vendor data provided by the City of Cincinnati and from other local and state governmental lists, as well as other business owners not included on those lists that elected to take the survey. The GSPC survey was a questionnaire that captured data on firm and individual owner characteristics, and relevant outcomes in the City of Cincinnati Market Area during the 2015 – 2021 time period. The questionnaire was sent to certified firms, prequalified firms, awardees, and subcontractors. Table 1 reports, for the 208 survey responses captured, a statistical summary of the covariates that are relevant to the regression analysis.

⁴ 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

⁵ 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

**Table 1
Covariate Summary**

Covariate	Description	Mean	Standard Deviation	Number of Observations
Firm entered market within past five years	<i>Binary Variable: 1 = yes</i>	.172	.378	215
Number of times denied a commercial bank loan	<i>Ordinal Variable: 1 = 0;2 = 1 - 10;3 = 11 - 25 4 = 26 - 50;5 = 51 - 100 6 = Over 100</i>	.981	.572	215
Number of prime bids submitted on City of Cincinnati projects	<i>Ordinal Variable: 1 = 0;2 = 1 - 10;3 = 11 - 25 4 = 26 - 50;5 = 51 - 100 6 = Over 100</i>	1.54	1.10	215
Number of City of Cincinnati prime contracts awarded between 1/1/16 - 12/31/20	<i>Ordinal Variable: 1 = 0;2 = 1 - 10;3 = 11 - 25 4 = 26 - 50;5 = 51 - 100 6 = Over 100</i>	1.27	.816	215
Number of City of Cincinnati subcontracts awarded between 1/1/16 - 12/31/20	<i>Ordinal Variable: 1 = 0;2 = 1 - 10;3 = 11 - 25 4 = 26 - 50;5 = 51 - 100 6 = Over 100</i>	1.35	.856	215
Did not serve as a contractor or subcontractor on City of Cincinnati projects between 1/1/16 - 12/31/20	<i>Binary Variable:1 = Yes</i>	.195	.397	215
Firm has experienced discrimination at City of Cincinnati	<i>Binary Variable:1 = Yes</i>	.702	.458	215
Firm owner believes informal networks enables business with City of Cincinnati	<i>Binary Variable:1 = Yes</i>	.516	.501	215
Owner has more than 20 years of experience	<i>Binary Variable:1 = Yes</i>	.721	.449	215
Firm has more than 10 employees	<i>Binary Variable:1 = Yes</i>	.535	.499	215
Firm owner has a baccalaureate/post-graduate degree	<i>Binary Variable:1 = Yes</i>	.447	.498	215
Firm gross revenue greater than \$1,500,000	<i>Binary Variable:1 = Yes</i>	.237	.426	215
Firm bonding limit greater than \$1,500,000	<i>Binary Variable:1 = Yes</i>	.395	.490	215
Financing is a Barrier to Submitting Bids and Securing	<i>Binary Variable:1 = Yes</i>	.869	.337	215
Contracts From City of Cincinnati Firm is in the construction sector	<i>Binary Variable: 1 = Yes</i>	.228	.420	215
Firm is registered to do business with City of Cincinnati	<i>Binary Variable:1 = Yes</i>	.647	.479	215
Firm is willing and able to do business with City of Cincinnati as a prime contractor	<i>Binary Variable:1 = Yes</i>	.865	.342	215
Firm is willing and able to do business with City of Cincinnati as a subcontractor	<i>Binary Variable:1 = Yes</i>	.902	.298	215
Firm is a certified Minority Business Enterprise	<i>Binary Variable:1 = Yes</i>	.191	.394	215
Firm is a certified Woman business enterprise	<i>Binary Variable:1 = Yes</i>	.242	.429	215
Firm is a certified Small Business Enterprise	<i>Binary Variable:1 = Yes</i>	.312	.464	215
Firm is a certified Disadvantaged Business Enterprise	<i>Binary Variable:1 = Yes</i>	.112	.316	215
Majority Firm Owner is Black American	<i>Binary Variable:1 = Yes</i>	.609	.489	215
Majority Firm Owner is Hispanic American	<i>Binary Variable:1 = Yes</i>	.014	.118	215
Majority Firm Owner is Asian/Pacific Islander	<i>Binary Variable: 1 = Yes</i>	.274	.447	215
Majority Firm Owner is Native American	<i>Binary Variable:1 = Yes</i>	.027	.165	215
Majority Firm Owner is Other Race	<i>Binary Variable:1 = Yes</i>	.019	.135	215
Majority Firm Owner is a Woman	<i>Binary Variable:1 = Yes</i>	.437	.497	215

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C. SMWDBE Status and Firm Entry in the City of Cincinnati Market Area

To determine if SMWDBE status is a barrier to the formation of new businesses in the City of Cincinnati Market Area, Tables 2 - 3 report, for each of the distinct SMWDBEs and owner self-reported race/ethnicity in the GSPC sample, the estimated parameters of a Logit BRM with a binary variable for a firm establishing itself 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, 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.⁶

The parameter estimates with odds ratio greater than unity in Table 2 suggest that relative to Caucasian American owned firms, certified Minority-owned firms in the City of Cincinnati Market Area are more likely to be new firms. As the excluded group is non-SMWDBEs, to the extent that market experience is an important determinant of, and correlated with, success in bidding and securing public contracts, this suggests that for certified Minority firms, relative inexperience in the market may at least partially explain disparities in public contracting between them and non-SMWDBEs in the City of Cincinnati Market Area. This would hold true if tenure in the market also implies similar knowledge/experience about bidding and securing public contracts.

When disaggregated by race/gender/ethnicity, the parameter estimates in Table 3 also suggest that relative to Caucasian American owned firms, firms owned by Hispanics are more likely to be new firms. This further suggests that any public contracting disparities between non-SMWDBEs and SMWDBEs can at least in part be explained by differential rates of market experience.

The parameter estimates with odds ratio less than unity in Tables 2 - 3 suggest that relative to Caucasian American owned firms, certified Disadvantaged and firms owned by Women in the City of Cincinnati Market Area are less likely to be new firms. This suggests that any public contracting disparities between non-SMWDBEs and firms classified as Disadvantaged and owned by Women cannot be explained, at least

⁶ 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.

in part, by less market experience relative to non-SMWDBEs.

Table 2
 Logit Parameter Estimates (Odds Ratio):
 SMWDBE Status and Firm Entry in the City of Cincinnati 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)	0.1163	0.0000
Firm has more than 10 employees: (Binary)	0.1841	0.0718
Firm owner has a baccalaureate degree: (Binary)	0.9732	0.9589
Firm gross revenue greater than 1.5 million: (Binary)	0.0000	0.9886
Firm Bonding limit greater than 1.5 million: (Binary)	0.3605	0.0403
Financing is a barrier for securing City of Cincinnati projects: (Binary)	1.8088	0.3265
Firm is in the construction sector: (Binary)	0.5927	0.4151
Firm is registered to do business with City of Cincinnati: (Binary)	0.9445	0.9054
Firm is a certified Minority Business Enterprise: (Binary)	7.0706	0.0089
Firm is a certified Woman Business Enterprise: (Binary)	0.2947	0.1080
Firm is a certified Disadvantaged Business Enterprise: (Binary)	0.0941	0.0134
Firm is a certified Small Business Enterprise: (Binary)	1.2752	0.6987
Number of Observations	208	
Pseudo R ²	0.3912	

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Table 3
Logit Parameter Estimates (Odds Ratio):
Owner Racial/Ethnic Status and Firm Entry in the City of Cincinnati 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)	0.1000	0.0000
Firm has more than 10 employees: (Binary)	0.3441	0.0276
Firm owner has a baccalaureate degree: (Binary)	0.9145	0.8744
Firm gross revenue greater than 1.5 million: (Binary)	0.0000	0.9944
Firm Bonding limit greater than 1.5 million: (Binary)	0.2558	0.0157
Financing is a barrier for securing City of Cincinnati projects: (Binary)	1.8652	0.2995
Firm is in the construction sector: (Binary)	0.5168	0.2929
Firm is registered to do business with City of Cincinnati: (Binary)	0.6577	0.3942
Firm is Black American owned: (Binary)	0.7993	0.7922
Firm is Hispanic American owned: (Binary)	5.2419	0.0345
Firm is Asian American owned: (Binary)	2.6945	0.1768
Firm is Native American owned: (Binary)	4.0481	0.4283
Firm is other race-owned: (Binary)	3.3488	0.4678
Firm is Woman owned: (Binary)	0.3345	0.0429
Number of Observations	208	
Pseudo R^2	0.3821	

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D. SMWDBE Status and Number of Prime Bid Submissions In the City of Cincinnati Market Area

One reason disparities in public contracting outcomes between SMWDBEs and non-SMWDBEs could exist is that relative to non-SMWDBEs, SMWDBEs may be less interested in, and/or less likely to submit bids for public contracts. To determine if this is the case in the City of Cincinnati 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 City of Cincinnati between 2016 - 2020 as the dependent variable, for each of the distinct SMWDBEs in the GSPC sample.

The parameter estimates in Tables 4 – 5 indicate that in no instances are the estimated odds ratios statistically significant, implying that relative to non-SMWDBEs, SMWDBEs do not differ with respect to the submission of bids for prime contracts with the City of Cincinnati. This suggests that any disparities in public contracting outcomes between SMWDBEs and non-SMWDBEs in the City of Cincinnati market cannot be explained by SMWDBEs submitting fewer prime contract bids relative to non-SMWDBEs.

Table 4
Ordinal Logit Parameter Estimates (Odds Ratio):
SMWDBE Status and Number of Prime Bid Submissions
In the City of Cincinnati Market Area

	Coefficient	P-value
<i>Regressand:</i> Number of prime bids on City of Cincinnati projects: (Ordinal)		
Firm owner has more than 20 years' experience: (Binary)	0.6434	0.1623
Firm has more than 10 employees: (Binary)	1.3368	0.3581
Firm owner has a baccalaureate degree: (Binary)	0.9859	0.9593
Firm gross revenue greater than 1.5 million: (Binary)	1.3115	0.4435
Firm Bonding limit greater than 1.5 million: (Binary)	0.7037	0.0267
Financing is a barrier for securing City of Cincinnati projects: (Binary)	0.9946	0.9899
Firm is in the construction sector: (Binary)	2.2211	0.0195
Firm is registered to do business with City of Cincinnati: (Binary)	3.7915	0.0000
Firm is a willing/able prime contractor for City of Cincinnati: (Binary)	1.7265	0.2703
Firm is a willing/able subcontractor for City of Cincinnati: (Binary)	2.9898	0.0314
Firm is a certified Minority Business Enterprise: (Binary)	0.8731	0.7395
Firm is a certified Woman Business Enterprise: (Binary)	0.7980	0.5193
Firm is a certified Disadvantaged Business Enterprise: (Binary)	1.7935	0.2318
Firm is a certified Small Business Enterprise: (Binary)	0.9247	0.8239
Number of Observations	215	
Pseudo R ²	0.1012	

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Table 5
Ordinal Logit Parameter Estimates (Odds Ratio):
SMWDBE Status and Number of Prime Bid Submissions
In the City of Cincinnati Market Area

	Coefficient	P-value
<i>Regressand:</i> Number of prime bids on City of Cincinnati projects: (Ordinal)		
Firm owner has more than 20 years' experience: (Binary)	0.5310	0.0622
Firm has more than 10 employees: (Binary)	1.2568	0.4780
Firm owner has a baccalaureate degree: (Binary)	0.9061	0.7285
Firm gross revenue greater than 1.5 million: (Binary)	1.2450	0.0412
Firm Bonding limit greater than 1.5 million: (Binary)	0.7644	0.3652
Financing is a barrier for securing City of Cincinnati projects: (Binary)	0.8648	0.7478
Firm is in the construction sector: (Binary)	2.2553	0.0180
Firm is registered to do business with City of Cincinnati: (Binary)	3.8675	0.0000
Firm is a willing/able prime contractor for City of Cincinnati: (Binary)	1.7594	0.2595
Firm is a willing/able subcontractor for City of Cincinnati: (Binary)	3.3032	0.0430
Firm is Black American owned: (Binary)	1.9574	0.2902
Firm is Hispanic American owned: (Binary)	1.6078	0.6974
Firm is Asian American owned: (Binary)	1.4197	0.6019
Firm is Native American owned: (Binary)	1.4714	0.6870
Firm is other race-owned: (Binary)	1.2446	0.9157
Firm is Woman owned: (Binary)	0.6996	0.2088
Number of Observations	215	
Pseudo R ²	0.1036	

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E. SMWDBE Status and Number of Prime Contracts Awarded In the City of Cincinnati Market Area

To the extent that frequency of public contract bids reflects past experience as a prime contractor, SMWDBEs can potentially become frequent prime contract bidders by actually gaining experience as successful prime contractors. As such, the frequency of prime bids by SMWDBEs firms need not be a concern if they are actually gaining valuable experience as prime contractors that will translate into frequent contract bids and success later. To explore if this is the case in the City of Cincinnati Market Area, Tables 6 - 7 report Ordinal Logit BRM parameter estimates where the dependent variable is the number of City of Cincinnati prime contracts awarded to the firm between January 2016 and December 2020.

The estimated odds ratio less than unity with statistical significance in Table 6 suggest that relative to non-SMWDBEs, certified Disadvantaged firms received fewer City of Cincinnati prime contracts since January of 2016. When disaggregating by the race/ethnicity/gender of firm owners in Table 7, relative to non-SMWDBEs, the estimated odds ratio less than unity with statistical significance suggest that firms owned by Other Race received fewer City of Cincinnati prime contracts. 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-SMWDBEs, Disadvantages, and Other Race-owned firms can possibly be explained by past, and possibly discriminatory constraints on these type of SMWDBEs successfully winning prior prime contracts from the City of Cincinnati, which could translate into future capacity to secure prime contracts.

Table 6
Ordinal Logit Parameter Estimates (Odds Ratio):
SMWDBE Status and Number of Prime Contracts Awarded
In the City of Cincinnati Market Area

	Coefficient	P-value
<i>Regressand</i> : # of City of Cincinnati prime contracts awarded since January 2016: (Ordinal)		
Firm owner has more than 20 years' experience: (Binary)	0.9729	0.9305
Firm has more than 10 employees: (Binary)	0.5474	0.0607
Firm owner has a baccalaureate degree: (Binary)	1.3587	0.2796
Firm gross revenue greater than 1.5 million: (Binary)	2.4094	0.0163
Firm Bonding limit greater than 1.5 million: (Binary)	0.8265	0.5097
Financing is a barrier for securing City of Cincinnati projects: (Binary)	1.1031	0.8254
Firm is in the construction sector: (Binary)	1.9847	0.0478
Firm is registered to do business with City of Cincinnati: (Binary)	2.8892	0.0011
Firm is a willing/able prime contractor for City of Cincinnati: (Binary)	4.0581	0.0012
Firm is a certified Minority Business Enterprise: (Binary)	1.0678	0.8728
Firm is a certified Woman Business Enterprise: (Binary)	0.9782	0.9508
Firm is a certified Disadvantaged Business Enterprise: (Binary)	0.7896	0.0388
Firm is a certified Small Business Enterprise: (Binary)	0.8515	0.6517
Number of Observations	215	
Pseudo R ²	0.0815	

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Table 7
Ordinal Logit Parameter Estimates (Odds Ratio):
SMWDBE Status and Number of Prime Contracts Awarded
In the City of Cincinnati Market Area

	Coefficient	P-value
<i>Regressand</i> : # of City of Cincinnati prime contracts awarded since January 2016: (Ordinal)		
Firm owner has more than 20 years' experience: (Binary)	0.9909	0.9783
Firm has more than 10 employees: (Binary)	0.5818	0.1034
Firm owner has a baccalaureate degree: (Binary)	1.2408	0.4616
Firm gross revenue greater than 1.5 million: (Binary)	2.0150	0.0610
Firm Bonding limit greater than 1.5 million: (Binary)	0.8927	0.7040
Financing is a barrier for securing City of Cincinnati projects: (Binary)	1.0681	0.8883
Firm is in the construction sector: (Binary)	1.9182	0.0627
Firm is registered to do business with City of Cincinnati: (Binary)	2.7228	0.0018
Firm is a willing/able prime contractor for City of Cincinnati: (Binary)	4.1951	0.0013
Firm is Black American owned: (Binary)	2.2555	0.2098
Firm is Hispanic American owned: (Binary)	3.6205	0.3047
Firm is Asian American owned: (Binary)	1.8313	0.3699
Firm is Native American owned: (Binary)	4.3240	0.1442
Firm is other race-owned: (Binary)	0.0669	0.0451
Firm is Woman owned: (Binary)	0.7552	0.3347
Number of Observations	215	
Pseudo R ²	0.1066	

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F. SMWDBE Status and Number of Subcontracts Awarded In the City of Cincinnati 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 City of Cincinnati contracts, SMWDBEs can potentially become more frequent and successful prime contract bidders by acquiring experience as subcontractors. As such, the low-frequency of prime bid submission and lower likelihood of being a prime contractor by SMWDBEs should 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 City of Cincinnati Market Area, Tables 8 - 9 report Ordinal Logit BRM parameter estimates where the dependent variable is the number of City of Cincinnati subcontracts awarded to the firm between January 2016 and December 2020.

The estimated odds ratio that are greater than unity with statistical significance in Table 8 suggest that relative to non-SMWDBEs firms certified as Disadvantaged received more City of Cincinnati subcontracts. This suggests that any disparities between Certified Disadvantaged firms and non-SMWDBEs cannot be explained, at least in part, by any differential subcontracting experience.

When disaggregating by the race/ethnicity/gender of firm owners in Table 9, relative to non-SMWDBEs, the estimated odds ratio less than unity with statistical significance suggest that firms owned by Hispanics and Other race received fewer City of Cincinnati subcontracts. To the extent that success in public contracting is proportional to having prior subcontracts, this suggests that any contracting disparities between non-SMWDBEs and firms owned by Hispanics and Other Race can possibly be explained by past, and possibly discriminatory constraints on subcontracting, which could constrain their future capacity to secure prime contracts.

Table 8
Ordinal Logit Parameter Estimates (Odds Ratio):
SMWDBE Status and Number of Subcontracts Awarded
In the City of Cincinnati Market Area

	Coefficient	P-value
Regressand: # of City of Cincinnati subcontracts awarded since January 2016: (Ordinal)		
Firm owner has more than 20 years' experience: (Binary)	1.1548	0.6706
Firm has more than 10 employees: (Binary)	0.8602	0.6544
Firm owner has a baccalaureate degree: (Binary)	1.4148	0.0324
Firm gross revenue greater than 1.5 million: (Binary)	1.4482	0.0319
Firm Bonding limit greater than 1.5 million: (Binary)	0.8399	0.5743
Financing is a barrier for securing City of Cincinnati projects: (Binary)	1.1348	0.7891
Firm is in the construction sector: (Binary)	2.1596	0.0330
Firm is registered to do business with City of Cincinnati: (Binary)	1.2936	0.4502
Firm is a willing/able subcontractor for City of Cincinnati: (Binary)	2.6905	0.0633
Firm is a certified Minority Business Enterprise: (Binary)	0.9761	0.9554
Firm is a certified Woman Business Enterprise: (Binary)	0.7021	0.3540
Firm is a certified Disadvantaged Business Enterprise: (Binary)	4.9755	0.0019
Firm is a certified Small Business Enterprise: (Binary)	0.8434	0.6528
Number of Observations	215	
Pseudo R ²	0.0664	

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Table 9
Ordinal Logit Parameter Estimates (Odds Ratio):
Owner Racial/Ethnic Status and Number of Subcontracts Awarded
In the City of Cincinnati Market Area

	Coefficient	P-value
<i>Regressand</i> : # of City of Cincinnati subcontracts awarded since January 2016: (Ordinal)		
Firm owner has more than 20 years' experience: (Binary)	1.1041	0.7813
Firm has more than 10 employees: (Binary)	1.0150	0.9653
Firm owner has a baccalaureate degree: (Binary)	1.3339	0.0482
Firm gross revenue greater than 1.5 million: (Binary)	1.3994	0.3848
Firm Bonding limit greater than 1.5 million: (Binary)	0.8912	0.0128
Financing is a barrier for securing City of Cincinnati projects: (Binary)	1.2034	0.7036
Firm is in the construction sector: (Binary)	2.3910	0.0152
Firm is registered to do business with City of Cincinnati: (Binary)	1.5580	0.1754
Firm is a willing/able subcontractor for City of Cincinnati: (Binary)	2.4136	0.1062
Firm is Black American owned: (Binary)	2.2578	0.2192
Firm is Hispanic American owned: (Binary)	0.8819	0.0280
Firm is Asian American owned: (Binary)	2.8886	0.1349
Firm is Native American owned: (Binary)	2.4839	0.3721
Firm is other race-owned: (Binary)	0.2328	0.0134
Firm is Woman owned: (Binary)	1.1499	0.6445
Number of Observations	215	
Pseudo R ²	0.0542	

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G. SMWDBE Status and Never Serving as Contractor/Subcontractor In the City of Cincinnati Market Area

As the results in Tables 7 - 9 reflect only the effect of SMWDBE status on the number of City of Cincinnati contracts and subcontracts, it may obscure the effects of, and the distribution of, zero outcomes—never having secured a City of Cincinnati contract or subcontract. Tables 10 – 11 report Logit parameter estimates where the dependent variable is whether the firm “never” served since January 2016 as a prime contractor or subcontractor for the City of Cincinnati. The estimated odds ratios that are positive with statistical significance in Table 10 suggest that relative to non-SMWDBEs, certified Women-owned firms, are more likely to have never received a City of Cincinnati prime contract or subcontract. Disaggregating by race/ethnicity/gender, the estimated odds ratios that are positive with statistical significance in Table 11 suggest that firms owned by Black Americans and Women are more likely to have “never” been a prime contractor or subcontractor with the City of Cincinnati. 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 City of Cincinnati public contracting disparities between non-SMWDBEs, and firms certified as Minority, or owned by Black Americans and Asian Americans, can possibly be explained by their relative disadvantage in having secured prior prime contracts or subcontracts from the City of Cincinnati.

Table 10
 Logit Parameter Estimates (Odds Ratio):
 SMWDBE Status and Never Serving as Contractor/Subcontractor
 In the City of Cincinnati Market Area

	Coefficient	P-value
<i>Regressand:</i> Served as neither contractor/subcontractor on contract since January 2016: (Binary)		
Firm owner has more than 20 years' experience: (Binary)	0.6057	0.2504
Firm has more than 10 employees: (Binary)	0.7219	0.4762
Firm owner has a baccalaureate degree: (Binary)	0.8561	0.0426
Firm gross revenue greater than 1.5 million: (Binary)	1.4336	0.5137
Firm Bonding limit greater than 1.5 million: (Binary)	1.2756	0.5569
Financing is a barrier for securing City of Cincinnati projects: (Binary)	2.8126	0.1539
Firm is in the construction sector: (Binary)	0.1683	0.0242
Firm is registered to do business with City of Cincinnati: (Binary)	0.2701	0.0021
Firm is a willing/able prime contractor for City of Cincinnati: (Binary)	0.2481	0.0083
Firm is a certified Minority Business Enterprise: (Binary)	0.8225	0.7676
Firm is a certified Woman Business Enterprise: (Binary)	1.8031	0.0418
Firm is a certified Disadvantaged Business Enterprise: (Binary)	0.3933	0.4201
Firm is a certified Small Business Enterprise: (Binary)	0.4552	0.1704
Number of Observations	215	
Pseudo R ²	0.2022	

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Table 11
 Logit Parameter Estimates (Odds Ratio):
 SMWDBE Status and Never Serving as Contractor/Subcontractor
 In the City of Cincinnati Market Area

	Coefficient	P-value
<i>Regressand</i> : Served as neither contractor/subcontractor on contract since January 2016: (Binary)		
Firm owner has more than 20 years' experience: (Binary)	0.5728	0.2384
Firm has more than 10 employees: (Binary)	0.7653	0.5878
Firm owner has a baccalaureate degree: (Binary)	0.7142	0.4163
Firm gross revenue greater than 1.5 million: (Binary)	1.3220	0.6259
Firm Bonding limit greater than 1.5 million: (Binary)	1.5301	0.3068
Financing is a barrier for securing City of Cincinnati projects: (Binary)	2.3402	0.2659
Firm is in the construction sector: (Binary)	0.1592	0.0243
Firm is registered to do business with City of Cincinnati: (Binary)	0.2266	0.0004
Firm is a willing/able prime contractor for City of Cincinnati: (Binary)	0.2260	0.0060
Firm is Black American owned: (Binary)	1.7712	0.0462
Firm is Hispanic American owned: (Binary)	0.8317	0.9943
Firm is Asian American owned: (Binary)	6.9253	0.1343
Firm is other race-owned: (Binary)	0.6341	0.9941
Firm is Woman owned: (Binary)	1.0414	0.0229
Number of Observations	215	
Pseudo R ²	0.2276	

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H. SMWDBE Status and Perceived Discrimination at the City of Cincinnati

Disparate contracting and subcontracting outcomes between SMWDBEs and non-SMWDBEs could reflect, at least in part, the effects of discrimination against SMWDBES at the City of Cincinnati.⁷ In Tables 12 – 13, we report Logit parameter estimates of the effects of SMWDBE status on having experienced discrimination—in particular the perception of having experienced discrimination at the City of Cincinnati between January 2016 and December 2020.

⁷ 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 City of Cincinnati, the absence of odds ratio estimates in Table 12 that are positive with statistical significance suggest that relative to non-SMWDBEs, certified Disadvantaged firms are more likely to experience discrimination at the City of Cincinnati. When disaggregated by the race/ethnicity/gender of firm owners, the positive odds ratio estimates with statistical significance in Table 13 suggest that relative to non-SMWDBEs, firms owned by Black Americans are relatively more likely to experience discrimination at the City of Cincinnati. In general, the parameter estimates suggest that, at least for SMWDBEs certified as Disadvantaged, and owned by Black Americans, City of Cincinnati public contracting disparities between them and non-SMWDBEs may at least in part be explained by perceived discrimination, which could possibly disincentivize prime bid submissions by SMWDBEs, that lower their chances at successfully winning prime contracts with the City of Cincinnati.

Table 12
Logit Parameter Estimates (Odds Ratio):
SMWDBE Status and Perceived Discrimination at City of Cincinnati

	Coefficient	P-value
<i>Regressand:</i> Experienced perceived discrimination at City of Cincinnati: (Binary)		
Firm owner has more than 20 years' experience: (Binary)	2.3615	0.0162
Firm has more than 10 employees: (Binary)	1.0668	0.8602
Firm owner has a baccalaureate degree: (Binary)	1.9446	0.0503
Firm gross revenue greater than 1.5 million: (Binary)	1.4071	0.4460
Firm Bonding limit greater than 1.5 million: (Binary)	0.8874	0.7230
Financing is a barrier for securing City of Cincinnati projects: (Binary)	1.2735	0.6289
Firm is in the construction sector: (Binary)	0.7396	0.4536
Firm is registered to do business with City of Cincinnati: (Binary)	0.5805	0.0434
Firm is a willing/able prime contractor for City of Cincinnati: (Binary)	1.2528	0.6239
Firm is a certified Minority Business Enterprise: (Binary)	0.4030	0.0505
Firm is a certified Woman Business Enterprise: (Binary)	1.2600	0.5849
Firm is a certified Disadvantaged Business Enterprise: (Binary)	1.9890	0.0472
Firm is a certified Small Business Enterprise: (Binary)	0.8864	0.7734
Observations	215	
Pseudo R ²	0.0777	

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Table 13
 Logit Parameter Estimates (Odds Ratio):
 SMWDBE Status and Perceived Discrimination at City of Cincinnati

	Coefficient	P-value
<i>Regressand:</i> Experienced perceived discrimination at City of Cincinnati: (Binary)		
Firm owner has more than 20 years' experience: (Binary)	1.6558	0.1849
Firm has more than 10 employees: (Binary)	0.9986	0.9971
Firm owner has a baccalaureate degree: (Binary)	1.5657	0.2052
Firm gross revenue greater than 1.5 million: (Binary)	1.1255	0.7991
Firm Bonding limit greater than 1.5 million: (Binary)	0.8945	0.0428
Financing is a barrier for securing City of Cincinnati projects: (Binary)	0.8396	0.7369
Firm is in the construction sector: (Binary)	0.7391	0.4657
Firm is registered to do business with City of Cincinnati: (Binary)	0.5672	0.0282
Firm is a willing/able prime contractor for City of Cincinnati: (Binary)	1.4706	0.4139
Firm is Black American owned: (Binary)	2.4982	0.0363
Firm is Hispanic American owned: (Binary)	0.2761	0.3667
Firm is Asian American owned: (Binary)	0.6734	0.5109
Firm is other race-owned: (Binary)	0.6132	0.6726
Firm is Woman owned: (Binary)	0.8661	0.6807
Number of Observations	215	
Pseudo R ²	0.1104	

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I. SMWDBE Status and Informal Contracting Networks In the Fredrick Market Area

Similar to discrimination at the City of Cincinnati, the existence of informal public contracting networks that confer advantages to insiders in securing public contracts and subcontracts, and exclude SMWDBEs, could possibly have an adverse effect on SMWDBEs ability to secure public contracts and subcontracts with the City of Cincinnati.⁸ To explore the role of such informal networks, Tables 14 - 15 report Logit parameter estimates where the dependent variable is if the firm owner agrees that informal networks enable success in public contracting with the City of Cincinnati.

⁸ 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.

The odd ratio estimates in Table 14 that are positive with statistical significance suggest that relative to non-SMWDBEs, firms certified as Minority and Small are more likely to perceive that informal networks enable contracting success with the City of Cincinnati. When disaggregated by the race/ethnicity/gender of firm owners, the positive odds ratio estimates with statistical significance in Table 17 suggest that relative to non-SMWDBEs, firms owned by Black Americans and Women are more likely to perceive that informal networks enable contracting success with the City of Cincinnati. This suggests that, at least for certified Minority and Small firms, and those owned by Black Americans and Women, City of Cincinnati contracting disparities between them and non-SMWDBEs can potentially be explained by their exclusion from the City of Cincinnati public contracting networks that reduces their ability to secure prime contracts and subcontracts.

Table 14
 Logit Parameter Estimates (Odds Ratio):
 SMWDBE Status and Informal Contracting Networks
 In the City of Cincinnati Market Area

	Coefficient	P-value
<i>Regressand:</i> Yes, there is an informal network that enables business with City of Cincinnati: (Binary)		
Firm owner has more than 20 years' experience: (Binary)	0.9042	0.7660
Firm has more than 10 employees: (Binary)	0.5227	0.0235
Firm owner has a baccalaureate degree: (Binary)	0.8031	0.4675
Firm gross revenue greater than 1.5 million: (Binary)	1.1518	0.7086
Firm Bonding limit greater than 1.5 million: (Binary)	1.1892	0.5715
Financing is a barrier for securing City of Cincinnati projects: (Binary)	0.3754	0.0294
Firm is in the construction sector: (Binary)	0.7983	0.5449
Firm is registered to do business with City of Cincinnati: (Binary)	0.8231	0.5517
Firm is a willing/able prime contractor for City of Cincinnati: (Binary)	1.0848	0.8556
Firm is a certified Minority Business Enterprise: (Binary)	1.6943	0.0429
Firm is a certified Woman Business Enterprise: (Binary)	0.6280	0.2431
Firm is a certified Disadvantaged Business Enterprise: (Binary)	0.9434	0.9178
Firm is a certified Small Business Enterprise: (Binary)	1.7746	0.0328
Number of Observations	215	
Pseudo R ²	0.0720	

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Table 15
 Logit Parameter Estimates (Odds Ratio):
 SMWDBE Status and Informal Contracting Networks
 In the City of Cincinnati Market Area

	Coefficient	P-value
<i>Regressand:</i> Yes, there is an informal network that enables business with City of Cincinnati: (Binary)		
Firm owner has more than 20 years' experience: (Binary)	0.9326	0.8431
Firm has more than 10 employees: (Binary)	0.5344	0.0664
Firm owner has a baccalaureate degree: (Binary)	0.8304	0.0426
Firm gross revenue greater than 1.5 million: (Binary)	1.1077	0.7887
Firm Bonding limit greater than 1.5 million: (Binary)	1.2446	0.4770
Financing is a barrier for securing City of Cincinnati projects: (Binary)	0.3564	0.0340
Firm is in the construction sector: (Binary)	0.8366	0.6301
Firm is registered to do business with City of Cincinnati: (Binary)	0.8941	0.7233
Firm is a willing/able prime contractor for City of Cincinnati: (Binary)	1.1126	0.8114
Firm is Black American owned: (Binary)	1.1470	0.0230
Firm is Hispanic American owned: (Binary)	1.4894	0.7842
Firm is Asian American owned: (Binary)	1.3405	0.6697
Firm is Native American owned: (Binary)	0.6256	0.6652
Firm is other race-owned: (Binary)	0.5571	0.6622
Firm is Woman owned: (Binary)	1.2156	0.0431
Number of Observations	215	
Pseudo R^2	0.0606	

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APPENDIX P

**City of Cincinnati 2022 Disparity Study
Disparity Study Definitions**

APPENDIX P: DISPARITY STUDY DEFINITIONS

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

A&E: For the purpose of the City of Cincinnati Disparity Study includes, architecture and engineering, surveying, and construction management. A&E is one of the City of Cincinnati’s Study Industry Categories.

Availability: 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 Industry Category that is disaggregated by race/ethnicity/gender.

City of Cincinnati Market Area: For purposes of the Marketplace Contracting Disparities chapter, businesses or firms that are either willing, able, or have actually contracted/subcontracted with the City of Cincinnati, with the aim of determining if the likelihood of successful contracting/subcontracting opportunities—actual and perceived—with the City of Cincinnati is conditioned in a statistically significant manner on the race, ethnicity, or gender status of firm owners. Our ACS data define the City of Cincinnati Market Area is Hamilton County, Ohio.

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 14th 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: For the purposes of the City of Cincinnati Disparity Study includes the construction, erection, repair, renovation, or demolition of a public structure, building, street, road, wharf, and other public improvements. Construction is one of the City of Cincinnati’s Study Industry Categories.

Disadvantaged Business Enterprise: For purposes of this study, a Disadvantaged Business Enterprise (“DBE”) is a firm certified by the Ohio Department of Transportation under the following criteria (in part):

1. A for-profit small business concern;
2. That is at least 51 percent owned by one or more individuals who are both socially and economically disadvantaged or, in the case of a corporation, in which 51 percent of the stock is owned by one or more such individuals; and
3. Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.

Eligibility Requirements include, among others: a) Rebuttably presumed to be socially and economically disadvantaged are Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Subcontinent Asian Americans, and women. Others may be eligible on a case-by-case basis; b) The

socially and economically disadvantaged individual(s) owning and controlling a firm must have personal net worth (PNW) of less than \$1.32 million, and c) A firm must meet SBA small business size standards. However, if a firm that meets SBA small business size standards has gross receipts exceeding \$28.48 million (averaged over its previous three fiscal years), the firm's DBE certification will only be recognized on FAA-assisted projects--the certification will be inapplicable to ODOT projects as well as any other FHWA- or FTA-assisted projects.

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 for presenting the “factual predicate” identified by the Supreme Court as necessary for satisfying the strict scrutiny threshold for race-conscious programs and demonstrating the compelling governmental interest. A Disparity Study identifies the current effects of any discrimination and narrowly tailored remedies to redress such discrimination. Disparity Studies must adhere to the legal requirements of U.S Supreme Court decisions like *Croson* and its progeny. They 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.

ELBE: Emerging Local Business Enterprise, a race- and gender- neutral program. An ELBE must have had no more than five (5) full time employees at any one time during its existence, annual revenues (averaged over the life of the business) of no more than \$250,000, have been in existence for fewer than five (5) years, and have received no more than \$250,000 in payments under City contracts in the year immediately preceding application.

Good Faith Efforts: 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 City of Cincinnati’s Disparity Study includes commodities, materials, supplies, and equipment. Goods is one of the City of Cincinnati’s Study Industry Categories.

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

MBE or WBE or collectively 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, respectively and is certified as such. The ownership by minorities and women must be real and substantial. The minority group member(s) or women must have operational and managerial control, and interest in capital and earnings commensurate with the percentage of ownership.

Minority: Means those persons, citizens of the United States and lawfully admitted resident aliens, who are certified (by one of the Study certification sources) as African American, Asian American, Hispanic American, or Native American.

MWDBE: The GSPC survey of business owners asked firms if they were certified as Minority, Woman, or Disadvantaged Business Enterprises. Disadvantaged Business Enterprises are substantially all Minority- and Woman-owned businesses, so it is important for the study to capture information related to those

firms who may not have also certified as Minority- or Woman-owned. Therefore, the term MWDBE may be used when certified Disadvantaged Business Enterprises are included in the analysis.

Non-Minority Woman: Means those persons, citizens of the United States, that are certified (by one of the Study certification sources) as Woman-owned businesses but are not identified as members of any Minority group.

Other Race: For purposes of this Study, Other Race means that the firm owner identifies with a race or ethnic group that is not African American, Asian American, Hispanic American, Native American, Caucasian American, or publicly owned corporation.

Other Services: For the purposes of this Study includes firms that perform all other services, not included in Construction, A&E, and Professional Services. This includes lawn service, janitorial, IT services, printing, marketing, advertising, etc. Other Services is one of the City of Cincinnati's 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 for the Overutilization to be statistically significant, the Disparity Index must be greater than 100.

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 that has entered into direct contractual relationship with the City of Cincinnati, or other public or private entity to provide a good, service, or perform a scope of services.

Professional Services: For the purposes of the City of Cincinnati Disparity Study includes firms that perform services such as legal, medical, and consultant services. Professional Services is one of the City of Cincinnati's Study Industry Categories.

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 City of Cincinnati marketplace and whether, but for these, they would have the capacity to provide services on a higher level than is currently utilized.

Relevant Market: A 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 Prime Contractor firm location. For City of Cincinnati, the Relevant Market Area is Hamilton County, Ohio.

SLBE: Small Local Business Enterprise, a race- and gender- neutral City of Cincinnati business program. An SLBE must be independently owned and operated, with owners actively involved day-to-day, no more than thirty-five (35) full-time employees, annual revenues (averaged) of no more than \$1,000,000, and a principal place of business (or significant employee presence) within the City.

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

Study Period: The period between which all City of Cincinnati contract awards are subject to study analysis. For this study it has been defined as January 1, 2016 through December 31, 2020 (CY2016-CY2020).

Subcontractor: A business that 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.

Threshold and Contract Size: An analysis that breaks down contract awards by increasing dollar groups to see if there are any outliers in each Industry Category and the extent to which there are prime contracting opportunities for small businesses.

Total Utilization: Total Utilization reallocates dollars paid to a Subcontractor into the race, ethnicity, or gender category of the Subcontractor, rather than counting all dollars in an award only to the race, ethnicity, or gender category of the Prime Contractor.

Underutilization: The measure by which the Utilization percentage is less than the Availability percentage and the Disparity Index is below 100. In order for Underutilization to be statistically significant, the Disparity Index must be 80 or less.

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

Woman: For purposes of Chapter VI on Marketplace Contracting Disparities, women, not otherwise identified includes all women no matter their race or ethnicity.