

Annual Disparity Study Fiscal Year 2021

Public Works Contracts Analysis

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Philadelphia Commerce Department



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1. Introduction

1.1. Report Purpose

The Office of Economic Opportunity (OEO) in the City of Philadelphia Commerce Department requested this analysis of PW contracts, to understand at a more industry granular level the availability of Minority-Owned Business Enterprises (MBEs) and Woman-Owned Business Enterprises (WBEs) (collectively “MWBEs”), relative to the pool of all firms the City can do business with. Econsult Solutions, Inc. and Milligan Consulting, LLC (collectively “the ESI team”), which completed an Availability Study for the Office of Economic Opportunity (OEO) in September 2021, conducted this analysis for OEO. It also produced a separate companion study that took a closer look at MWBE availability for what it deems “Potentially Few or No Opportunity” (PFONO) contracts.

1.2. Report Background

In September 2021, the ESI team conducted an Availability Study for OEO. This analysis supports the Annual Disparity Study produced by OEO by taking a closer look at the availability of MWBEs to do business with the City, and at the unique barriers they face in doing business with the City.

The Annual Disparity Study is required of the City each year, per Title 17 of the Philadelphia Code, as amended by Ordinance No. 060855-A. Its purpose is to estimate the utilization of MWBEs in City contracts, relative to their availability. By determining the extent to which there is a disparity between utilization and availability, this analysis is foundational in establishing MWBE utilization goals for the City as a whole as well as for individual contracts.

The framework for this analysis is informed by the seminal US Supreme Court case, *Richmond v. JA Croson Company* (1989), which established that the setting of race- and gender-specific goals required an understanding of how historical utilization levels by a procurer related to the proportion of “ready, willing, and able” firms available to a procurer that are MWBEs. Disparity Studies have since then become recognized tools for procurers to determine whether and where disparity exists, in order to narrowly tailor race- and gender-specific remedies where appropriate.

OEO commissioned the ESI team to conduct an Availability Study as a complement to the Annual Disparity Study it was producing in-house. This Availability Study supported OEO’s work in determining whether and where race- and gender-specific goals are warranted in the following ways:

1. The Annual Disparity Study calculated estimates of the proportion of “ready, willing, and able” firms available to do business with the City on publicly available federal data that, while comprehensive in industry and geographic detail, were based on business surveys conducted several years ago. The ESI team greatly enhanced OEO’s understanding of availability by relying on its own contemporary surveying of businesses, yielding availability estimates that could more properly account for the current business landscape, inclusive of the effects of the COVID pandemic and other economic stressors.

2. The ESI team also did extensive interviews to collect anecdotal evidence of barriers and challenges faced by MWBEs, which is a court-proven form of support to warrant race- and gender-specific remedies.
3. Finally, the ESI team also conducted analyses of business formation rates and capital access distribution, to identify where race- and gender-specific disparities existed that also warranted some form of race- and gender-specific remedy.

In 2022, OEO commissioned two follow-up tasks intended to build on the insights gleaned from the Availability Study:

1. The first task is to take a closer look at contracts that OEO deems “Potentially Few or No Opportunity” to understand how close or far the potential is for MWBEs to become available in these industry categories.
2. The second task, which is the subject of this report, is to take a closer look at the specific goods and services needs in the City’s PW contracts, and to estimate MWBE availability at those more industry-granular levels.

2. Methodology and Scope

2.1. Overview

PW contracts tend to fall into one of three main 3-digit NAICS codes:

- 236 Construction of Buildings
- 237 Heavy and Civil Engineering Construction
- 238 Specialty Trade Contractors

Given the highly specialized nature of the construction industry and of the City's construction needs, it is helpful for OEO to understand at a more industry granular level exactly what construction goods and services the City procures. Otherwise, OEO's understanding of MWBE availability may be skewed. A hypothetical example is instructive:

If OEO were to base MWBE availability on the proportion of firms that are MWBEs in NAICS 237, it might arrive at a certain availability level for those PW contracts based on the composition of firms for that 3-digit NAICS.

However, it is possible that the City's actual spend under NAICS 237 is heavily weighted towards one or two 4-digit NAICS within NAICS 237.

If MWBE availability for those 4-digit NAICS is materially different than MWBE availability for NAICS 237, then OEO would want to define MWBE availability at the 4-digit level rather than based on data for NAICS 237 as a whole.

The purpose of this analysis methodology is therefore to better understand the City's spend at a more industry granular level, and attempt to understand MWBE availability at that more industry granular level. The remainder of this section elaborates on the process by which this was accomplished.

2.2. Preliminary PW Contract NAICS Code Assignments

The ESI team began its work by obtaining from OEO detailed information on all 82 of the City's PW contracts in FY21. It then looked up the main 6-digit NAICS code for the prime contractor that was awarded the contract. It was assumed that, more often than not although not always, the 6-digit NAICS code of the prime contractor selected for the contract was the best 6-digit NAICS to be assigned to that contract.

As noted above, this is more often than not the case. But, it does not have to be the case: the City could decide to select a firm whose primary 6-digit NAICS code is not the good or service that it has been selected for, but rather a secondary 6-digit NAICS code that it also does work in. Therefore, the appropriate representatives from each City department that had PW contracts were called on to verify that the best 6-digit NAICS code had been assigned, or if not that the best 6-digit NAICS for the contract was identified.

2.3. Further Distinctions at the 6-Digit NAICS Code Level

Given how specialized some City construction good and service needs are, “best 6-digit NAICS code” may not actually synchronize firm capacity with City requirements. In other words, in some cases that 6-digit NAICS code will properly define the good or service that the City procures, but in other cases the City’s construction needs defy such categorizations, rendering any 6-digit NAICS code a close approximation but not quite exactly what the City actually procures.

Given the need for such distinctions due to the specialized nature of many City construction good and service needs, additional refinement may be needed to assign an industry code and a set of business ownership data to a particular contract. Therefore, the ESI team further enlisted the assistance appropriate representatives from each City department that had PW contracts, in reviewing the ESI team’s preliminary assignment of 6-digit NAICS code to each contract, and in particular to advise on whether such preliminary assignments were accurate or not. City representatives were asked to sort these assignments into one of three categories:

- Good or service being procured is accurately captured by the 6-digit NAICS code that was preliminarily assigned to it.
- 6-digit NAICS code is generally correct, but the good or service being procured actually represents a subset of that 6-digit NAICS code, so it is difficult if not impossible to know if firms in that 6-digit NAICS can or cannot fulfill that particular good or service.
- Good or service being procured is so specialized or unique that it defies categorization into any 6-digit NAICS code, so the 6-digit NAICS code that was preliminarily assigned is close but not quite correct.

2.4. Availability Estimates at the 4-, 5-, and 6-Digit NAICS Code Level

Having established a preliminary 6-digit NAICS code to each contract and having determined whether that 6-digit NAICS code is accurate or not, the ESI team then pulled business census data from multiple publicly available federal data sets.¹ For each contract, data were pulled at the 6-digit NAICS code level as well as at the 5- and 4-digit level.

This analysis was augmented in two ways. First, as noted above the ESI team had previously conducted a direct survey of businesses as part of its Availability Study work. These survey results could therefore be referenced in better understanding MWBE availability for various PW contracts. Second, the ESI team reached out to industry contacts and business advocacy groups as a third-party source of guidance on whether MWBE availability made sense or required adjustments.²

¹ The following data sets were used in this analysis:

1. 2012 Survey of Business Owners
2. 2017 Annual Business Survey
3. 2016 Annual Survey of Entrepreneurs

In all cases, the data category used was “Firms with Employees,” as opposed to either “Firms,” “Revenues,” or “Revenues of Firms with Employees.” The geography used throughout this analysis was the 11-county Philadelphia-Camden-Wilmington, PA-NJ-DE-MD Metropolitan Statistical Area, hereafter referred to as “Philadelphia MSA.”

² See Appendix A for a full list of interviewees.

3. NAICS 236 Contracts

3.1. Overview

In FY21, the City had 29 PW contracts totaling \$74.7 million that fell under NAICS 236. This section takes a closer look at each of these contracts, to better understand MWBE availability at a more industry granular level.

3.2. Industry Distribution of NAICS 236 Contracts

Figure 3.1 presents an itemization of all FY21 City PW contracts that fell under NAICS 236.³ The majority of the City’s PW 236 NAICS contracts fell under NAICS code 236220: Commercial and Institutional Building Construction which accounted for more than 50 percent of City spending on all 236 related PW contracts. Slightly fewer contracts fell under NAICS code 236116: New Multifamily Housing and Construction, which accounted for 28 percent of all spending associated with PW contracts that were related to NAICS code 236. The remaining five contracts were for NAICS code 26115: New Single-Family Housing Construction, accounting for the remaining 17 percent of City spending related to 236 PW contracts.

Figure 3.1 – FY21 PW Contracts Under NAICS 236 by 6-Digit NAICS Code

NAICS #	NAICS Description	# Contracts in FY21	\$ Contracts in FY21
236115	New Single-Family Housing Construction	5	\$12,912,448
236116	New Multifamily Housing Construction	11	\$21,258,722
236220	Commercial and Institutional Building Construction	13	\$40,559,953
Total		29	\$74,731,123

Source: City of Philadelphia Office of Economic Opportunity (FY 2021), Econsult Solutions, Inc. (2022)

3.3. 6-Digit Detail

Figure 3.2 and 3.3 present availability estimates at the 6-digit level for all FY21 City PW contracts that fell under NAICS 236. Minority-owned business availability at the 6-digit level in the state of Pennsylvania for NAICS codes 236115: New Single-Family Housing Construction, 236116: New Multifamily Housing Construction, and 236220: Commercial and Institutional Building Construction is relatively scarce in comparison to the total number of firms in the industry within the state. For each individual 6-digit NAICS code under NAICS 236 in which the City spent money, there is less than one percent availability for minority-owned firms. For NAICS codes 236220 and 236115 minority participation is comprised primarily of WBE’s, while availability for minority-owned businesses under NAICS code 236116 is mainly Black-owned businesses. This is consistent with the general sentiment of industry experts and business

³ See Appendix B for a full list of FY21 City PW contracts that fell under NAICS 236.

advocates, who indicated that these specialized spending categories have historically tended to have very little MBE and WBE availability.

Figure 3.2 – Pennsylvania Estimated MWBE Availability Percentage for FY21 PW Contracts Under NAICS 236 by 6-Digit NAICS Code

NAICS #	Minority	Black	Hispanic	Asian	Female
236115	0.01%	0.00%	0.01%	0.00%	0.51%
236116	0.61%	0.61%	0.00%	0.00%	0.43%
236220***	0.43%	0.16%	0.21%	0.06%	0.60%

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

Figure 3.3 – Pennsylvania Estimated MWBE Availability Count for FY21 PW Contracts Under NAICS 236 by 6-Digit NAICS Code

NAICS #	Minority	Black	Hispanic	Asian	Female
236115	1	0	1	0	67
236116	7	7	0	0	5
236220	46	17	23	6	64

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

3.4. 5-Digit Detail

Figures 3.4 and 3.5 present availability estimates at the 5-digit level for all FY21 City PW contracts that fell under NAICS 236. Minority participation at the 5-digit level in the state of Pennsylvania for NAICS codes 23622: Commercial and Institutional Building Construction and 23611 Residential Building Construction is little-to-none. It should be noted that although availability levels appear higher at the 6-digit level for NAICS code 26116 which would fall under the 5-digit 23611 NAICS, there are approximately 40,000 more firms under the broader 5-digit 23611 NAICS which effectively reduce the availability percentage for minority firms within the industry. Thus, defining the spending category more broadly (i.e. at the 5-digit level rather than 6-digit level) introduces many more MBEs and WBEs that may be available, but on a percentage basis they still represent a small proportion of available businesses.

Figure 3.4 – Pennsylvania Estimated MWBE Availability Percentage for FY21 PW Contracts Under NAICS 236 by 5-Digit NAICS Code

NAICS #	Minority	Black	Hispanic	Asian	Female
23622	0.43%	0.16%	0.21%	0.06%	0.60%
23611	0.11%	0.04%	0.03%	0.05%	0.57%

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

Figure 3.5 – Pennsylvania Estimated MWBE Availability Count for FY21 PW Contracts Under NAICS 236 by 5-Digit NAICS Code

NAICS #	Minority	Black	Hispanic	Asian	Female
23622	46	17	23	6	64
23611	59	20	14	25	300

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

3.5. 4-Digit Detail

Figure 3.6 and 3.7 present availability estimates at the 4-digit level for all FY21 City PW contracts that fell under NAICS 236. The availability of minority-owned businesses at the 4-digit level in Pennsylvania for NAICS codes 2362: Industrial Building Construction and 2361: Residential Building Construction continues the trend of little-to-no availability exhibiting availability percentages of less than one percent in any given category. Hence, even broadening the spending category’s definition further still yields a relatively low proportion of MBEs and WBEs in the universe of available firms.

Figure 3.6 – Pennsylvania Estimated MWBE Availability Percentage for FY21 PW Contracts Under NAICS 236 by 4-Digit NAICS Code

NAICS #	Minority	Black	Hispanic	Asian	Female
2362	0.56%	0.14%	0.37%	0.05%	0.73%
2361	0.11%	0.04%	0.03%	0.05%	0.57%

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

Figure 3.7 – Pennsylvania Estimated MWBE Availability Count for FY21 PW Contracts Under NAICS 236 by 4-Digit NAICS Code

NAICS #	Minority	Black	Hispanic	Asian	Female
2362	68	17	45	6	88
2361	59	20	14	25	300

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

Figure 3.8 – MWBE Availability Count Based on OEO FY20 Availability Survey

NAICS #	Minority	Black	Hispanic	Asian	Female
236	39	31	6	4	10

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

4. NAICS 237 Contracts

4.1. Overview

In FY21, the City had 14 PW contracts totaling \$36.7 million that fell under NAICS 237. This section takes a closer look at each of these contracts, to better understand MWBE availability at a more industry granular level.

4.2. Industry Distribution of NAICS 237 Contracts

Figure 4.1 presents an itemization of all FY21 City PW contracts that fell under NAICS 237.⁴ Most of the City’s spending fell under NAICS 237110: Water and Sewer Line and Related Structures Construction which accounted for nearly 60 percent of all spend related to contracts under the 237 NAICS. The remaining 5 contracts fall under NAICS 237310: Highway, Street, and Bridge Construction account for the remaining 40 percent of spending related to contracts under NAICS 237.

Figure 4.1 – FY21 PW Contracts Under NAICS 237 by 6-Digit NAICS Code

NAICS #	NAICS Description	# Contracts in FY21	\$ Contracts in FY21
237310	Highway, Street, and Bridge Construction	5	\$15,070,632
237110	Water and Sewer Line and Related Structures Construction	9	\$21,630,590
Total		14	\$36,701,222

Source: City of Philadelphia Office of Economic Opportunity (FY 2021), Econsult Solutions, Inc. (2022)

4.3. 6-Digit Detail

Figure 4.2 and 4.3 present availability estimates at the 6-digit level for all FY21 City PW contracts that fell under NAICS 237. The availability of minority-owned businesses at the 6-digit level for NAICS 237310: Highway, Street, and Bridge Construction in the state of Pennsylvania is relatively low, however, exhibit higher levels of availability when compared to all 236 NAICS in the previous section. Conversely, minority-owned business availability is practically non-existent at the 6-digit level in the state of Pennsylvania for NAICS code 237110: Water and Sewer Line and Related Structures Construction where all minority-owned firms are WBE’s. This is substantiated through the viewpoint of industry experts and business advocates, who suggested more MBE and WBE availability but still relatively low levels.

⁴ See Appendix C for a full list of FY21 City PW contracts that fell under NAICS 237.

Figure 4.2 – Pennsylvania Estimated MWBE Availability Percentages for FY21 PW Contracts Under NAICS 237 by 6-Digit NAICS Code

NAICS #	Minority	Black	Hispanic	Asian	Female
237310***	0.82%	0.70%	0.11%	0.00%	2.17%
237110***	0.00%	0.00%	0.00%	0.00%	0.42%

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

Figure 4.3 – Pennsylvania Estimated MWBE Availability Counts for FY21 Contracts Under NAICS 237 by 6-Digit NAICS Code

NAICS #	Minority	Black	Hispanic	Asian	Female
237310	29	25	4	0	77
237110	0	0	0	0	11

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

4.4. 5-Digit Detail

Figure 4.4 and 4.5 present availability estimates at the 5-digit level for all FY21 City PW contracts that fell under NAICS 237. Availability for minority-owned firms at the 5-digit level in the state of Pennsylvania remain the same for both NAICS 23731: Highway, Street, and Bridge Construction and 23711: Water and Sewer Line and Related Structures Construction. This is because for each of these 5-digit NAICS codes, there is only one 6-digit NAICS code worth of businesses, and hence these figures are identical to the ones reported in the previous sub-section.

Figure 4.4 – Pennsylvania Estimated MWBE Availability Percentages for FY21 PW Contracts Under NAICS 237 by 5-Digit NAICS Code

NAICS #	Minority	Black	Hispanic	Asian	Female
23731	0.82%	0.70%	0.11%	0.00%	2.17%
23711	0.00%	0.00%	0.00%	0.00%	0.42%

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

Figure 4.5 – Pennsylvania Estimated MWBE Availability Counts for FY21 PW Contracts Under NAICS 237 by 5-Digit NAICS Code

NAICS #	Minority	Black	Hispanic	Asian	Female
23731	29	25	4	0	77
23711	0	0	0	0	11

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

4.5. 4-Digit Detail

Figure 4.6 and 4.7 present availability estimates at the 4-digit level for all FY21 City PW contracts that fell under NAICS 237. Availability for minority-owned firms in the state of Pennsylvania at the 4-digit level

for NAICS 2373: Highway, Street, and Bridge Construction remains consistent with availability levels presented at the 6-digit and 5-digit level of specificity. Whereas availability of minority-owned firms under NAICS code 2371: Utility System Construction slightly increases, however, availability is still scarce for these types of minority-owned firms. Industry experts and business advocates agreed that even this broader definition, MBE and WBE availability remained relatively low.

Figure 4.6 – Pennsylvania Estimated MWBE Availability Percentages for FY21 PW Contracts Under NAICS 237 by 4-Digit NAICS Code

NAICS #	Minority	Black	Hispanic	Asian	Female
2373	0.82%	0.70%	0.11%	0.00%	2.17%
2371	0.02%	0.00%	0.00%	0.02%	0.26%

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

Figure 4.7 – Pennsylvania Estimated MWBE Availability Counts for FY21 PW Contracts Under NAICS 237 by 4-Digit NAICS Code

NAICS #	Minority	Black	Hispanic	Asian	Female
2373	29	25	4	0	77
2371	1	0	0	1	11

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

Figure 4.8 – MWBE Availability Count Based on OEO FY20 Availability Survey

NAICS #	Minority	Black	Hispanic	Asian	Female
237	3	0	1	2	0

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

5. NAICS 238 Contracts

5.1. Overview

In FY21, the City had 32 PW contracts totaling \$56.7 million that fell under NAICS 238. This section takes a closer look at each of these contracts, to better understand MWBE availability at a more industry granular level.

5.2. Industry Distribution of NAICS 238 Contracts

Figure 5.1 presents an itemization of all FY21 City PW contracts that fell under NAICS 238.⁵ The majority of all NAICS 238 PW contracts embarked on by the City fell under NAICS code 238210: Electrical Contractors and Other Wiring Installation Contractors and NAICS code 238220: Plumbing, Heating, and Air-Conditioning Contractors. These two categories of spending account for a total of 72 percent of all spending on NAICS 238 related contracts (44 percent and 28 percent, respectively). The remaining spend under this category of PW contracts were distributed to NAICS codes 238910: Site Preparation Contractors, 238990: All Other Specialty trade Contractors, 238160: Roofing Contractors, and 238140: Masonry Contractors. Spending in these NAICS categories amount to a total of eight contracts which account for the remaining 28 percent of spending related to NAICS 238.

Figure 5.1 – FY21 PW Contracts Under NAICS 238 by 6-Digit NAICS Code

NAICS #	NAICS Description	# Contracts in FY21	\$ Contracts in FY21
238220	Plumbing, Heating, and Air-Conditioning Contractors	10	\$15,926,610
238210	Electrical Contractors and Other Wiring Installation Contractors	14	\$25,010,291
238910	Site Preparation Contractors	5	\$4,500,304
238990	All Other Specialty Trade Contractors	1	\$414,055
238160	Roofing Contractors	1	\$6,422,852
238140	Masonry Contractors	1	\$4,442,000
		32	\$56,716,111

Source: City of Philadelphia Office of Economic Opportunity (FY 2021), Econsult Solutions, Inc. (2022)

5.3. 6-Digit Detail

Figure 5.2 and 5.3 present availability estimates at the 6-digit level for all FY21 City PW contracts that fell under NAICS 238. The availability of minority-owned firms at the 6-Digit level in the state of Pennsylvania for NAICS code 23210: Electrical Contractors and Other Wiring Installation Contractors is the highest of 238 related NAICS codes for which the City spent money with in FY21. However, all of these NAICS have higher WBE participation at the 6-digit level than those listed under 236 and 237

⁵ See Appendix D for a full list of FY21 City PW contracts that fell under NAICS 238.

related NAICS codes from previous sections. Meaning that although the availability of minority-owned firms in terms of race is relatively scarce, it is more likely to have WBE participation within these 238 related NAICS. This is promising, that there is a baseline critical mass of available MBEs and WBEs for the City to select from, something verified through interviews with industry experts and business advocates.

Figure 5.2 – Pennsylvania Estimated MWBE Availability Percentages for FY21 PW Contracts Under NAICS 238 by 6-Digit NAICS Code

NAICS #	Minority	Black	Hispanic	Asian	Female
238220***	0.20%	0.10%	0.01%	0.10%	1.36%
238210***	0.46%	0.17%	0.04%	0.25%	1.07%
238910***	0.02%	0.01%	0.00%	0.01%	2.10%
238990***	0.16%	0.10%	0.06%	0.00%	3.15%
238160***	0.18%	0.10%	0.00%	0.08%	1.00%
238140***	0.07%	0.07%	0.00%	0.00%	1.17%

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

Figure 5.3 – Pennsylvania MWBE Availability Counts for FY21 PW Contracts Under NAICS 238 by 6-Digit NAICS Code

NAICS #	Minority	Black	Hispanic	Asian	Female
238220	59	28	2	29	392
238210	51	34	8	9	213
238910	3	1	0	2	302
238990	16	10	6	0	319
238160	11	6	0	5	62
238140	7	7	0	0	113

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

5.4. 5-Digit Detail

Figure 5.4 and 5.5 present availability estimates at the 5-digit level for all FY21 City PW contracts that fell under NAICS 238. Minority-owned business participation in the state of Pennsylvania for 238 related NAICS contracts which the City spent money with remains the same at the 5-Digit level. This is because for each of these 5-digit NAICS codes, there is only one 6-digit NAICS code worth of businesses, and hence these figures are identical to the ones reported in the previous sub-section.

Figure 5.4 – Pennsylvania Estimated MWBE Availability Percentages for FY21 PW Contracts Under NAICS 238 by 5-Digit NAICS Code

NAICS #	Minority	Black	Hispanic	Asian	Female
23822	0.20%	0.10%	0.01%	0.10%	1.36%
23821	0.26%	0.17%	0.04%	0.05%	1.07%
23891	0.02%	0.01%	0.00%	0.01%	2.10%

23899	0.16%	0.10%	0.06%	0.00%	3.15%
23816	0.18%	0.10%	0.00%	0.08%	1.00%
23814	0.07%	0.07%	0.00%	0.00%	1.17%

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

Figure 5.5 – Pennsylvania Estimated MWBE Availability Counts for FY21 PW Contracts Under NAICS 238 by 5-Digit NAICS Code

NAICS #	Minority	Black	Hispanic	Asian	Female
23822	59	28	2	29	392
23821	51	34	8	9	213
23891	3	1	0	2	302
23899	16	10	6	0	319
23816	11	6	0	5	62
23814	7	7	0	0	113

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

5.5. 4-Digit Detail

Figure 5.6 and 5.7 present availability estimates at the 4-digit level for all FY21 City PW contracts that fell under NAICS 238. The overall availability of minority-owned firms at the 4-digit level slightly decreases from availability levels at the 5-digit and 6-digit level for 238 related NAICS codes although the number of firms in each minority category increases. This is likely due to the increase in the number of firms as the NAICS code becomes broader. For instance, there are approximately 30,000 more firms present for NAICS 2382: Building Equipment Contractors than for NAICS 23821: Electrical Contractors and Other Wiring Installation Contractors which effectively decreases availability. Still, it is good for the City to know there are numerous MBEs and WBEs at this level of industry definition.

Figure 5.6 – Pennsylvania Estimated MWBE Availability Percentages for FY21 PW Contracts Under NAICS 238 by 4-Digit NAICS Code

NAICS #	Minority	Black	Hispanic	Asian	Female
2382	0.23%	0.13%	0.02%	0.08%	1.24%
2389	0.08%	0.04%	0.02%	0.01%	2.54%
2381	0.11%	0.06%	0.02%	0.03%	1.16%

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

Figure 5.7—Pennsylvania Estimated Availability Counts for FY21 PW Contracts Under NAICS 238 by 4-Digit NAICS Code

NAICS #	Minority	Black	Hispanic	Asian	Female
2382	114	64	12	38	627
2389	19	11	6	2	622
2381	31	17	5	9	323

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

Figure 5.8 -- MWBE Availability Count Based on OEO FY20 Availability Survey

NAICS #	Minority	Black	Hispanic	Asian	Female
238	24	16	4	1	4

Source: US Census Bureau (2012), Econsult Solutions, Inc. (2022)

6. Conclusion

This report has endeavored to understand MBE and WBE availability for PW contracts at a more granular level. It has accomplished this by taking advantage of publicly available federal business census data, for which ownership by race/ethnicity and sex can be known at the 4-, 5-, and 6-digit level at the state level. Pennsylvania data were obtained, synthesized, and presented in this report.

By and large, they indicate that at more industry granular definitions of City spend, MBE and WBE availability is, at least at the statewide level, relatively low. Across industry categories, there appears to be great variation.

- For some categories, such as Water and Sewer Line and Related Structures Construction (NAICS 237110), there are hardly any minority- or woman-owned businesses in the entire state. In such cases, it seems unlikely that the City would have much ability to benefit from or develop a deep pool of MBE and WBE firms to choose from when procuring that particular PW good or service.
- Conversely, for other categories, such as Electrical Contractors and Other Wiring Installation Contractors (NAICS 238210), even if in percentage terms MBE and WBE availability was estimated to be low statewide, the relatively large numbers of minority- and woman-owned businesses suggested that the City does have the ability to connect with and select MBEs and WBEs, and similarly that it is in a position to recruit, grow, and support the universe of MBEs and WBEs getting larger.

This report therefore represents a useful supplement to contemporary high-level analyses of MBE and WBE availability. Together, OEO can derive an understanding of broader patterns and compositions around business ownership, from which to set overall goal levels and establish policies and programs; and it has more granular information from which to approach department-specific, category-specific, and ultimately contract-specific goal setting.

Appendix A – Full List of FY21 City PW Contracts That Fell Under NAICS 236

NAICS #	Vendor	Amount	Description
236220	A.P. Construction, Inc	\$12,540,875	Commercial and Institutional Building Construction
236220	Daniel J. Keating Company	\$6,441,490	Commercial and Institutional Building Construction
236220	C & H INDUSTRIAL SERVICES	\$6,312,600	Commercial and Institutional Building Construction
236220	A.P. Construction, Inc	\$5,638,600	Commercial and Institutional Building Construction
236220	CARUSONE CONSTRUCTION, INC.	\$5,180,469	New Single-Family Housing Construction
236115	Quad Construction Company	\$5,141,800	New Multifamily Housing Construction
236116	Quad Construction Company	\$4,541,900	New Multifamily Housing Construction
236220	JPC Group, Inc.	\$4,168,000	New Multifamily Housing Construction
236116	Seravalli Const Co Inc	\$3,927,000	New Single-Family Housing Construction
236220	Pedro Palmer	\$2,297,539	Commercial and Institutional Building Construction
236220	CARUSONE CONSTRUCTION, INC.	\$2,063,720	New Single-Family Housing Construction
236220	NELLO CONSTRUCTION CO INC	\$2,042,355	Commercial and Institutional Building Construction
236115	A.P. Construction, Inc	\$2,000,000	Commercial and Institutional Building Construction

NAICS #	Vendor	Amount	Description
236116	JPC Group, Inc.	\$1,971,114	New Multifamily Housing Construction
236116	CARUSONE CONSTRUCTION, INC.	\$1,341,200	New Single-Family Housing Construction
236116	JPC Group, Inc.	\$1,275,617	New Multifamily Housing Construction
236115	A.P. Construction, Inc	\$1,016,675	Commercial and Institutional Building Construction
236115	JPC Group, Inc.	\$988,000	New Multifamily Housing Construction
236220	JPC Group, Inc.	\$915,915	New Multifamily Housing Construction
236116	A.P. Construction, Inc	\$830,385	Commercial and Institutional Building Construction
236115	GESSLER CONSTRUCTION CO INC	\$778,350	Commercial and Institutional Building Construction
236220	JPC Group, Inc.	\$758,625	New Multifamily Housing Construction
236116	JPC Group, Inc.	\$636,580	New Multifamily Housing Construction
236116	JPC Group, Inc.	\$577,000	New Multifamily Housing Construction
236220	R.C. Legnini Company, Inc.	\$401,535	Commercial and Institutional Building Construction
236220	Monticello Contractors	\$400,059	New Single-Family Housing Construction
236116	JPC Group, Inc.	\$284,170	New Multifamily Housing Construction
236116	J. J. White Inc.	\$195,800	Commercial and Institutional Building Construction
236116	D Pasholi	\$63,749	Commercial and Institutional Building Construction

Source: City of Philadelphia Office of Economic Opportunity (FY 2021), Econsult Solutions, Inc. (2022)

Appendix B – Full List of FY21 City PW Contracts That Fell Under NAICS 237

NAICS #	Vendor	Amount	Description
237110	Philip Pio Construction, Inc.	\$5,238,359	Water and Sewer Line and Related Structures Construction
237310	James J. Anderson Construction Co., Inc.	\$4,573,613	Highway, Street, and Bridge Construction
237310	RAMOS & ASSOCIATES INC	\$4,285,023	Highway, Street, and Bridge Construction
237110	Petrongolo Contractors Inc	\$3,568,240	Water and Sewer Line and Related Structures Construction
237110	Tony DePaul and Son	\$3,293,556	Water and Sewer Line and Related Structures Construction
237310	James J. Anderson Construction Co., Inc.	\$2,991,229	Highway, Street, and Bridge Construction
237110	Petrongolo Contractors Inc	\$2,832,350	Water and Sewer Line and Related Structures Construction
237310	James J. Anderson Construction Co., Inc.	\$2,508,967	Highway, Street, and Bridge Construction
237110	Danella Companies	\$1,547,920	Water and Sewer Line and Related Structures Construction
237110	Petrongolo Contractors Inc	\$1,369,070	Water and Sewer Line and Related Structures Construction
237110	Petrongolo Contractors Inc	\$1,338,055	Water and Sewer Line and Related Structures Construction
237110	Petrongolo Contractors Inc	\$1,319,675	Water and Sewer Line and Related Structures Construction
237110	Philip Pio Construction, Inc.	\$1,123,365	Water and Sewer Line and Related Structures Construction

NAICS #	Vendor	Amount	Description
237310	James J. Anderson Construction Co., Inc.	\$711,800	Highway, Street, and Bridge Construction

Source: City of Philadelphia Office of Economic Opportunity (FY 2021), Econsult Solutions, Inc. (2022)

Appendix C – Full List of FY21 City PW Contracts That Fell Under NAICS 238

NAICS #	Vendor	Amount	Description
238210	PHILIPS BROTHERS ELECTRICAL CONTRACTORS, INC.	\$10,480,227	Electrical Contractors and Other Wiring Installation Contractors
238160	Pravco, Inc.	\$6,422,852	Roofing Contractors
238140	JONES MASONRY RESTORATION CORP	\$4,442,000	Masonry Contractors
238220	G & S Mechanical USA, Inc.	\$4,386,728	Plumbing, Heating, and Air-Conditioning Contractors
238220	DEVINE BROTHERS, INC.	\$2,985,000	Plumbing, Heating, and Air-Conditioning Contractors
238210	Seravalli Const Co Inc	\$2,929,000	Electrical Contractors and Other Wiring Installation Contractors
238220	Five Star Inc	\$2,252,000	Plumbing, Heating, and Air-Conditioning Contractors
238210	Carr & Duff Inc.	\$2,117,385	Electrical Contractors and Other Wiring Installation Contractors
238220	Surety Mechanical Services, Inc	\$2,000,000	Plumbing, Heating, and Air-Conditioning Contractors
238210	E.J. Electric, Inc.	\$1,965,700	Electrical Contractors and Other Wiring Installation Contractors
238910	Mangual Demolition	\$1,750,392	Site Preparation Contractors
238220	Surety Mechanical Services, Inc	\$1,634,600	Plumbing, Heating, and Air-Conditioning Contractors
238210	Goldsmith Associates, Inc.	\$1,532,129	Electrical Contractors and Other Wiring Installation Contractors

NAICS #	Vendor	Amount	Description
238910	A&M Curran	\$1,504,606	Site Preparation Contractors
238220	Kaser Mechanical, LLC	\$1,353,000	Plumbing, Heating, and Air-Conditioning Contractors
238210	Phillips Bros. Elec. Contrs., Inc.	\$1,337,999	Electrical Contractors and Other Wiring Installation Contractors
238910	FH Demolition	\$984,125	Site Preparation Contractors
238210	Fidelity Burglar & Fire Alarm Company Inc.	\$961,363	Electrical Contractors and Other Wiring Installation Contractors
238210	Carr & Duff Inc.	\$773,531	Electrical Contractors and Other Wiring Installation Contractors
238210	E.J. ELECTRIC, INC.	\$762,445	Electrical Contractors and Other Wiring Installation Contractors
238210	PHILIPS BROTHERS ELECTRICAL CONTRACTORS, INC.	\$694,777	Electrical Contractors and Other Wiring Installation Contractors
238210	Eagle Industrial Electric, Inc.	\$691,081	Electrical Contractors and Other Wiring Installation Contractors
238220	Surety Mechanical Services, Inc.	\$615,250	Plumbing, Heating, and Air-Conditioning Contractors
238220	DEVINE BROTHERS, INC.	\$480,350	Plumbing, Heating, and Air-Conditioning Contractors
238990	EK Multiservice	\$414,055	All Other Specialty Trade Contractors
238210	MULHERN ELECTRIC CO INC	\$369,098	Electrical Contractors and Other Wiring Installation Contractors
238210	PHILIPS BROS. ELEC. CONTRS.,INC.	\$265,475	Electrical Contractors and Other Wiring Installation Contractors

NAICS #	Vendor	Amount	Description
238910	Gama Wrecking	\$155,581	Site Preparation Contractors
238210	Palman Electric, Inc	\$130,082	Electrical Contractors and Other Wiring Installation Contractors
238220	DEVINE BROTHERS, INC.	\$124,642	Plumbing, Heating, and Air-Conditioning Contractors
238910	Geppert Brothers	\$105,600	Site Preparation Contractors
238220	Surety Mechanical Services, Inc	\$95,040	Plumbing, Heating, and Air-Conditioning Contractors

Source: City of Philadelphia Office of Economic Opportunity (FY 2021), Econsult Solutions, Inc. (2022)

Appendix D – About the Project Team

Econsult Solutions, Inc.

This report was produced by Econsult Solutions, Inc. (“ESI”). ESI is a Philadelphia-based economic consulting firm that provides businesses and public policy makers with economic consulting services in urban economics, real estate economics, transportation, public infrastructure, development, public policy and finance, community and neighborhood development, planning, as well as expert witness services for litigation support. Its principals are nationally recognized experts in urban development, real estate, government and public policy, planning, transportation, non-profit management, business strategy and administration, as well as litigation and commercial damages. Staff members have outstanding professional and academic credentials, including active positions at the university level, wide experience at the highest levels of the public policy process and extensive consulting experience.

Milligan Consulting

Milligan Consulting (Milligan) is a Limited Liability Corporation (LLC), which was initially established under Milligan & Company as a sole proprietorship in 1987 in Philadelphia County, Pennsylvania. Milligan & Company is a minority and veteran-owned firm which became a Pennsylvania LLC in 1999 as a regional full-service Consulting and Certified Public Accounting firm. The firm is currently in its 34th year of business. In 2021, the consulting practice was established as a separate entity from the accounting practice to become Milligan Consulting with fifteen existing employees and continues to be controlled by Principals, M. Denise Bailey, John Milligan, and Diane King. The firm is headquartered in Philadelphia, PA and serves clients nationally. Over the past thirty years, Milligan has developed highly-specialized niche practices in the areas of: Civil Rights Program Oversight (including DBE, Equal Employment Opportunity (EEO), Americans with Disabilities Act (ADA), and Title VI); Management, and Training; Transportation Oversight and Compliance; and Economic Development Consulting.

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