FINAL REPORT
NOVEMBER 2019

2019 THIRD GENERATION DISPARITY STUDY
CITY OF DAYTON

SUBMITTED BY:
REGGIE SMITH
VICE PRESIDENT
516 NORTH ADAMS STREET
TALLAHASSEE, FLORIDA 32301
850.386.3191
rsmith@mgtconsulting.com

WWW.MGTCONSULTING.COM
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CHAPTER 1. INTRODUCTION

2019 Third Generation Disparity Study

City of Dayton
1.1 INTRODUCTION

The City of Dayton engaged MGT Consulting Group (MGT) to conduct its Third Generation Disparity Study. The objective of this study is to determine if there are any disparities that continues to exist between the utilization of minority, or women business enterprises (M/WBEs) compared to the availability of M/WBEs in the marketplace who are ready, willing, and able to perform work with the City.

The objectives of this study were:

- Determine whether the City, either in the past or currently, engages in discriminatory practices in the solicitation and award of contracts in Construction, Architecture and Engineering, Professional Services, Other Services, and Goods and Supplies to M/WBEs.
- Determine if a legally justified need exists for the continuation of an M/WBE program in accordance with the guidelines set forth by the Supreme Court and relevant subsequent cases including the consideration of race- and gender-based programs based on the study’s findings.

To achieve the Study’s objectives, MGT examined the statistical data for the study period January 1, 2013, through December 31, 2017 in the following business categories:

- Architecture and Engineering;
- Construction;
- Professional Services;
- Other Services; and
- Goods and Supplies.

Within the business categories, the Study analyzes whether a disparity exists between the number of available M/WBEs providing goods or services (availability) and the number of M/WBEs contracting with the City as prime contractors or subcontractors (utilization). This report includes major findings and recommendations based upon qualitative and quantitative analyses necessary for a comprehensive disparity study.

1.2 STUDY TEAM

MGT is a Tallahassee-based research and management consulting firm. Since 1990, MGT has conducted over 214 disparity and disparity-related studies. The team of experts who dedicated their time, attention, and expertise to this study are presented below. The assistance of personnel within the City, especially the Human Relations Council and Procurement Department made the successful completion of this project possible.
The team of experts that dedicated their time, attention, and expertise to this study include:

**MGT of America Consulting, LLC**

**Dr. Fred Seamon, Executive Vice President/Qualitative Researcher.** Dr. Seamon was responsible for ensuring the team had the necessary staff and resources to address the deliverables set forth in the scope of work. Dr. Seamon also conducted the review of procurement policies, procedures, and programs. Dr. Seamon has over 30 years of consulting, research, and teaching experience. He has been conducting research related to access and equity since he was a graduate student. Dr. Seamon has been involved in over 100 of MGT’s disparity and disparity-related research studies. His disparity study areas of expertise include qualitative research methods, community engagement, and outreach and policy analysis. He has extensive experience analyzing the structure, operations, and processes of public sector organizations and nonprofit agencies and conducting research studies related to access, equity, and disparities in education, business, and human services. His consulting experience also includes workforce development, organizational development, program evaluation, program auditing, and performance management in workforce development, developmental disabilities, and community philanthropy.

**Mr. Reggie Smith, Vice President, Disparity Research.** Mr. Smith is the leader of MGT’s disparity study business unit and is nationally recognized expert in managing and directing disparity studies. Mr. Smith provided overall management and assistance to ensure the City’s study was conducted in an accurate, reliable, valid, and legally defensible manner. Mr. Smith was also responsible for all project deliverables and assisted in the qualitative data collection for the City. He has directed over three dozen studies and has managed some of the largest disparity studies in the country. Mr. Smith is a highly skilled project manager with the knowledge and skills necessary to oversee the complexity of a disparity study. In addition to his disparity study experience, Mr. Smith has extensive knowledge in consulting, training, and public relations services to private and public-sector agencies, particularly in local government. Mr. Smith also specializes in the management and direction of reengineering, operational assessments, organizational and performance reviews, and administrative technology projects for city, county, and state government agencies.

**Ms. Vernetta Mitchell, Project Manager/Qualitative Team Leader.** Ms. Mitchell was the day-to-day point of contact for the City. She was directly responsible for the anecdotal research study component. In addition, she managed and oversaw the assignments of MGT staff and subconsultants, maintained regular communications with City and MGT staff to ensure timely completion of deliverables, and the qualitative data collection and research. Ms. Mitchell has over 20 years of experience administering, developing, and monitoring minority, women, small, and disadvantaged business programs within local government and private sector companies. In addition, her experience extends to the functional knowledge of government procurement for construction, services, and goods. She has extensive knowledge and experience in project management, project scheduling, analytical reporting, qualitative research, facilitation, and public relations. Ms. Mitchell’s experience in procurement, construction, and program administration has expanded her expertise in the development and management of data collection processes that has led to more efficient analyses and reporting of business participation.

**Mr. Andres Bernal, JD, Senior Consultant/Quantitative Analyst.** Mr. Bernal was responsible for the quantitative data analyses for the City’s study. Mr. Bernal has research expertise in economic theories, including microeconomic theory, macroeconomic theory, econometrics, urban economics, experimental
economics, human and labor resource economics, and regression analysis. He has done extensive research using statistics and mathematical computations to analyze data. Mr. Bernal has extensive experience in SAS, SPSS, database design, Excel, PowerPoint, File Maker Pro, Word Perfect, Microsoft Word, and conducting detailed research. He is bilingual with fluency in English and Spanish.

SUBCONSULTANTS

Ms. Adriene Heard, Heard Management. Heard Management provides management consulting services, which include strategic planning and implementation, standard operating procedures, employee and team building programs, management training, human resources and leadership development. Using training and experience from a variety of workplace settings, Heard Management develops management tools to help organizations succeed. For the City’s study, Heard Management conducted the in-depth interviews with business owners, area trade associations, and business organizations, and managed three community engagement meetings.

Ms. Anneliese Oppenheim, Oppenheim Research. Ms. Oppenheim conducted survey of area business owners in the City’s relevant market area, including the custom census surveys for the calculation of availability estimates, and the vendor survey for qualitative data collection. Ms. Oppenheim has worked with MGT for more than 12 years on disparity studies and disparity-related research work. Based in Tallahassee, Florida, the firm serves both large and small clients at local, regional, and national levels for survey research and marketing projects.

1.3 BACKGROUND

The City conducted its first disparity study in 1989, then followed with an updated study in 2008 also conducted by MGT. As explained in Chapter 2 of this report, it is important that public agencies to establish a justifiable reason to continue any race- and gender-based procurement programs.


The City also requested a review of it Affirmative Action Assurance (AAA) program and recommendations to increase its effectiveness and legal compliance. The AAA Program objective is to ensure that firms contracted with the City adopt and implement a nondiscriminatory policy in employment.

1.4 OVERVIEW OF STUDY APPROACH AND METHODOLOGY

MGT’s overall approach and methodology utilized research methods consistent with predominant, controlling, and relevant legal precedents. Specifically, MGT’s approach addressed these precedents by breaking the analysis into prime and subcontracts, disaggregating data by procurement type, examining contracts of a certain size, obtaining capacity information by surveying vendors, and conducting multiple
regression analyses. MGT developed several research questions that were used to shape our methodology and research activities. The overarching research question was “Is there factual predicate evidence for the continuation of the City’s PEP program?” The research questions in Exhibit 1 served as the guiding framework for MGT’s approach and methodology for this study and are embedded in our conclusions.

Within the context of addressing research questions, this study included a review of changes in utilization, availability, disparity, and program practices from the 2008 study. However, there are methodological differences between the 2008 and 2019 studies that will not allow for an “apples to apples” comparison. Nevertheless, general comparisons are useful in understanding changes in minority and women business utilization.

The two major methodological differences between 2008 and 2019 are the methods used to calculate utilization and availability. In the 2008 study, calculations were based on award dollars for contracts whereas contract expenditures were used in this study. The use of award dollars can sometimes falsely project dollars spent. Expenditure or payments data reflect dollars distributed and is a more accurate indicator of the economic impact to business.

The availability estimates in the 2008 study used the vendor approach. In 2019, MGT calculated estimates of availability using the “custom census” method. This is a widely accepted methodology for determining availability using data retrieved from Dun & Bradstreet. More details are explained in Chapter 5, Availability and Disparity Analyses.

MGT frequently communicated with the City to ensure full and complete understanding and acceptance of these methodologies before they were deployed. A comprehensive work plan with specific tasks was developed for the City’s study that allowed study team members to analyze the availability and utilization of M/WBEs in the procurement practices and attempt to address each research question.

EXHIBIT 1-1. RESEARCH QUESTIONS

1. How does case law inform the research methodology in the City’s region?
2. Is there statistical evidence of disparity between the availability and utilization of PEP firms? If so, what are the most relevant causal factors that contribute directly or indirectly to the disparities?
3. Does the City passively engage in practices which result in disparities?
4. Are there statistically significant disparities in the utilization of minority- and/or women-owned firms by prime contractors on projects where there are no PEP goals?
5. Is there qualitative/anecdotal evidence of disparate treatment of PEP subcontractors by prime contractors?

MGT’s work plan consisted of, but was not limited to, the following major tasks:

- Establish data parameters and finalize a work plan.
- Review policies, procedures, and programs.

Further explained in NCHRP Report 644, Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program.
• Conduct market area and utilization analysis.
• Determine the availability of qualified firms.
• Analyze the utilization and availability data for disparity.
• Conduct a survey of business owners.
• Collect and analyze anecdotal information.
• Prepare and present the final report for the study.

To prepare the draft and final disparity study report, the study team reviewed the data and preliminary findings with the City to address any inaccuracies prior to producing a draft report for review and comment.

1.5 REPORT ORGANIZATION

In addition to this introductory chapter, this report consists of:

CHAPTER 2.0 LEGAL FRAMEWORK
Presents the legal framework and an overview of the controlling legal precedents that impact remedial procurement programs, with a concentration on the Sixth Circuit.

CHAPTER 3.0 REVIEW OF POLICIES, PROCEDURES, AND PROGRAMS
Provides a review of the City’s policies, procedures, programs, and race- and gender-neutral efforts.

CHAPTER 4.0 MARKET AREA AND UTILIZATION ANALYSES
The Market Area Analysis presents the methodology used to determine City’s relevant market area, and the analyses for the procurement of contracting, goods, and services activities.

The Utilization Analysis presents the methodology used to determine the statistical analysis of vendor utilization by the City,

CHAPTER 5.0 AVAILABILITY AND DISPARITY ANALYSES
Provides a discussion of the availability of firms and the levels of disparity for vendors, as well as a review of the multivariate analysis for City.

CHAPTER 6.0 PRIVATE SECTOR ANALYSIS
Presents an analysis of the presence of disparity in the private sector, and its effect on the ability of firms to win procurement contracts from the City.

CHAPTER 7.0 ANECDOTAL ANALYSIS
Presents an analysis of anecdotal data collected from the survey of business owners, personal interviews, focus groups, and public hearings.
**CHAPTER 8.0 FINDINGS AND RECOMMENDATIONS**

Provides a summary of the findings presented in previous chapters, along with commendations and recommendations.

**APPENDICES**

Presents additional analyses, documents used to conduct the study, and supplemental documentation.

The consultant team recommends reading the report in its entirety to understand the basis for the findings and conclusions presented in Chapter 8.0, Findings and Recommendations.

### 1.6 GLOSSARY OF TERMS

To help with the understanding of terms used through the report, the following definitions are provided.

- **Anecdotal Data**: A personal account of incidents collected through surveys, interviews, public hearings, and focus groups.

- **Aspirational Goal**: A benchmark percentage of spending by an agency with a particular group over a period of time. The aspirational goal is typically an annual goal.

- **Awards**: Awards reflect anticipated dollar amounts a prime contractor or vendor are scheduled to receive upon completion of a contract.

- **Combined Statistical Area**: A combination of adjacent Metropolitan Statistical Area (MSA) and micropolitan statistical areas as defined by the U.S. Census Bureau.

- **Compelling Interest**: Factual demonstration by a government agency of strong evidence of past or present racial discrimination sufficient to justify remedial action.

- **Contract**: All types of City agreements, to include direct payments and purchase orders, for the procurement of Construction, Architecture and Engineering, Professional Services, and Goods and Services.

- **Custom Census Business Survey**: A short survey of randomly selected firms supplied by Dun & Bradstreet, asking ethnic and gender status; experience bidding or considering bidding on projects by the City; experience bidding and working as a prime contractor, subcontractor, or both. The Custom Census is used to help determine estimates of business availability and collection qualitative data.

- **Disparity Index/Disparity Ratio**: The ratio of the percentage of utilization and the percentage of availability for a particular demographic group time 100. Disparities were calculated for primes and subcontractors for each of the business categories.

- **Disparity Study**: A study that reviews and analyzes the utilization and availability of disadvantaged, minority- and women-owned businesses in a particular market.
area to determine if disparity exists in the awarding of contracts to minority, women and small business enterprises by a public entity.

**Expenditures**
Expenditures are payments made by City to primes and payments made by primes to subcontractors.

**Good Faith Efforts**
Documented evidence of activities that occurred to meet established project goals to contract with M/WBE firms.

**Intermediate Scrutiny**
The second level of federal judicial review to determine whether certain governmental policies are constitutional. Less demanding than “strict scrutiny.”

**M/WBE**
An acronym for Minority/Women Business Enterprise. A business/firm in which an ethnic minority or nonminority woman (or group thereof) owns at least 51 percent of the general stock and controls the day-to-day operations.

**MBE**
An acronym for Minority Business Enterprise. A business which is at least 51% owned and operated by a person(s) who is African American, Asian American, Hispanic American, or Native American.

**MSA**
Metropolitan Statistical Area. A geographic entity defined by the U.S. Office of Management and Budget (OMB) for use by Federal statistical agencies in collecting, tabulating, and publishing Federal statistics.

**Non-M/WBE**
An acronym for firms not identified as minority or women-owned.

**Passive Discrimination**
The act of perpetuating discrimination by awarding contracts to firms that discriminate against minority and women-owned firms.

**Post-enactment**
Actions or events that take place after law has been changed.

**Pre-enactment**
Actions or events that take place before or during current law.

**Prima Facie**
Legally sufficient to establish a fact or a case.

**Prime**
The contractor or vendor to whom a purchase order or contract is issued by City.

**Private Sector**
The for-profit part of the national economy that is not under direct government control.

**Procurement Category**
The type of service or good provided under a contract awarded. The categories analyzed are Construction, Architecture & Engineering, Professional Services, Other Services, and Materials & Supplies.
<table>
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<th>Term</th>
<th>Definition</th>
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<tr>
<td>Procurement Enhancement Program (PEP)</td>
<td>Establishes aspirational goals to overcome barriers for minority-owned, woman-owned, small and local companies.</td>
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<td>Project Goals</td>
<td>Goals placed on an individual project or contract, as opposed to aspirational goals, placed on overall agency spending.</td>
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<tr>
<td>Public Sector</td>
<td>The non-profit part of the economy that is controlled by the government.</td>
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<tr>
<td>PUMS</td>
<td>Public Use Microdata Sample (PUMS) contains records for a sample of housing units with information on the characteristics of each unit and each person in it. PUMS files are available from the American Community Survey (ACS) and the Decennial Census.</td>
</tr>
<tr>
<td>Regression Analysis</td>
<td>Technique for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables. For the purposes of this study, a multivariate regression was used to examine the influence of selected company and business characteristics, especially owner race and gender, on gross revenues reported by firms participating in a survey of vendors administered during the study.</td>
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<tr>
<td>Relevant Market</td>
<td>The geographical area where the bulk of the firms are located that transact with the City.</td>
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<td>SBE</td>
<td>An acronym for Small Business Enterprise. A business whose personnel number falls below certain limits.</td>
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<tr>
<td>Statistically Significant</td>
<td>Highly unlikely to be due to random chance alone.</td>
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<tr>
<td>Strict Scrutiny</td>
<td>Highest level of federal judicial review to determine whether certain governmental policies are constitutional.</td>
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<td>Subcontractor</td>
<td>A vendor or contractor providing goods or services to a prime contractor or vendor under contract with City.</td>
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<td>Utilization</td>
<td>Examines payments made to firms in the Dayton market area for each business category. The measures are presented as dollars, a percentage of dollars, as well as the number and percentage of firms utilized by racial, ethnic, and gender classification.</td>
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<tr>
<td>WBE</td>
<td>An acronym for Women Business Enterprise. A business at least 51% owned and operated by one or more non-minority females.</td>
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CHAPTER 2. LEGAL FRAMEWORK

2019 Third Generation Disparity Study

City of Dayton

MGT
CONSULTING GROUP
2.1 INTRODUCTION

This chapter discusses the legal framework applying to government affirmative-action programs involving governmental procurement of goods or services. It examines relevant judicial decisions, particularly from the U.S. Supreme Court and the Sixth Circuit, which includes the Dayton area. Those decisions from the U.S. Supreme Court and the Sixth Circuit offer the most directly binding authority, but where those decisions leave issues unsettled, the review considers decisions from other circuits.

The Supreme Court, in City of Richmond v. J.A. Croson Company (Croson)\(^2\) and subsequent cases, has established and construed constitutional standards for government-contracting affirmative-action programs. This chapter identifies and analyzes those decisions, summarizing how courts evaluate the constitutionality of race-specific and gender-specific programs.

Race-conscious affirmative-action programs are subject to a judicial test of strict scrutiny under the Equal Protection Clause of the Fourteenth Amendment to the U.S. Constitution. To survive a constitutional challenge under a strict scrutiny standard, a race-conscious governmental procurement program must be (1) justified by a compelling governmental interest in remedying identified discrimination or the present effects of past discrimination in the marketplace; and (2) narrowly tailored to remedy that discrimination.

In applying this strict scrutiny framework to race-conscious governmental procurement programs, courts have focused on the following key principles and standards:

- A remedial race-conscious program must be based on a compelling government interest.
  - “Compelling interest” means the government must prove past or present racial discrimination requiring remedial attention.
  - There must be a specific “strong basis in the evidence” for the compelling governmental interest.
  - Statistical evidence is preferred, and possibly necessary, as a practical matter. Anecdotal evidence is permissible and can offer substantial support, but likely insufficient on its own.

- A race-conscious program designed to address the compelling governmental interest must also be narrowly tailored to remedy the identified discrimination.
  - “Narrow tailoring” means the remedy must fit the findings.

The evidence showing compelling interest must guide the tailoring very closely.

Race-neutral alternatives must be considered first.

A lesser standard, intermediate judicial scrutiny, applies to programs that establish gender preferences. To survive the intermediate scrutiny standard, a remedial gender-conscious program must (1) serve important governmental objectives and (2) be substantially related to the achievement of those objectives.

This chapter will also discuss the legal standards that apply to federal Disadvantaged Business Enterprise (DBE) Programs and small-business procurement programs.

### 2.2 STANDARDS OF REVIEW FOR RACE-CONSCIOUS AND GENDER-CONSCIOUS PROGRAMS

#### 2.2.1 RACE-CONSCIOUS PROGRAMS

##### 2.2.1.1 THE CROSON DECISION

The United States Supreme Court Croson decision established the framework for evaluating the constitutionality of affirmative-action government procurement programs designed to counteract racial discrimination. In that case, the Court found that race-conscious affirmative action procurement programs are subject to strict scrutiny under the Equal Protection Clause, and that the Minority Business Utilization Plan (the “Plan”) adopted by the Richmond City Council could not survive such strict scrutiny.

The Richmond City Council established the Plan in 1983 following a public hearing in which seven citizens testified about historical societal discrimination. In adopting the Plan, the council also relied on a study indicating that “while the general population of Richmond was 50 percent African American, only 0.67 percent of the city’s prime construction contracts had been awarded to minority businesses in the five-year period from 1978 to 1983.” The evidence before the council also established that a variety of state and local contractor associations had little or no minority business membership. The council relied on a council member’s statement that “the general conduct of the construction industry in this area, the state, and around the nation, is one in which race discrimination and exclusion on the basis of race is widespread.”

There was, however, no direct evidence of race discrimination by the city in its contracting activities and no evidence that the city’s prime contractors had discriminated against minority-owned subcontractors.

The Plan required the city’s prime contractors to subcontract at least 30 percent of the dollar amount of each contract to one or more minority-owned business enterprises (MBEs). The Plan did not establish any geographic limits for eligibility. Therefore, an otherwise qualified MBE from anywhere in the United States could benefit from the 30 percent set-aside.

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3 Id. at 479-80.
4 Id. at 480.
5 Id.
J. A. Croson Company, a non-MBE mechanical, plumbing, and heating contractor, filed a lawsuit against the City of Richmond alleging that the Plan was unconstitutional because it violated the Equal Protection Clause of the Fourteenth Amendment. On appeal, the Fourth Circuit struck down the Richmond Plan and the U.S. Supreme Court affirmed. The Supreme Court determined that strict scrutiny was the appropriate standard of judicial review for state and local MBE procurement programs. Under this standard, a race-conscious program (1) must be based on a compelling governmental interest and (2) be narrowly tailored to achieve its objectives. A plurality of the Court stated that this standard requires a “firm evidentiary basis” for concluding that the underutilization of minorities is a product of past discrimination.

Under the first prong of this standard, the Court found that “none of the evidence presented by the city points to any identified discrimination in the Richmond construction industry,” and therefore the city had “failed to demonstrate a compelling interest in apportioning public contracting opportunities on the basis of race.” The “compelling interest” standard will be discussed in more detail in Section 2.3 below.

As to the second prong, the Court found that it was “almost impossible” to determine whether the Plan was “narrowly tailored to remedy prior discrimination since it [was] not linked to identified discrimination in any way.” The Court went on to discuss factors that could show a program is appropriately narrowly tailored, such as a consideration of race-neutral means to increase minority participation in contracting and a lack of “rigid numerical quota[s].” The “narrow tailoring” standard will be discussed in more detail in Section 2.4 below.

While the Richmond plan was struck down as unconstitutional, the Court concluded that its decision would not “preclude a state or local entity from taking action to rectify the effects of identified discrimination within its jurisdiction.” The plurality stated that “[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.” A discussion of statistical studies that have formed the basis for successful defenses of M/WBE programs is including at Section 2.3 below.

2.2.2 GENDER-CONSCIOUS PROGRAMS

While Croson evaluated the constitutionality of an MBE program, the Supreme Court has not specifically addressed the constitutionality of a gender-based classification in the context of a Women-Owned Business Enterprise (WBE) Program. In evaluating gender-based classifications in other contexts, the court has applied what some term “intermediate scrutiny,” a less stringent standard of review than the “strict scrutiny” applied to race-based classifications. Intermediate scrutiny requires that programs classifying persons on the basis of gender “must carry the burden of showing an exceedingly persuasive justification.

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6 Id. at 511.
7 Id. at 505, 507.
8 Croson, 488 U.S. at 493.
9 Id. at 505.
10 Id. at 507.
11 Id.
12 Id. at 509.
13 Id.
for the classification.”\(^\text{14}\) In order to meet this burden, the proponent of the classification must show (1) “that the classification serves important governmental objectives” and (2) “that the discriminatory means employed are substantially related to the achievement of those objectives.”\(^\text{15}\)

Courts have uniformly applied intermediate scrutiny to WBE programs. In *Coral Construction v. King County* (*Coral Construction*), for example, the Ninth Circuit upheld a WBE program under the intermediate scrutiny standard at the same time that it remanded for further factual development on a similar race-conscious program under the strict scrutiny standard.\(^\text{16}\) In that case, the court held that under intermediate scrutiny, “a gender-based classification must serve an important governmental objective, and there must be a direct, substantial relationship between the objective and the means chosen to accomplish the objective.”\(^\text{17}\) To that end, the court found that some degree of discrimination must be demonstrated in a particular industry before a gender-specific remedy may be applied and that “[t]he mere recitation of a benign, compensatory purpose will not automatically shield a gender-specific program from constitutional scrutiny.”\(^\text{18}\) Accordingly, many courts have held gender-conscious programs unconstitutional under the intermediate scrutiny standard when the record does not include sufficient evidence that remedial action was necessary.\(^\text{19}\)

Given that there has not been a Supreme Court case interpreting intermediate scrutiny in the context of WBE procurement preferences, it is unclear exactly how much easier it is as a practical matter to establish and defend a WBE program than an MBE program. In *Coral Construction*, the Ninth Circuit held that “intermediate scrutiny does not require any showing of governmental involvement, active or passive, in the discrimination it seeks to remedy.”\(^\text{20}\) Other courts, however, have not provided a significant distinction between the evidence required to uphold a WBE program and that required to uphold a MBE program.\(^\text{21}\) The Tenth Circuit, on the second appeal in *Concrete Works of Colorado v. City and County of Denver* (*Concrete Works IV*), stated in dicta that while the Ninth and Eleventh Circuits have held WBE programs could be constitutional even without evidence of governmental involvement in gender discrimination, it did not need to resolve the issue because the WBE program at issue would also survive the strict scrutiny standard.\(^\text{22}\) The Fifth Circuit declined to address the intermediate scrutiny standard required for gender-based preferences in a case where the parties focused the inquiry on racial preferences.\(^\text{23}\)

### 2.2.3 AN OVERVIEW OF THE APPLICABLE CASE LAW

Before wading into the case law, a few other general legal standards should be noted. First, affirmative

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\(^{16}\) 941 F.2d 910 (9th Cir. 1991).

\(^{17}\) Id. at 931.

\(^{18}\) Id. at 932.


\(^{20}\) 941 F.2d at 932.

\(^{21}\) See, e.g., *Builders Ass’n of Greater Chicago v. Cnty. of Cook*, 256 F.3d 642 (7th Cir. 2001); *W. States Paving Co., Inc. v. Washington State Dept. of Transp.*, 407 F.3d 983, 991 n.6 (9th Cir. 2005).

\(^{22}\) 321 F.3d 950 (10th Cir. 2003).

\(^{23}\) *W. H. Scott Const. Co.*, 199 F.3d at 215 n.9.
action programs involving government contracting are distinct from affirmative action programs in other areas, such as education. Justice O’Connor, distinguishing her majority opinion on affirmative action in law school admissions from her opinions in government contracting cases, stated:

context matters when reviewing race-based governmental action under the equal protection clause . . . . Not every decision influenced by race is equally objectionable and strict scrutiny is designed to provide a framework for carefully examining the importance and the sincerity of the reasons advanced by the governmental decision-maker for the use of race in that particular context. 24

Second, the nature of federal district courts—which make both findings of fact and conclusions of law—should be recalled when reviewing district court opinions. District courts must follow precedent from higher courts, including the circuit court in which they sit and the U.S. Supreme Court, when they make conclusions of law. When deciding factual issues, however, district courts are bound by the precise record before them, so considerations like the credibility and expertise of witnesses are important. Such factual findings are not binding precedents, even if they may suggest the kind of evidence and arguments that might succeed elsewhere.

Thus, most of this review is based on federal circuit court decisions applying Croson to city or county programs designed to increase participation by M/WBEs in government contracting. That is not a large body of case law. Ultimately, only two circuit court decisions since Croson have thoroughly evaluated local disparity studies and determined whether they fulfill the two prongs of the strict scrutiny standard: 

Engineering Contractors Association of South Florida, Inc. v. Metro. Dade County (Engineering Contractors)25 and Concrete Works IV.26 In Engineering Contractors, the Eleventh Circuit upheld the district court’s finding that Dade County’s disparity studies were inadequate to support an M/WBE program.27 By contrast, in Concrete Works IV, the Tenth Circuit, after holding that the district court had used an improper standard for weighing the evidence, went on to evaluate the evidence and determined that it was adequate as a matter of law to establish a compelling justification for Denver’s program. The Supreme Court declined to hear the appeal in Concrete Works IV,28 although the refusal has no precedential effect. The dissent to that denial, written by Justice Scalia with the Chief Justice joining, argues that these cases may mark a split in approach among the circuits that will need to be reconciled.29

25 122 F.3d 895.
26 321 F.3d 950. The Third Circuit decided an additional case on the basis of the narrow tailoring prong but declined to issue a decision on the compelling interest prong. Contractors Ass’n of E. Pennsylvania v. City of Philadelphia, 91 F. 3d 586, 605 (3rd Cir. 1996).
27 Cf. Cone Corp. v. Hillsborough Cnty., 908 F.2d 908 (11th Cir. 1990) (reversing summary judgment against an MBE program where more limited statistical evidence was found adequate to require a trial on the merits in the face of a relatively weak challenge).
29 Id.
2.3 To Withstand Strict Scrutiny, an MBE Program Must Be Based on Thorough Evidence Showing a Compelling Governmental Interest

Courts have recognized only one compelling government interest to be sufficient to support race-conscious procurement programs: remedying discrimination in the relevant marketplace. As the Eleventh Circuit stated in Engineering Contractors:

In practice, the interest that is alleged in support of racial preferences is almost always the same—remedying past or present discrimination. That interest is widely accepted as compelling. As a result, the true test of an affirmative action program is usually not the nature of the government’s interest, but rather the adequacy of the evidence of discrimination offered to show that interest. If a race- or ethnicity-conscious affirmative action program is to be upheld, the district court must make a factual determination that [there exists] a strong basis in evidence to support the conclusion that remedial action is necessary.31

Thus, the relevant question for this inquiry is: what evidence of discrimination is sufficient to withstand a strict scrutiny standard? Croson identified two necessary factors that would show the existence of a compelling interest in remedying racial discrimination. First, there needs to be evidence that actual, identifiable discrimination has occurred within the local industry affected by the program.32 Second, “the governmental actor enacting the set-aside program must have somehow perpetuated the discrimination to be remedied by the program,” either actively or at least passively through the “infusion of tax dollars into a discriminatory industry.”33 We will look at each of these factors in turn.

2.3.1 Evidence of Discrimination in the Relevant Market

In Croson, the Supreme Court stated that “where gross statistical disparities can be shown, they alone in a proper case may constitute prima facie proof of a pattern or practice of discrimination.”34 The Court stressed, however, that these statistics must go well beyond comparing the rate of minority presence in the general population to the rate of prime construction contracts awarded to MBEs. Instead, the Court indicated that the proper statistical evaluation would compare the percentage of qualified MBEs in the relevant market with the percentage of total municipal construction dollars awarded to them.35 Such statistical measures of disparity are commonly referred to as “disparity indices. Following Croson, courts

30 As discussed above, strict scrutiny applies to race-conscious programs and intermediate scrutiny applies to gender-conscious programs. This section refers to M/WBE programs, because
31 122 F.3d 895, 906 (11th Cir. 1997) (quoting Ensley Branch, NAACP v. Seibels, 31 F.3d 1548, 1564 (11th Cir. 1994)) (citations and internal quotation marks omitted)).
32 Croson, 488 U.S. at 492, 509-10.
33 Coral Constr., 941 F.2d at 916 (“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 evil of private prejudice.” (quoting Croson, 488 U.S. at 492)).
35 Id.
throughout the country have accepted properly calculated disparity indices in the relevant market as sufficient evidence of discrimination.\textsuperscript{36}

The Fifth Circuit considered what evidence would suffice to show discrimination in the relevant market in \textit{W.H. Scott Construction Co.}.\textsuperscript{37} The court noted that “other courts considering equal protection challenges to minority-participation programs have looked to disparity indices, or to computation of disparity percentages, in determining whether \textit{Croson’s} evidentiary burden is satisfied.”\textsuperscript{38} At the same time, the Fifth Circuit stated that it was not attempting to “craft a precise mathematical formula to assess the quantum of evidence that rises to the \textit{Croson} ‘strong basis in evidence’ benchmark.”\textsuperscript{39}

Although there is no one method that must be used in order to craft a defensible race-conscious procurement program, courts have tended to consider the following factors in analyzing whether the evidence of discrimination in a market is sufficient to support such a program: (1) the availability of qualified minority contractors; (2) the specific racial groups that have been shown to experience said discrimination; (3) the relevant geographic market area; (4) whether the identified minority firms are qualified to provide the required services; (5) whether the identified minority firms are willing to provide the required services; (6) whether the identified minority firms have the capacity to provide the required services; (7) whether the data showing discrimination is statistically sufficient; (8) any anecdotal evidence of discrimination; and (9) the quality of the data. The below subsections discuss each of these issues in turn.

\subsection*{2.3.1.1 DETERMINING AVAILABILITY}

To perform a proper disparity analysis, the government must determine “availability,” or the number of qualified minority contractors willing and able to perform a particular service for the municipality. In \textit{Croson}, the Court stated, “[w]here there is a significant statistical disparity between the number of qualified minority contractors \textit{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.”\textsuperscript{40}

\begin{quote}
In upholding the rejection of the State of Ohio MBE program the Sixth Circuit stated that “although Ohio’s most compelling statistical evidence compares the percentage of contracts awarded to minorities to the percentage of minority-owned businesses…the problem is that the percentage of minority-owned businesses in Ohio (7% of 1978) did not take into account which were construction firms and those who were qualified, willing and able to perform on state construction contracts.”\textsuperscript{41}
\end{quote}

An accurate determination of availability also permits the government to meet the requirement that it “determine the precise scope of the injury it seeks to remedy” by its program.\textsuperscript{42} Following \textit{Croson’s} guidance on availability, lower courts have considered how legislative bodies may determine the scope of

\begin{thebibliography}{99}
\item See, e.g., \textit{Eng’g Contractors Ass’n of S. Florida}, 122 F.3d at 914; \textit{Concrete Works IV}, 321 F.3d at 964-69.
\item \textit{W.H. Scott Construction Co.}, 199 F.3d 206.
\item Id. at 218.
\item Id. at 218 n.11.
\item 488 U.S. at 509 (emphasis added).
\item \textit{Associated General Contractors v. Drabik}, 214 F.3d 730, 736 (6th Circuit 2000).
\item Id. at 498.
\end{thebibliography}
the injury sought to be remedied by an MBE program. Federal courts have not prescribed precisely what data sources or techniques must be used to measure M/WBE availability. However, courts have rejected studies where the methods used to measure availability were considered insufficient. For instance, in W.H. Scott Construction Co., the Fifth Circuit rejected a study that “was restricted to the letting of prime contracts by the City under the City’s Program; [and which] did not include an analysis of the availability and utilization of qualified minority subcontractors, the relevant statistical pool, in the City’s construction projects.”

Courts have permitted the use of census data to measure availability. Census data has the benefit of being accessible, comprehensive, and objective in measuring availability. In Contractors Association of Eastern Pennsylvania, Inc. v. City of Philadelphia, the Third Circuit acknowledged some of the limitations of census data, but nonetheless stated that such data could appropriately be used in disparity studies. In that case, the city’s consultant calculated a disparity using data showing the total amount of contract dollars awarded by the city, the amount that went to MBEs, and the number of African American construction firms. The consultant combined this data with data from the Census Bureau on the number of construction firms in the Philadelphia Standard Metropolitan Statistical Area. Although the Third Circuit declined to rule on the compelling interest prong, the court’s discussion of the data sources indicated that it may be inclined to accept such data sources.

Another potential data source that could be used to determine minority firm availability is the agency’s bidder data. However, as pointed out in the National Cooperative Highway Research Program’s Report 644, the bidder list approach has several drawbacks, including the fact that minority firms are likely to be underrepresented in such lists because of current and past discrimination. Further, Croson does not require the use of bidder data to determine availability. In Concrete Works IV, in the context of the plaintiff’s complaint that the City of Denver had not used such information, the Tenth Circuit rejected the plaintiff’s claim that the availability data was unreliable because it was not based on the city’s bidder data. As the court noted, the usefulness of bid information is limited, since some firms that bid may not be qualified or able to undertake agency contracts, whereas other firms that do not bid may be qualified and able to do so.

2.3.2 RACIAL CLASSIFICATIONS

In determining availability, classifying the included racial groups is an important threshold issue. In Croson, the Supreme Court criticized the City of Richmond’s inclusion of “Spanish-speaking, Oriental, 43 199 F.3d at 218.
44 91 F.3d at 605.
45 Id.
46 Id.
49 488 U.S. at 502.
50 321 F.3d at 983-84.
51 Id.
52 As the term is used herein, “racial groups” include both racial and ethnic categories.
Indian, Eskimo, or Aleut persons” in its affirmative-action program.\textsuperscript{53} These groups had not previously participated in city contracting, and “the random inclusion of racial groups that, as a practical matter, may never have suffered from discrimination in the construction industry in Richmond suggests that perhaps the City’s purpose was not in fact to remedy past discrimination.”\textsuperscript{54} To evaluate availability properly, data must be gathered for each racial group in the marketplace. The Federal Circuit has also required that evidence as to the inclusion of particular groups be kept reasonably current.\textsuperscript{55}

### 2.3.3 RELEVANT MARKET AREA

Another issue in availability analysis is defining the relevant geographic market area. The relevant market area can be defined as the area from which a specific percentage of purchases are made, the area in which a specific percentage of willing and able contractors may be located, or the area determined by a fixed geopolitical boundary.

The Supreme Court has not specifically established how the relevant market area should be defined, but some circuit courts have done so, including the Tenth Circuit in \textit{Concrete Works II}.\textsuperscript{56} In that case, a non-M/WBE construction company argued that, under \textit{Crosen}, Denver’s affirmative action program could only rely on data from within the City and County of Denver—not from the larger six-county Denver Metropolitan Statistical Area (MSA). The Tenth Circuit disagreed, holding “[t]he relevant area in which to measure discrimination, then, is the local construction market, but that is not necessarily confined by jurisdictional boundaries.”\textsuperscript{57} The court further stated that “[i]t is important that the pertinent data closely relate to the jurisdictional area of the municipality whose program we scrutinize, but here Denver’s contracting activity, insofar as construction work is concerned, is closely related to the Denver MSA.”\textsuperscript{58} Because more than 80 percent of Denver Department of Public Works construction and design contracts were awarded to firms located within the Denver MSA, the Tenth Circuit held that the appropriate market area was the Denver MSA, not the City and County of Denver alone.\textsuperscript{59} Accordingly, data from the Denver MSA was “adequately particularized for strict scrutiny purposes.”\textsuperscript{60}

### 2.3.4 FIRM QUALIFICATIONS

Another consideration is whether the identified minority-owned firms in the relevant market are qualified to perform the required services. In \textit{Crosen}, the Supreme Court noted that although gross statistical disparities may demonstrate prima facie proof of discrimination, “when special qualifications are required to fill particular jobs, comparisons to the general population (rather than to the smaller group of individuals who possess the necessary qualifications) may have little probative value.”\textsuperscript{61} The Court, however, did not define a specific test for determining whether a firm is qualified.

\textsuperscript{53} 488 U.S. at 506.
\textsuperscript{54} Id.
\textsuperscript{55} \textit{Rothe Dev. Corp. v. U.S. Dep’t of Def.}, 262 F.3d 1306, 1323 (Fed. Cir. 2001); see also \textit{Rothe Dev. Corp. v. U.S. Dep’t of Def.}, 545 F.3d 1023, 1039 (Fed. Cir. 2008).
\textsuperscript{56} \textit{Concrete Works of Colorado, Inc. v. City and Cnty. of Denver}, 36 F.3d 1513, 1520 (10th Cir. 1994).
\textsuperscript{57} Id.
\textsuperscript{58} Id.
\textsuperscript{59} Id.
\textsuperscript{60} Id.
Considering firm qualifications is important not only to assess whether minority firms in the relevant market area can provide the goods and services required, but also to ensure proper comparison between the number of qualified minority-owned firms and the total number of similarly qualified contractors in the marketplace. In short, proper comparisons ensure the required integrity and specificity of the statistical analysis. For instance, the Fifth Circuit held that the government must examine prime contractors and subcontractors separately when the M/WBE program is aimed primarily at one or the other.

### 2.3.5 WILLINGNESS

*Croson* requires that an “available” firm be not only qualified but also “willing” to provide the required services. Willingness can be difficult to measure. Courts have approved the inclusion of businesses in the availability pool that may not be on the government’s certification list. In *Concrete Works II*, Denver’s availability analysis indicated that while most MBEs and WBEs had never participated in city contracts, “almost all firms contacted indicated that they were interested in municipal work.” In *Contractors Association of Eastern Pennsylvania, Inc.* the Third Circuit posited, “one can normally assume that participants in a market with the ability to undertake gainful work will be ‘willing’ to undertake it.” The court went on to note:

> Past discrimination in a marketplace may provide reason to believe the minorities who would otherwise be willing are discouraged from trying to secure the work . . . . [I]f there has been discrimination in City contracting, it is to be expected that black firms may be discouraged from applying, and the low numbers [of African American owned firms seeking to prequalify for city-funded contracts] may tend to corroborate the existence of discrimination rather than belie it.

Thus, including information about the willingness of M/WBEs to perform the required services strengthens a disparity study.

### 2.3.6 ABILITY/CAPACITY

Another availability consideration is whether the firms being considered are able to perform a particular service. Those who challenge affirmative action often question whether M/WBE firms have the “capacity” to perform particular services.

In *Eng’g Contractors*, the Eleventh Circuit held that the district court did not err in finding that firm size, rather than discrimination, was the cause of the disparity in the utilization of minority owned firms. The district court had based this conclusion on the fact that firm size has a strong impact on ability to enter into contracts, and minority owned firms tend to be smaller than non-minority owned firms. Business

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62 See Contractors Ass’n of E. Pennsylvania, 91 F.3d at 603.
64 *Concrete Works II*, 36 F.3d at 1529.
65 91 F.3d at 603.
66 Id. at 603-04.
67 122 F.3d at 918.
68 Id.
capacity was also considered by the Federal Circuit in *Rothe Development Corp v. Department of Defense*, which involved the federal Small Disadvantaged Business (SDB) Program. The *Rothe* decision criticized elements of factual predicate studies used to support the Section 1207 Program that did not adequately consider the size and capacity of firms in evaluating disparity.69 Further, in *Eng’g Contractors*, the Eleventh Circuit held that the district court had not erred when it found that the disparities were better explained by firm size than by discrimination.70

By contrast, the Tenth Circuit in *Concrete Works II and IV* recognized the shortcomings of this treatment of firm size.71 In *Concrete Works IV*, the court noted that the small size of such firms can itself be a result of discrimination.72 The Tenth Circuit acknowledged the City of Denver’s argument that a small construction firm’s precise capacity can be highly elastic.73 Under this view, a consideration of firm size is less relevant to an availability analysis.

### 2.3.7 STATISTICAL SUFFICIENCY

While courts have indicated that anecdotal evidence may suffice without statistical evidence, no case without statistical evidence has been given serious consideration by any circuit court. In practical effect, courts require statistical evidence. Further, the statistical evidence needs to be held to appropriate professional standards.74 The Eighth Circuit has stated that “numbers must be statistically significant before one can properly conclude that any apparent racial disparity results from some factor other than random chance.”75 The Eleventh Circuit has addressed the role of statistical significance in assessing levels of disparity in public contracting. Generally, disparity indices of 80 percent or higher—indicating close to full participation—are not considered significant.76 The court referenced the Equal Employment Opportunity Commission’s disparate impact guidelines, which establish the 80 percent test as the threshold for determining a *prima facie* case of discrimination.77 According to the Eleventh Circuit, no circuit that has explicitly endorsed using disparity indices has held that an index of 80 percent or greater is probative of discrimination, but they have held that indices below 80 percent indicate “significant disparities.”78

In support of the use of standard deviation analyses to test the statistical significance of disparity indices, the Eleventh Circuit observed that “[s]ocial scientists consider a finding of two standard deviations significant, meaning there is about one chance in 20 that the explanation for the deviation could be random and the deviation must be accounted for by some factor other than chance.”79 With standard

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69 *Rothe Dev. Corp. v. Dep’t of Def.*, 545 F.3d 1023, 1043-44 (Fed. Cir. 2008).
70 122 F.3d at 918-19.
71 *Concrete Works II*, 36 F.3d at 1528-29; *Concrete Works IV*, 321 F.3d at 980-82.
72 321 F.3d at 980-84.
73 Id. at 981.
74 See *Contrs. Ass’n of E. Pennsylvania, Inc.*, 91 F.3d at 599-601.
75 *Kohibeck v. Omaha*, 447 F.3d 552, 557 (8th Cir. 2006) (quoting *Aiken v. Memphis*, 37 F.3d 1155 (6th Cir. 1994)).
76 *Eng’g Contrs. Ass’n of S. Florida, Inc.*, 122 F.3d at 914.
77 Id. at 914, citing 29 C.F.R. § 1607.4D (concerning the disparate impact guidelines and threshold used in employment cases).
78 122 F.3d at 914 quoting *Peightal v. Metropolitan Dade County*, 6 F.3d at 1005 (crediting disparity index of 4 percent) and *Concrete Works II*, 36 F.3d at 1524 (crediting disparity indices ranging from 0 percent to 3.8 percent).
79 *Eng’g Contrs. Ass’n of S. Florida, Inc.*, 122 F.3d at 914 quoting *Waisome v. Port Authority*, 948 F.2d 1370, 1376 (2nd Cir. 1991)).
deviation analyses, the reviewer can determine whether the disparities are substantial or statistically
significant, lending further statistical support to a finding of discrimination. On the other hand, if such
analyses can account for the apparent disparity, the study will have little if any weight as evidence of
discrimination.

Further, the interpretations of the studies must not assume discrimination has caused the disparities, but
must account for alternative explanations of the statistical patterns.80 The Third and Fifth Circuits have
also indicated that statistics about prime contracting disparity have little, if any, weight when the eventual
M/WBE program offers its remedies solely to subcontractors.81 In Engineering Contractors there was
a separate analysis of prime contracting and subcontracting.82

2.3.8 ANECDOTAL EVIDENCE

Most disparity studies present anecdotal evidence along with statistical data. The Supreme Court in
Croson discussed the relevance of anecdotal evidence and explained: “[E]vidence of a pattern of individual
discriminatory acts can, if supported by appropriate statistical proof, lend support to a local government’s
determination that broader remedial relief is justified.”83

In Engineering Contractors, the County presented testimony from M/WBE program staff, affidavits from
23 M/WBEs and a survey of Black-owned firms. The Eleventh Circuit acknowledged that the “picture
painted by the anecdotal evidence [was] not a good one.”84 However, the Eleventh Circuit had a limited
discussion of the requirements for anecdotal evidence because the statistical evidence was weak and the
Court noted that “only in the rare case will anecdotal evidence suffice standing alone.”85

Although Croson did not expressly consider the form or level of specificity required for anecdotal
evidence, the Ninth Circuit has addressed both issues. In Coral Construction, the Ninth Circuit addressed
the use of anecdotal evidence alone to prove discrimination. Although King County’s anecdotal evidence
was extensive, the court noted the absence in the record of any statistical data in support of the program.
Additionally, the court stated, “While anecdotal evidence may suffice to prove individual claims of
discrimination, rarely, if ever, can such evidence show a systemic pattern of discrimination necessary for

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80 Eng’g Contrs. Ass’n of S. Florida, Inc., 122 F. 3d at 895.
81 Contrs. Ass’n of E. Pennsylvania, Inc., 91 F.3d at 599 (3rd Cir.); W.H. Schott Constr. Co., 199 F. 3d at 218 (5th Cir.)
82 Eng’g Contrs. Ass’n of S. Florida, Inc., 122 F.3d 895, 920.
83 Croson, 488 U.S. at 509.
84 Eng’g Contrs. Ass’n of S. Florida, Inc., 122 F.3d at 925.
85 Id.
the adoption of an affirmative action plan.” The court concluded, by contrast, that “the combination of convincing anecdotal and statistical evidence is potent.”

Regarding the appropriate form of anecdotal evidence, the Ninth Circuit in *Coral Construction* noted that the record provided by King County was “considerably more extensive than that compiled by the Richmond City Council in *Croson*.” The King County record contained “affidavits of at least 57 minority or [female] contractors, each of whom complain[ed] in varying degree[s] of specificity about discrimination within the local construction industry.” The *Coral Construction* court stated that the M/WBE affidavits “reflect[ed] a broad spectrum of the contracting community” and the affidavits “certainly suggest[ed] that ongoing discrimination may be occurring in much of the King County business community.”

In *Associated General Contractors of California v. Coalition for Economic Equity (AGCC II)*, the Ninth Circuit discussed the specificity of anecdotal evidence required by *Croson*. Seeking a preliminary injunction, the contractors contended that the evidence presented by the city of San Francisco lacked the specificity required by both an earlier appeal in that case and by *Croson*. The court held that the City’s findings were based on substantially more evidence than the anecdotes in the two prior cases, and “were clearly based upon dozens of specific instances of discrimination that are laid out with particularity in the record, as well as significant statistical disparities in the award of contracts.”

The court also ruled that the City was under no burden to identify specific practices or policies that were discriminatory. Reiterating the City’s perspective, the court stated that the City “must simply demonstrate the existence of past discrimination with specificity; there is no requirement that the legislative findings specifically detail each and every instance that the legislative body ha[d] relied upon in support of its decision that affirmative action is necessary.” Not only have courts found that a municipality does not have to specifically identify all the discriminatory practices impeding M/WBE utilization, but the Tenth Circuit in *Concrete Works IV* also held that anecdotal evidence collected by a municipality does not have to be verified.

### 2.3.9 QUALITY OF DATA

Courts also evaluate the dependability of the underlying data introduced to support race-conscious procurement programs. For instance, courts have considered the volume of data, how current it is, and how much data must be reviewed in order to satisfy strict scrutiny. Although there is not a strict requirement as to how many years must be included in a study (*i.e.*, the data time range), some courts caution against relying on small sample sizes. With regard to the age of data, in *Rothe*, a federal appeals court held that anecdotal evidence collected by a municipality does not have to be verified.

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86 *Coral Construction*, 941 F.2d at 919 (emphasis added).
87 Id. See also *AGCC II*, 950 F.2d at 1414-1415.
88 *Coral Construction*, 941 F.2d at 917.
89 Id. at 917-18.
90 Id.
91 *AGCC II*, 950 F.2d at 1414-1415.
92 Id. at 1403-1405.
93 Id. at 1416. This evidence came from 10 public hearings and “numerous written submissions from the public.” Id. at 1414.
94 Id. at 1416, n.11.
95 Id. at 1416.
court held that disparity studies with 2003 data could support reenacting a federal program in 2006. Agencies could rely on the most current available data, noting other circuit court decisions involving “studies containing data more than five years old when conducting compelling interest analyses.”

### 2.3.10 CONNECTION BETWEEN AGENCY AND PUBLIC OR PRIVATE DISCRIMINATION

As part of the compelling-interest analysis, courts require showing a connection between the government or agency and the public or private discrimination. In *Croson*, the Supreme Court stated that “[i]t 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 evil of private prejudice.” *Croson* provided that the government “can use its spending powers to remedy private discrimination, if it identifies that discrimination with the particularity required by the Fourteenth Amendment.” The government agency’s active or passive participation in discriminatory practices in the marketplace may give rise to a compelling interest. Defining passive participation, *Croson* stated that “if the city could show that it had essentially become a ‘passive participant’ in a system of racial exclusion practiced by elements of the local construction industry, we think it clear that the city could take affirmative steps to dismantle such a system.”

Many cases following *Croson* have affirmed that the government has a compelling interest in avoiding the financing of private discrimination with public dollars. In *Concrete Works IV*, for example, the Tenth Circuit held that the City of Denver could “establish its compelling interest by presenting evidence of its own direct participation in racial discrimination or its passive participation in private discrimination.” The court found that barriers to business formation in the private sector were relevant to the passive participation determination if the evidence demonstrated that M/WBEs were “precluded from the outset from competing for public construction contracts.” That court also found a regression analysis of census data to be relevant evidence showing barriers to M/WBE formation. Further, the court expressly cited the fact that M/WBE subcontractors used by prime contractors on City of Denver projects were not used by the same prime contractors for private-sector contracts as evidence of discrimination. Similarly, the Tenth Circuit in its *Adarand* decision found that evidence of capital-market discrimination was relevant to establishing the factual predicate for the federal DBE program. Finally, a district court upheld North

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97 Rothe Dev. Corp. v. U.S. Dep’t of Def., 545 F.3d 1023, 1039 (Fed. Cir. 2008).
98 Id. (citing district court’s discussion of staleness in W. States Paving Co., 407 F.3d at 992 and Sherbrooke Turf, Inc. v. Minn. Dep’t of Transp., 345 F.3d 964, 970 (8th Cir. 2003)).
99 Coral Constr., 941 F.2d at 922 (citing *Croson*, 488 U.S. at 492) (emphasis added).
101 488 U.S. at 492.
103 *Concrete Works IV*, 321 F.3d at 958 (emphasis added).
104 Id. at 977. The district court rejected evidence of credit-market discrimination as adequate to provide a factual predicate for an M/WBE program. *Concrete Works v. City and Cnty. of Denver*, 86 F. Supp. 2d 1042 (D. Colo. 2000) (*Concrete Works I*).
105 *Concrete Works IV*, 321 F.3d at 977.
106 Id. at 984-85.
107 *Adarand v. Slater*, 228 F.3d at 1169-70 (10th Cir. 2000).
Carolina’s M/WBE Program in road construction based largely on similar private-sector evidence supplemented by evidence from databases covering private-sector commercial construction.\(^\text{108}\)

Courts have found evidence of private discrimination insufficient in other cases, however.\(^\text{109}\) The Third Circuit found that evidence of discrimination by local trade associations did not indicate that the City of Philadelphia was a passive participant in discrimination, since trade association membership was not required to bid on city contracts.\(^\text{110}\) In *Engineering Contractors*, the Eleventh Circuit considered a study comparing entry rates into the construction business for M/WBEs and non-M/WBEs.\(^\text{111}\) The analysis provided statistically significant evidence that minorities and women entered the construction business at rates lower than would be otherwise expected, even after the application of appropriate statistical controls. The Eleventh Circuit found that the district court did not err in finding that the study did not constitute sufficient evidence to support an M/WBE program.\(^\text{112}\)

The ruling in *Builders Association of Greater Chicago v. County of Cook* suggests that the Seventh Circuit may have a higher bar than other circuits for connecting private discrimination with government action. The trial court in that case relied on evidence that prime contractors simply did not solicit M/WBEs as subcontractors for private sector projects.\(^\text{113}\) The Seventh Circuit held that this evidence was largely irrelevant.\(^\text{114}\) The court reasoned that evidence that contractors failed to solicit M/WBEs was not the same as evidence that M/WBEs were denied the opportunity to bid.\(^\text{115}\) Furthermore, the court found that the county was not a passive participant in the prime contractors’ potential discrimination because there was no evidence the county was aware of any such discriminatory actions.\(^\text{116}\)

Finally, evidence of a decline in M/WBE utilization following a change in or termination of an M/WBE program may establish relevant and persuasive evidence of discrimination. The Eighth Circuit in *Sherbrooke Turf*\(^\text{117}\) and the Tenth Circuit in *Concrete Works IV*\(^\text{118}\) both found that such declines in M/WBE utilization was evidence that prime contractors were not willing to use M/WBEs in the absence of legal requirements. Other lower courts have arrived at similar conclusions.\(^\text{119}\)

\(^{108}\) H.B. Rowe, Inc. v. Tippett, 589 F.Supp.2d 587 (E.D.N.C. 2008). The Fourth Circuit subsequently found that the program was unconstitutional as applied to women, since WBEs were significantly over-utilized by the governmental actor during the study period. 615 F.3d 233, 255-56 (4th Cir. 2010).

\(^{109}\) Contractors Ass’n of E. Pennsylvania, 91 F.3d at 602; Webster v. Fulton Cnty., Georgia, 51 F. Supp. 2d 1354, 1369 (N.D. Georgia 1999) (finding no “linkage between private sector discrimination and the County’s contracting policies”).

\(^{110}\) Contractors Ass’n of E. Pennsylvania, 91 F.3d at 602 (holding that “racial discrimination can justify a race-based remedy only if the city has somehow participated in or supported that discrimination”).

\(^{111}\) Eng’y Contractors, 122 F.3d at 921-22.

\(^{112}\) Id. at 924.

\(^{113}\) Builders Ass’n of Greater Chicago v. Cnty. of Cook, 123 F. Supp. 2d 1087 (N.D. Ill. 2000).

\(^{114}\) Builders Ass’n of Greater Chicago v. Cnty. of Cook, 256 F.3d 642, 645 (7th Cir. 2001).

\(^{115}\) Id.

\(^{116}\) Id.

\(^{117}\) 345 F.3d at 973.

\(^{118}\) 321 F.3d at 985.

\(^{119}\) See, e.g., N. Contracting, Inc. v. State of Ill., No. 00-C-4515, 2005 WL 2230195 (N.D. Ill. Sept. 8, 2005) (mem. op.).
2.4 TO WITHSTAND STRICT SCRUTINY, AN MBE PROGRAM MUST BE NARROWLY TAILORED TO REMEDY IDENTIFIED DISCRIMINATION

Even when courts hold that an MBE Program advances a compelling interest, they sometimes conclude that the program has not been narrowly tailored. Following Supreme Court precedent, the circuit courts have considered the following in evaluating narrow tailoring: (1) the efficacy of alternative, race-neutral remedies; (2) the flexibility and duration of the race-conscious remedy; (3) the relationship of the numerical goals to the relevant labor market; (4) the impact of the remedy on third parties; and (5) the possibility of over- or under-inclusiveness.

2.4.1 RACE-NEUTRAL ALTERNATIVES

In Croson, the Supreme Court concluded that a governmental entity must demonstrate that it considered race-neutral means to increase minority business participation in contracting or purchasing activities. Circuit court cases considering the race-neutral alternatives included in the federal DBE regulations are instructive regarding this requirement. For example, the Eighth Circuit noted that the DBE regulations “place strong emphasis on the use of race-neutral means to increase minority business participation in government contracting.” The Tenth Circuit noted that the DBE regulations provide that “if a recipient can meet its overall goal through race-neutral means, it must implement its program without the use of race-conscious contracting measures, and enumerate a list of race-neutral measures.” Those measures included “helping overcome bonding and financing obstacles, providing technical assistance, [and] establishing programs to assist start-up firms.” The Fourth Circuit noted that the consideration of the race-neutral alternatives found in the federal DBE regulations is evidence of narrow tailoring in a state M/WBE program.

Strict scrutiny does not mandate that every race-neutral measure be considered and found wanting, however. The Eighth Circuit held that “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.”

2.4.2 FLEXIBILITY AND DURATION OF THE REMEDY

Courts also consider how flexible and onerous an affirmative-action program is when evaluating whether the program is narrowly tailored. For instance, in upholding a preference program under the federal DBE
program, the Eighth Circuit favorably noted that the “DBE program has substantial flexibility,”\textsuperscript{127} and added:

> A State may obtain waivers or exemptions from any requirement and is not penalized for a good faith failure to meet its overall goal. In addition, the program limits preferences to small businesses falling beneath an earnings threshold, and any individual whose net worth exceeds $750,000 cannot qualify as economically disadvantaged.\textsuperscript{128}

Waivers and project goals are important to this analysis. Virtually all successful race-conscious preference programs achieve flexibility by using waivers and variable project goals rather than merely setting a quota.\textsuperscript{129} The federal DBE regulations, for example, set aspirational, not mandatory, goals; expressly forbid quotas; and use overall goals simply as a framework for setting local contract goals, if any, based on local data. All of these factors have been favorably noted by courts holding the revised Department of Transportation (DOT) DBE program constitutional.\textsuperscript{130}

With respect to program duration, in \textit{Adarand v. Peña (Peña)}, the Supreme Court held that courts should consider whether a challenged program is “appropriately limited such that it will not last longer than the discriminatory effects it is designed to eliminate.”\textsuperscript{131} The Eighth Circuit noted the limits in the DBE program, stating that “the DBE program contains built-in durational limits,” and that a governmental actor “may terminate its DBE program if it meets its annual overall goal through race-neutral means for two consecutive years.”\textsuperscript{132}

Other appellate courts have noted possible mechanisms for limiting program duration, including termination if goals have been met,\textsuperscript{133} decertification of MBEs who achieve certain levels of success,\textsuperscript{134} or mandatory review of MBE certification at regular, relatively brief periods.\textsuperscript{135} Governments thus have some duty to ensure that they update their evidence of discrimination regularly enough to review the need for their programs and to revise programs as necessary.\textsuperscript{136}

### 2.4.3 RELATIONSHIP OF GOALS TO AVAILABILITY

Narrow tailoring requires consistency between remedial goals and measured availability. Merely setting percentages without a basis in statistical evidence, as the City of Richmond did in \textit{Croson}, has strongly influenced decisions finding programs unconstitutional.\textsuperscript{137}

By contrast, the Eighth, Ninth, and Tenth Circuits have approved the goal-setting process for the federal DBE program, as revised in 1999, and these decisions are instructive when considering whether any race-
conscious preference program is narrowly tailored.\textsuperscript{138} The DBE regulations require goals based on one of several methods for measuring DBE availability.\textsuperscript{139} The Eighth Circuit noted that the “DOT has tied the goals for DBE participation to the relevant labor markets,” insofar as the regulations “require grantee States to set overall goals based upon the likely number of minority contractors that would have received federally assisted highway contracts but for the effects of past discrimination.”\textsuperscript{140} The Eighth Circuit acknowledged that goal setting was inexact but also stated:

The exercise requires the States to focus on establishing realistic goals for DBE participation in the relevant contracting markets. This stands in stark contrast to the program struck down in \textit{Croson}, which rested upon the completely unrealistic assumption that minorities will choose a particular trade in lockstep proportion to their representation in the local population.\textsuperscript{141}

Moreover, the approved DBE regulations use built-in mechanisms to ensure that DBE goals are not set excessively high relative to DBE availability. For example, the approved DBE goals are to be set aside if the overall goal has been met for two consecutive years by race-neutral means.\textsuperscript{142} The approved DBE contract goals also must be reduced if overall goals have been exceeded with race-conscious means for two consecutive years.\textsuperscript{143} The Eighth Circuit has found these provisions to be evidence of narrow tailoring, particularly when the provisions are implemented according to local disparity studies that carefully calculate the applicable goals.\textsuperscript{144}

\textbf{2.4.4 BURDEN ON THIRD PARTIES}

Narrow tailoring also requires minimizing the burden of the program on third parties. The Eighth Circuit stated the following with respect to the federal DBE program:

Congress and DOT have taken significant steps to minimize the race-based nature of the DBE program. Its benefits are directed at all small businesses owned and controlled by the socially and economically disadvantaged. While TEA-21 creates a rebuttable presumption that members of certain racial minorities fall within that class, the presumption is rebuttable, wealthy minority owners and wealthy minority-owned firms are excluded, and certification is available to persons who are not presumptively disadvantaged but can demonstrate actual social and economic disadvantage. Thus, race is made relevant in the program, but it is not a determinative factor.\textsuperscript{145}

Waivers and good-faith compliance are also tools that serve this purpose of reducing the burden on third parties.\textsuperscript{146} The DOT DBE regulations have also sought to reduce the program burden on non-DBEs by

\begin{enumerate}
\item Adarand \textit{v. Slater}, 228 F.3d at 1182; Sherbrooke \textit{Turf}, 345 F.3d at 972; \textit{W. States Paving}, 407 F.3d at 995.
\item 49 C.F.R. § 26.45.
\item \textit{Sherbrooke Turf}, 345 F.3d at 972 (citing 49 C.F.R. § 26.45(c)-(d) (Steps 1 and 2)).
\item Id. at 972 (citing \textit{Croson}, 488 U.S. at 507).
\item 49 C.F.R. § 26.51(f)(3).
\item 49 C.F.R. § 26.51(f)(4).
\item \textit{Sherbrooke Turf}, 345 F.3d at 973-974.
\item 49 C.F.R. § 26.53.
\end{enumerate}
avoiding DBE concentration in certain specialty areas.\textsuperscript{147} These features have gained the approval of the circuit court in \textit{Adarand} which discussed them at length as measures of lowering impact on third parties.\textsuperscript{148}

\subsection*{2.4.5 OVER-INCLUSION}

Narrow tailoring also involves limiting the number and type of beneficiaries of the program. As noted, there has to be evidence of discrimination to justify a group-based remedy and over-inclusion of uninjured individuals or groups can endanger the entire program.\textsuperscript{149} Federal DBE programs have succeeded in part because regulations covering DBE certification do not provide blanket protection to all minority groups.\textsuperscript{150}

Further, the MBE program must be limited in its geographical scope to the boundaries of the enacting government’s marketplace. In \textit{Croson}, the Supreme Court indicated that a local agency has the power to address discrimination only within its own marketplace.\textsuperscript{151} The Court took issue with the fact that the Richmond MBE program certified minority firms from around the United States.\textsuperscript{152}

In \textit{Coral Construction}, the Ninth Circuit concluded that the King County MBE program was not narrowly tailored because the definition of MBEs eligible to benefit from the program was overbroad.\textsuperscript{153} The definition included MBEs that had had no prior contact with King County, as long as the MBE could demonstrate it had been “discriminated against in the particular geographic areas in which it operates.”\textsuperscript{154} This MBE definition suggested that the program was designed to eradicate discrimination not only in King County but also in the particular area in which a non-local MBE conducted business. In essence, King County’s program aimed to eliminate societal discrimination, which is outside the power of a state or local government. Because “the County’s interest is limited to the eradication of discrimination within King County, the only question that the County may ask is whether a business has been discriminated against in King County.”\textsuperscript{155}

In clarifying an important aspect of the narrow-tailoring requirement, the court defined the issue of eligibility for MBE programs as one of participation, not location. For an MBE to reap the benefits of an affirmative-action program, the business must have been discriminated against in the jurisdiction that established the program.\textsuperscript{156} As a threshold matter, before a business can claim to have suffered discrimination, it must have attempted to do business with the governmental entity.\textsuperscript{157} It was found significant that “if the County successfully proves malignant discrimination within the King County

\begin{thebibliography}{157}
\bibitem{147} 49 C.F.R. § 26.33.
\bibitem{148} \textit{Adarand v. Slater}, 228 F.3d at 1182.
\bibitem{149} See, e.g., \textit{Builders Ass’n of Greater Chicago}, 256 F.3d at 647.
\bibitem{150} \textit{Sherbrooke Turf}, 345 F.3d at 972-73.
\bibitem{151} \textit{Croson}, 488 U.S. at 509-10.
\bibitem{152} Id. at 478.
\bibitem{153} \textit{Coral Constr.}, 941 F.2d at 925.
\bibitem{154} Id. (quotation omitted).
\bibitem{155} Id.
\bibitem{156} Id.
\bibitem{157} Id.
\end{thebibliography}
business community, an MBE would be presumptively eligible for relief if it had previously sought to do business in the County.”

2.5 DBE PROGRAMS

2.5.1 FACTUAL PREDICATE FOR DBE PROGRAMS
Federal courts have found that DBE programs established pursuant to federal regulations issued under the 1998 Transportation Equity Act are narrowly tailored to serve a compelling interest. The Ninth Circuit in *W. States Paving Co. v. Washington State Dep’t of Transp.* cited the following evidence that Congress considered in finding a factual predicate supporting the federal DBE program:

- Minority business ownership percentage does not reflect the percentage of the population.
- MBEs have gross receipts that are on average approximately one-third of those of firms owned by non-minorities.
- MBEs own 9 percent of all businesses but receive only 4.1 percent of federal contracting dollars.
- WBEs constitute almost one-third of all small businesses but receive less than 3 percent of federal contracting dollars.
- Majority-owned construction firms receive more than 50 times as many loan dollars per dollar of equity capital as firms owned by African Americans with the same borrowing characteristics.
- After many state and local governments terminated their M/WBE programs, there was a significant drop in M/WBE utilization in the construction industry.
- The U.S. Department of Justice study called *The Compelling Interest for Affirmative Action in Federal Procurement: A Preliminary Survey* found discrimination by trade unions, financial lenders, prime contractors, business networks, suppliers, bonding companies, and “old boys’ network.”

The Ninth Circuit also concurred, finding that Congress did not need evidence of discrimination in every state to enact the national DBE program.

2.5.2 “AS APPLIED” CHALLENGE IN WESTERN STATES PAVING

*Western States Paving* demonstrates how state and federal programs can interact and how states must provide evidence of narrow tailoring independent of federal programs. In that case, a non-minority subcontractor brought a civil-rights action against the state, county, and city alleging that the award of road construction contracts (financed by federal transportation funds) violated the subcontractor’s

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158 Id.
159 See, e.g., *Adarand v. Slater*, 228 F.3d 1147; *Sherbrooke Turf*, 345 F.3d 964; *W. States Paving*, 407 F.3d 983 (9th Cir. 2005). Prior to the 1997 Act, federal courts had ruled that while there was a factual predicate for the federal DBE program, the program’s earlier versions were not narrowly tailored. See, e.g., *In re Sherbrooke Sodding Co.*, 17 F.Supp.2d 1026 (D. Minn. 1998); *Peña*, 965 F. Supp. 1556, 1570 (D. Colo. 1997).
160 *W. States Paving*, 407 F.3d at 992.
161 Id. (citing *Rothe Dev. Corp. v. United States Dep’t of Def.*., 262 F.3d 1306, 1329 (Fed. Cir. 2001)).
Constitutional rights. The court noted that “[w]hether Washington’s DBE program is narrowly tailored to further Congress’s remedial objective depends upon the presence or absence of discrimination in the State’s transportation contracting industry.” Without evidence of such state-specific discrimination, “the State’s DBE program does not serve a remedial purpose; it instead provides an unconstitutional windfall to minority contractors solely on the basis of their race or sex.”

While the Washington DOT conceded that it had no studies of discrimination in highway contracting, it argued that there was evidence of discrimination as DBEs received 9 percent of subcontracting dollars on state-funded projects where there were no DBE goals and 18 percent of federal-funded projects where there were DBE goals. But the Ninth Circuit stated that “even in States in which there has never been discrimination, the proportion of work that DBEs receive on contracts that lack affirmative action requirements will be lower than the share that they obtain on contracts that include such measures because minority preferences afford DBEs a competitive advantage.”

The Ninth Circuit also dismissed the disparity between the proportion of DBE subcontractors and the proportion of DBE dollars on state-funded contracts, because “DBE firms may be smaller and less experienced than non-DBE firms (especially if they are new businesses started by recent immigrants) or they may be concentrated in certain geographic areas of the State, rendering them unavailable for a disproportionate amount of work.” The Ninth Circuit stated:

[M]inority firms may not have bid on . . . construction contracts because they were generally small companies incapable of taking on large projects; or they may have been fully occupied on other projects; or the District’s contracts may not have been as lucrative as others available in the Washington metropolitan area; or they may not have had the expertise needed to perform the contracts; or they may have bid but were rejected because others came in with a lower price.

The Ninth Circuit noted further that “to the extent this small disparity has any probative value, it is insufficient, standing alone, to establish the existence of discrimination against DBEs.” The Ninth Circuit contrasted this minor disparity with the Ninth Circuit’s decision in AGCC II, where “discrimination was likely to exist where minority availability for prime contracts was 49.5% but minority dollar participation was only 11.1%.”

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162 W. States Paving, 407 F.3d at 997-98.
163 Id.
164 Id. at 1000. By contrast, the Eighth Circuit and the Tenth Circuit found that a decline in DBE utilization following a change in or termination of a DBE program was relevant evidence of discrimination in subcontracting. Sherbrooke Turf, 345 F.3d 964; Adarand v. Slater, 228 F.3d at 1174. The Tenth Circuit stated that while this evidence “standing alone is not dispositive, it strongly supports the government’s claim that there are significant barriers to minority competition in the public subcontracting.” Adarand v. Slater, 228 F.3d at 1174; see also Concrete Works IV, 321 F.3d at 985.
165 W. States Paving, 407 F.3d at 1001.
166 Id. (quoting O’Donnell Constr. v. D.C., 963 F.2d 420, 426 (D.C. Cir. 1992)).
167 W. States Paving, 407 F.3d at 1000.
168 Id. (citing Associated Gen. Contractors of California, Inc., 950 F.2d at 1414).
Because Washington did not proffer any evidence of discrimination within its own contracting market, the subcontractor’s as-applied challenge was successful.169

2.6 SMALL BUSINESS PROCUREMENT PREFERENCES

Small business procurement preferences have existed since the 1940s. The first small business program had its origins in the Smaller War Plants Corporation (SWPC), established during World War II.170 The SWPC was created to channel war contracts to small businesses. In 1947, Congress passed the Armed Forces Procurement Act, declaring, “It is the policy of Congress that a fair proportion of the purchases and contracts under this chapter be placed with small business concerns.”171 Continuing this policy, the 1958 Small Business Act requires that government agencies award a “fair proportion” of procurement contracts to small business concerns.172 The regulations implement this general policy.173

Section 8(b)(11) of the Small Business Act authorizes the Small Business Administration (SBA) to set aside contracts for placement with small business concerns. The SBA has the power:

> . . . to make studies and recommendations to the appropriate Federal agencies to insure that a fair proportion of the total purchases and contracts for property and services for the Government be placed with small-business enterprises, to insure that a fair proportion of Government contracts for research and development be placed with small-business concerns, to insure that a fair proportion of the total sales of Government property be made to small-business concerns, and to insure a fair and equitable share of materials, supplies, and equipment to small-business concerns.174

Every acquisition of goods and services anticipated to be between $3,500 and $150,000 is set aside exclusively for small businesses unless the contracting officer has a reasonable expectation of fewer than two bids.175

There have been limited constitutional challenges to the long-standing federal SBE programs. In J.H. Rutter Rex Manufacturing v. United States,176 a federal vendor unsuccessfully challenged the Army’s small business set-aside as violating the due process clause of the Fifth Amendment to the U.S. Constitution, as well as the Administrative Procedures Act and the Armed Forces Procurement Act. The court held that classifying businesses as small was not a “suspect classification” subject to strict scrutiny. Instead, the court ruled:

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169 W. States Paving, 407 F.3d at 1003.
176 706 F.2d 702 (5th Cir. 1983).
Since no fundamental rights are implicated, we need only determine whether the contested socioeconomic legislation rationally relates to a legitimate governmental purpose. Our previous discussion adequately demonstrates that the procurement statutes and the regulations promulgated thereunder are rationally related to the sound legislative purpose of promoting small businesses in order to contribute to the security and economic health of this Nation.¹⁷⁷

A large number of state and local governments have maintained small business preference programs for many years.¹⁷⁸ One possible reason for the relatively low level of litigation in this area is the lack of significant organizational opposition to SBE programs. Indeed, the legal foundations that have typically sued M/WBE programs have actually promoted SBE procurement preference programs as a race-neutral substitute for M/WBE programs.

### 2.7 CONCLUSION

A governmental entity designing and implementing an affirmative-action program must navigate fairly complex legal issues for that program to survive court challenge. Fortunately, a significant body of case law has developed in the wake of Croson, providing guidance.

Those decisions have made several principles clear. Most fundamentally, programs involving racial classifications will be subject to strict scrutiny, requiring a showing of a compelling government interest and a narrowly tailored remedy. The first part of this test—a compelling interest—requires evidence of past or present discrimination. Statistical evidence (based on sound methodology) of discrimination has been considered most persuasive, but anecdotal evidence may also be introduced. For the second prong of the strict scrutiny analysis, narrow tailoring, the government must show that race-neutral remedies were considered, and the remedial program must be closely tied to the evidence of discrimination.

While strict scrutiny imposes a high bar for constitutionality, it is not insurmountable if programs are designed and maintained with this legal framework in mind.

¹⁷⁸ For example, Florida started a small business preference program in 1985 (Fla. St. Sec. 287); Minnesota in 1979 (Mn. Stat. 13 7.31); and New Jersey in 1993 (N.J.S.A. 52:32-17).
CHAPTER 3. REVIEW OF POLICIES, PROCEDURES, AND PROGRAMS

2019 Third Generation Disparity Study

City of Dayton
3.1 INTRODUCTION

Chapter 3 examines policies to ensure that all interested parties have the opportunity to participate in procurement with the City of Dayton (City). A comprehensive review of procurement policies is important in establishing a legally defensible disparity study and potential remedies. In examining the City’s contracting and procurement policies we focused on determining how policies and practices impact equal access to procurement opportunities. Chapter 3 includes an overview of procurement policies and procedures and examines the routine application and use of policies. In addition, within the context of reviewing and analyzing policies and procedures MGT’s review focused on whether there are unintended consequences that impact the goal of ensuring equal access to procurement opportunities.

MGT’s review of policies and procedures is presented in five major sections. Section 2 includes a brief description of the methodology used to conduct the policy review. The remaining sections summarize procurement policies, procedures and the structure and environment in which policies are carried out. The intent of this chapter is to provide the foundation for the analysis of utilization and availability in Chapter 4 and the findings and recommendations in Chapter 8.

3.2 METHODOLOGY

This section discusses the overall approach and methods undertaken to review the City’s procurement policies. MGT’s review also involved developing an understanding of the City’s procurement organization structure and roles and responsibilities of the Human Relations Council (HRC) and other city departments, particularly related to equal access to procurement opportunities for minority- and women-owned businesses. The policy review was conducted with the full and complete cooperation of HRC and City staff who provided information, support, and assistance to MGT throughout the policy review. Without this level of cooperation, conducting the policy review would have been very difficult. To conduct the policy review and to prepare this chapter, MGT’s approach included collecting and reviewing source documents and materials related to contracting and procurement. Policies, procedures, and practices were also reviewed and discussed with HRC and City staff to better understand procurement operations and practices. However, the full impact of these policies and procedures can only be made in conjunction with the quantitative and anecdotal analysis discussed in the chapters that follow. The evaluation of contracting and procurement policies included the following major steps:

- Finalizing the scope and parameters of the policy review.
- Collection, review, and summarization of the City’s procurement policies and procedures.
- Collection and review of other information and data pertaining to procurement and contracting.
- Review of applicable laws and regulations governing procurement and contracting.
• Interviews and meetings with staff regarding policies and procedures and ensuring equal access to procurement opportunities.

• Interviews and meetings were initially held with HRC and City staff in April 2018 and follow-up contacts were made afterwards to obtain additional information and insights. In addition to soliciting information and insights about procurement operations, the interviews and meetings were also used to develop a better understanding of the organization structure and environment in which contracting, and procurement take place. Interviews and meetings were conducted with the following:
  - Business & Technical Assistance Administrator, HRC
  - Procurement Management and Budget
  - Public Works, Division of Civil Engineering, Chief Engineer
  - Division of Water Engineering, Chief Engineer
  - PEP Program Officer
  - Aviation, Deputy Director

Finally, MGT collected and reviewed a variety of source documents and information pertinent to the policy review. Major source documents and information collected and reviewed by MGT are itemized in Table 3-1.

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<td><strong>Procurement Documents</strong></td>
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<td>6.</td>
<td>Section 35.33 Procurement Enhancement Plan for Small, Minority, and Women’s Business Enterprises</td>
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<td>7.</td>
<td>PEP YTD and Quarterly Contract Compliance Reports 2012-2017</td>
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<tr>
<td><strong>Related Source Documents</strong></td>
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<tr>
<td>9.</td>
<td>City of Dayton Revised Code of General Ordinances</td>
</tr>
<tr>
<td>10.</td>
<td>HRC 2017 Highlights and PEP Quarterly Update January 31, 2018</td>
</tr>
<tr>
<td>11.</td>
<td>RFP Contract Requisition and Tracking Form</td>
</tr>
<tr>
<td>12.</td>
<td>Recommended PEP Goals for 2017</td>
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<tr>
<td>13.</td>
<td>Recommended PEP Goals for 2018</td>
</tr>
</tbody>
</table>
3.2.1 DEFINITIONS

The section which follows include selected definitions extracted from Section 35.35 (PEP Ordinance). The selected definitions are primarily related to participation in procurement opportunities. Documenting and understanding definitions were important because they help to provide context for the policies and procedures reviewed by MGT.

**Annual eligible spend for construction.** The total amount spent annually on construction projects, excluding money spent from state and federal funds and other funding streams that limit or prohibit local goal setting. Funds excluded from the annual spend for construction include projects that are bid with a federal DBE goal as specified by the Federal Aviation Administration, Federal Highway Administration, Environmental Protection Agency, and Ohio Department of Transportation.

**Annual eligible spend for goods and services.** The total amount spent annually for goods and services, excluding funds expended for the following: payments to governmental entities or governmental agents; payments made because of negotiated settlements and required by the court system or state or federal government; payments made to the following regulated utilities: railroads, telephones, electric and natural gas; those purchases that are not for the following: equipment, materials, supplies, services; payments made because of prompt pay penalties; right-of-way payments made to owner for the purchase of land and/or property, and; sole source expenditures.

**Award.** Legislation or City Manager action authorizing the award of a contract by the city, provided, however, that the contract will not become binding upon the city, and the city will incur no liability under it, until it has been duly executed by the contractor and the city with all required submittals, including insurance and bonding, if applicable.

**Bid.** Written quotations, proposals, or offers by a bidder or contractor to perform or provide labor, materials, equipment, goods, or services to the city for a price submitted in response to a competitive bidding solicitation issued by the city.
Certification. The criteria and process for participation in the PEP.

Certifying agency. A private or public entity designated by the Executive Director or the Human Relations Council as an agency eligible to certify businesses for the city as an MBE, WBE, and/or SBE.

Commercially useful function. The execution by a minority or women owned business enterprise, which contracts with the city, or subcontracts with another business enterprise which contracts with the city, of a distinct element of the work of the contract by actually performing, managing, and supervising the work involved, excepting a business enterprise which serves as a conduit for another.

Construction. The process of building, altering, repairing, remodeling, improving or demolishing any public structure or building or other public improvements of any kind to any public real property, excepting the routine operation, routine repair or routine maintenance of structures, buildings or real property.

Council. The members of the Human Relations Council of the City of Dayton, Ohio, as appointed by the City Commission pursuant to Section 32.13 of the Revised Code of General Ordinances.

Contract. Any agreement between the city and a person or business enterprise to provide or procure labor, materials, equipment, goods and/or services to, for, or on behalf of the city.

Contractor. Any person or business entity that shall enter into a contract with the city, including all partners and all joint ventures of such person or entity.

Counting towards goals. The procedure for calculation of participation in the PEP as determined by the Program Policies and Procedures.

Dayton Local Business. A business located within the corporate limits of the city that has filed or paid a payroll or earnings tax in the most recent calendar quarter and is a taxpayer in good standing with the City of Dayton.

Dayton Local Small Business. A business that:

(a) Is certified by the Executive Director of the Council, or his/her designee, as an MBE, WBE, and/or SBE; and

(b) Is a Dayton Local Business; and

(c) Is a general construction contractor, which has annual average gross receipts for each of the preceding three years of not more than $15,000,000.00; or,

(d) Is a business engaged in specialty trade and services which has annual average gross revenue for each of the immediately preceding three years of not more than $5,000,000.00.

Executive Director of the Council. The individual appointed by the Commission pursuant to Section 32.18 of the Revised Code of General Ordinances of the City of Dayton.
**Good faith efforts.** The steps undertaken, prior to submission of a bid, to obtain MBE, WBE, and/or SBE participation for subcontracting opportunities related to the bid proposal and submitted as defined in the program policies and procedures.

**Goods.** All things, including specially manufactured goods, which are movable at the time of identification to the contract for sale, other than the money in which the price is to be paid, investment securities and things in action, and excluding land or a permanent interest in land.

**Joint venture.** An association of two or more persons, partnerships, corporations, and any combination of them, whereby they combine their expertise, property, capital, efforts, skills and knowledge, which is also:

(a) Comprised of at least one certified MBE, WBE, or SBE;

(b) Evidenced by a notarized, written agreement executed by all joint venture partners;

(c) Approved by the Executive Director of the Council, or his/her designee;

(d) Compliant with any additional criteria established by the council in its policies and procedures; and

(e) Comprised of member businesses that have either different race ownership, different gender ownership, or both.

**Lower tier subcontractor.** A subcontractor who is not in privity of contract with a contractor but is in privity of contract with another subcontractor.

**Lower tier supplier.** A supplier who is not in privity of contract with a contractor but is in privity of contract with a subcontractor or a supplier.

**Minority group.** Any of the following racial or ethnic groups which are referenced in the Second-Generation Disparity Study for the City of Dayton, including:

(a) African Americans or Black Americans;

(b) Hispanic Americans;

(c) Asian Americans; and

(d) Native Americans.

**Minority business enterprise ("MBE").** A business:

(a) Which is at least 51 percent owned by one or more members of one or more minority groups, or, in the case of a publicly held corporation, at least 51 percent of the stock of which is owned by one or more members of one or more minority groups, whose management and daily business operations are controlled by one or more members of one or more minority groups;

(b) Which, in the case of a general construction contractor, has annual average gross receipts for each of the preceding three years of not more than $33,500,000.00; or, in the case of a business engaged in a specialty trade and services has annual average gross revenue over each of the
immediately preceding three years of not more than $15,000,000.00; or, in the case of a business engaged in goods and services has an annual average employee count of 100 or less;

(c) Which can demonstrate that the personal net worth of each owner whose ownership and control are relied upon for certification does not exceed $750,000.00 exclusive of the value of the owner's interest in the MBE and the individual's equity in his or her primary place of residence; and

(d) Which has been certified as an MBE by the Executive Director of the Council or his/her designee.

**Procurement.** Buying, purchasing, renting, leasing or otherwise acquiring any goods, services and/or construction, including a description of requirements, selection and solicitation of sources, preparation and award of contracts and all phases of contract administration.

**Professional services.** Those services within the scope of the practices of architecture, investment banking, professional engineering, planning, landscape architecture, land, surveying, the medical arts, management and analysis, accounting or auditing, law, psychology or any other similar kind or type of professional practice. For purposes of this division, professional services shall not include investment management services.

**Responsive bid.** A quotation, proposal, solicitation, or offer that meets specifications, including, if applicable, any project participation goal as set out in the bid packet specifications.

**Responsible bid.** A quotation, proposal, solicitation, or offer that is fully capable, including financially and technically, performing the responsive requirements.

**Small business enterprise ("SBE").** A business that:

(a) Is an independent and continuing enterprise for profit, performing a commercially useful function;

(b) Has been in existence for not less than one year;

(c) In the case of a general construction contractor, has annual average gross receipts for each of the preceding three years of not more than $33,500,000.00; or, in the case of a business engaged in a specialty trade and services has annual average gross revenue over each of the immediately preceding three years of not more than $15,000,000.00; or, in the case of a business engaged in goods and services has an annual average employee count of 100 or less; in determining the average annual gross revenues of a small business enterprise, the Council shall include gross receipts of each of its affiliates. The gross revenue standard shall be adjusted from time to time consistent with the United States Small Business Administration ("SBA") standards for small businesses.

(d) Certifies that its individual owner(s) whose ownership and control are relied upon for SBE certification has a personal net worth that does not exceed $750,000.00; and,

(e) Which has been certified as an SBE by the Executive Director of the Council or his/her designee.

**Subcontractor.** Any person or business enterprise providing goods, labor, or services to a contractor if such goods, labor or services are procured in fulfillment of the contractor's obligations arising from a
contract with the city. Subcontractor includes every level of subcontracting required to fulfill a contract with the city.

**Women business enterprise ("WBE").** A business enterprise:

(a) Which is at least 51 percent owned by one or more women, or, in the case of a publicly held corporation, 51 percent of the stock of which is owned by one or more women, whose management and daily business operations are controlled by one or more women;

(b) Which, in the case of a general construction contractor, has annual average gross receipts for each of the preceding three years of not more than $33,500,000.00; or, in the case of a business engaged in a specialty trade and services has annual average gross revenue over each of the immediately preceding three years of not more than $15,000,000.00; or, in the case of a business engaged in goods has an annual average employee count of 100 or less;

(c) Which can demonstrate that the personal net worth of each owner whose ownership and control are relied upon for WBE certification does not exceed $750,000.00 exclusive of the value of the owner's interest in the WBE and the individual's equity in his or her primary place of residence; and

(d) Which has been certified as a WBE by the Executive Director of the Council or his/her designee (Ord. 31023-10, passed 9-29-10).

### 3.3 PROCUREMENT STRUCTURE AND ENVIRONMENT

#### 3.3.1 PROCUREMENT ENVIRONMENT

The City’s commitment to equal opportunity is codified in City ordinances and policies designed to ensure equal access to employment and procurement opportunities. Relative to procurement opportunities, City ordinances, policies, and initiatives recognize that in addition to ensuring operating departments can procure needed goods and services, procurement can also be a powerful mechanism for growing the capacity of minority and women-owned businesses. MGT’s experience conducting over 200 disparity studies has shown that if remedies are effectively supported and executed, they can have a significant social and economic impact. The City’s Affirmative Action Assurance Program (AAAP) and Procurement Enhancement Program (PEP) both operate with this premise in mind. Also, the current disparity study is another key indicator of the City’s commitment to equal access to procurement opportunities. This is the City’s third disparity study. Following the 2008 disparity study conducted by MGT, the City implemented the PEP for Minority-owned Business Enterprises (MBEs), Women-owned Business enterprises (WBEs) and Small Business Enterprises (SBEs) to ensure “full and equitable participation in all City procurement activities.” The implementation and execution of PEP is supported by a dedicated structure, operations, and processes guided by a full complement of policies and procedures to facilitate PEP implementation. Based on MGT’s disparity study experience, very few municipalities can match the City’s investment of time and resources devoted to equal access and increased utilization of underrepresented firms. From MGT’s perspective, the City’s policy, organization, staffing and resource enhancements are commendable compared to other municipalities MGT has worked with over the past two decades. As such, City initiatives
undertaken during the 2008 to 2016 study period was an important backdrop for the policy review and the context in which the review was conducted.

With a budget over $200 million, procurement is an essential activity for supporting the city’s daily operations. Exhibit 3-1 shows the city’s organization structure. The organization units shown in Exhibit 3-1 purchase a variety of goods and services for internal operations and to meet the municipal service needs of citizens. To operate efficiently and effectively and provide essential services, procurement and contracting must be continuous and ongoing. Within this context, the organization units shown in Exhibit 3-1 engage in purchasing at varying levels and on a regular basis. Exhibit 3-2 shows the organization structure of the Human Relations Council (HRC). HRC is an independent organization charged with ensuring fair treatment and equal access to opportunities. In doing so, HRC provides leadership on civil rights issues and advocating civil rights issues to the City Commission and the community. The HRC was established by the Dayton City Commission in 1962 and administers Business and Technical Assistance programs including the PEP, HUD Section 3, Unified Certification Program Disadvantaged Business Enterprise (UCP-DBE) and the Affirmative Action Assurance program which is the City’s commitment to anti-discrimination in employment.179

Within the context of providing business and technical assistance, HRC’s enforcement role is critical to ensure full and equitable participation in all City procurement activities. Specific duties of HRC are spelled out in Section 35.34 and include a comprehensive list of duties related to administration and enforcement of PEP, certification of MBEs, WBEs, SBEs, monitoring and compliance, establishing procedures and guidelines, investigating violations, database maintenance, reporting and several other duties that directly and indirectly impact operations, processes, and systems that enable PEP to function efficiently and effectively.180

According to staff, some departments occasionally feel constrained and burdened by PEP policies and procedures designed to ensure participation of M/WBEs. However, improving and strengthening enforcement and compliance is a major strategic priority of Business and Technical Assistance and key to increasing participation of minority- and women-owned businesses in procurement opportunities.

Pursuant to the City’s Purchasing Policy and Procedure Manual, the Division of Procurement (Procurement Division) is responsible for procuring goods and services at the “best value” to taxpayers for the operation of Dayton’s government. According to Article II, Section 2.01 the Procurement Division is delegated authority by the Dayton City Charter and is the only operating Division created by the Dayton City Charter. Section 2.01 also indicates that the “Purchasing Agent” serves as the Procurement Division Manager and reports to the Director of the Department of Procurement, Management and Budget. Major responsibilities of the Division of Purchasing are summarized as follows:

1. Oversee the purchasing of goods and services;
2. Prepare specifications for proposed transactions;
3. Promulgate and amend purchasing operational procedures and administrative regulations—assist departments in complying with regulations;

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179 Revised Code of General Ordinances.
180 Revised Code of General Ordinances.
4. Maintain records to account for expenditures of funds for purchases made by the Procurement Division; and

5. Request information from departments necessary or desirable for efficient administration of the purchasing function.181

Article IX, Section 9.01-9.07(PEP Ordinance) in the Purchasing Policy and Procedural Manual includes language related to PEP. Pursuant to Section 35.38 of the Revised Code of General Ordinances duties of the Procurement Division relative to the PEP include:

- Develop, implement, and amend policies and standards to assist the city in achieving its aspirational goals;
- Notify MBEs, WBEs and SBEs of bid opportunities;
- Participate in trade fairs and association meets for MBEs, WBEs and SBEs;
- Develop and maintain a record of the number of MBEs, WBEs and SBEs contacted with quotes;
- Participate in bi-annual training sessions for city staff involved in procurement related activities; and
- Develop small dollar procurement policies to enhance opportunities for participation.182

Other duties outlined in Section 36.38 range from evaluating the effectiveness of buyers utilizing MBEs, WBEs, and SBEs in purchasing goods and services to involving the Executive Director of the Council in the development of the procurement bid review process.

As shown in Exhibit 3-1, the Procurement Division is housed in Central Services. MGT noted the City’s website indicates the Procurement Division is part of Procurement Management and Budget. As mentioned earlier, the Procurement Division is responsible for purchasing all goods and services and obtaining maximum value for each dollar spent. Through the acquisition of goods and services according to established policies and procedures for advertisement, solicitation, and approval, the Division performs an essential and vital role for the City of Dayton. In carrying out its procurement functions the Division adheres to the standards set forth by the National Institute of Governmental Purchasing (NIGP).

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182 Revised Code of general Ordinances.
EXHIBIT 3-1. CITY OF DAYTON ORGANIZATION CHART

Organization of the City of Dayton

Citizens of Dayton

City Commission

Human Relations Council

Environmental Advisory Board

Landmarks Commission

City Manager

Deputy City Manager

Central Services
Information Technology Services
Facilities Management

Aviation
Administration/Finance
Operations & Facilities
Maintenance
Aircraft Rescue/Firefighting
Airport Police

Public Works
Civil Engineering
Facilities Management
Street Maintenance
Waste Collection

Planning & Community Development
Community Development
Planning
Housing Inspection
Dayton Mediation Center

Finance
Tax & Accounting
Revenue Administration

Law
Civil Court

Economic Development
Zoning Administration
Building Inspection

Office of Management & Budget

Office of Communications & Public Affairs

Deputy City Manager

Human Resources

Fire
Emergency Services
Strategic Programs & Safety
Support Services & Resource Management

Recreation & Youth Services
Creation Center
Golf
Recreation/Youth Services

Police
Office of the Chief
Investigations & Administrative Services
Division
West Patrol Operations
Division
East Patrol Operations
Division
Central Patrol Operations
Division

Source: Human Relations Council.
As discussed with MGT, the Division has one Purchasing Agent, one Senior Buyer, three Buyers, and one Associate Buyer that play a key role in working with departments navigating PEP to meet their purchasing needs for goods and services. The interviews and meetings conducted by MGT yielded a diverse range of opinions and perceptions about PEP and its impact on increasing access to procurement opportunities. It was clear from MGT’s review that the organization structure and dynamics created by HRC’s status as an independent organization accountable to the City Commission is a factor that impacts perceptions about PEP. The interviews and meetings also revealed a great deal of sensitivity and urgency related to increasing participation of minority- and women-owned businesses. In fact, ensuring minority businesses have equal access to procurement opportunities was clearly a major priority that is advocated and supported by the HRC and the staff that were interviewed by MGT.

The underlying premise of any disparity study is improving access to contracting and procurement opportunities to ensure M/WBE firms share in economic prosperity. To move toward this goal many entities track two major performance measures— “number of minority business contracts awarded” and “procurement reflects the demographics of the community.” MGT’s experience has been that these two measures can be used to assess changes and evaluate progress toward greater diversity and inclusion in procurement. Our experience has also shown that the absence of such measures and clear mandates can sometimes lead to “person-based procurement” and “habit buying” that limit access and participation of minority vendors and that often result in complaints about fairness. MGT’s policy review also included examining PEP Contract Compliance Reports dating back to 2012. It was noted that the measures mentioned above are included in the PEP Contract Compliance Reports for construction, goods, and services and DBE and HUD Section 3 programs.
3.4 PROCUREMENT POLICIES AND PROGRAMS

The overview which follows is narrowly focused on major policies and programs which have a more direct impact on equal access to procurement opportunities. To evaluate contracting and procurement policies MGT reviewed the policy related documents and information listed in Table 3-1 with a major focus on the PEP Policy Procedure Manual (6th and 7th edition), Affirmative Action Assurance Policies and Procedures Manual, Division of Purchasing Policy and Procedure Manual, and PEP Ordinance. The sections which follow are intended to provide a high-level summary of procurement policies and procedures related to ensuring access to procurement opportunities. It is not intended to provide a detailed discussion about the processes associated with each policy or the “nuts and bolts” of how each policy is carried out. MGT’s primary focus was on how policies and procedures are being used to facilitate equal access to procurement opportunities and whether there are barriers and impediments built into the policies or how policies are operationalized. MGT paid considerable attention to pertinent sections of the Revised Code of General Ordinances and other source documents that impact contracting and procurement and equal access to procurement opportunities for minority- and woman-owned businesses. Major source documents include the following:

- Affirmative Action Assurance Change Recommendations
- PEP Ordinance Section 35.33
- PEP Policy Procedure Manual
- Division of Purchasing Policy and Procedure Manual
- Code of General Ordinances
  - Chapter 35-Contracts
  - Advertising Contracts of City Sec.35.01-35.04
  - Public Works Contracts Sec.35.10-35.29
  - Equipment Purchases Sec.35.25-35.28
  - Procurement Enhancement Plan for Goods, Services and Construction 35.30-35.52

The review of the above documents helped to shape the discussions with staff about how policies are being implemented and how policies impact minority and women vendors seeking contracting and procurement opportunities. In reviewing these documents MGT also noted whether relevant state laws and regulations listed in Table 3-1 are referenced in the City’s policies. Based upon MGT’s experience, efficient and effective coordination and execution of the purchasing process is largely dependent upon knowledgeable and skilled staff and well established and executed policies and procedures for advertisement, solicitation, vendor evaluation/selection, contract negotiation, and approval. MGT’s meetings and discussions with HRC and City staff revealed that staff are quite knowledgeable about procurement policies and processes and are keenly aware of resources needed and changes in structure, operations, and processes that could significantly improve procurement outcomes. Much of the overview that follows is based on the policy documents that were reviewed and discussions with staff about the
purchasing process. Based upon MGT’s meetings and discussions with staff the overarching purpose of the city’s procurement policies are as follows:

- Ensure fair and open competition;
- Maintain a responsive and responsible purchasing process;
- Provide fair and equitable treatment of persons seeking to do business with the city; and
- Obtain the materials, services, and construction required by the city in a cost-effective manner.

MGT’s interviews/meetings with HRC and City staff indicated that the above stated purposes are embodied in the roles and responsibilities of the staff in the Procurement Division and HRC staff responsible for enforcement and compliance with Affirmative Action Assurance (AAA) requirements and PEP policies and requirements. The extent to which minority-owned, woman-owned and small businesses benefit from PEP and AAA will be determined in conjunction with the additional input gathering and data analysis conducted by MGT.

### 3.4.1 PURCHASING AUTHORITY

Policies that delineate purchasing authority provide guidance, direction, and boundaries for contracting and procurement. The City Commission is the contracting authority for the City of Dayton. The City Commission delegates authority to the City Manager and the City Manager delegates authority to the Purchasing Agent. The Purchasing Agent has authority to carry out purchases under $10,000 and the City Commission must approve purchases over $10,000. Under certain conditions, purchasing authority may be delegated to departments to purchase goods or services. What this means in practice is that departments have a certain degree of latitude and discretion in instances where purchasing authority has been delegated. The question becomes whether department-level latitude and discretion are exercised and used to ensure equal access to procurement opportunities for minority-owned, woman-owned and small businesses. MGT’s experience has shown that a strong internal advocate and equally strong compliance and enforcement is critical. Without such efforts experience has shown there is a tendency to engage in “habit buying” or “habit purchasing” that almost automatically exclude vendors with whom departments are unfamiliar and/or unaware of their existence. We have also witnessed situations where habit buying or habit purchasing resulted in “legacy awards” where the same vendor was used for 10 years or more to the exclusion of other potential vendors.

### 3.4.2 EXCEPTIONS

There are provisions that allow for the competitive procurement process to be waived or modified for the following types of procurement:

- **Emergency Procurement**
  
Purchases made because of an immediate and serious threat to community health, safety or welfare when circumstances do not allow time for normal competitive purchasing procedures.

- **Sole Source**
  
Only one vendor has the unique available ability to meet the City’s requirements.

- **Intergovernmental Procurement**
Purchase of goods or services directly from any other governmental or quasi-governmental entity or political subdivision.

- **Cooperative Procurement**
  Cooperative purchasing agreement for the procurement of materials, supplies, equipment or services with one or more units of government.

### 3.4.3 SOURCE SELECTION AND SOLICITATIONS

Source selection is a fundamental but critical purchasing function that is necessary to acquire essential goods and services. MGT’s discussions with staff focused on primary source selection methods and related policies and practices and how businesses are impacted. Based upon MGT’s review, the City’s policies and procedures for source selection are clear and appear to be user-friendly. In reviewing policies and practices for source selection MGT examined Article VIII-The Competitive Bid Process, Section 7.01-7.03, relevant sections of the Code of General Ordinances, relevant sections of the PEP Policies and Procedures Manual and the AAA Policies Procedures Manual and the city’s website. MGT also reviewed several bid documents, some of which are listed in Table 3-1.

### 3.4.4 COMPETITIVE SOLICITATION

Article VIII in the Purchasing Policy and Procedural Manual includes language related to the competitive bid process. Section 7.02 contains provisions for informal bids less than $50,000 and Section 7.03 contain provisions for formal bids more than $50,000. Formal bids are required to be submitted in writing and sealed, and usually solicited through a Request for Proposals (RFP). As part of its review, MGT examined several RFPs and at least one Invitation to Bid. Bidding and RFP policies are outlined in detail in the PEP Policies and Procedures Manual. Included are construction bidding policies and public-bid construction process. According to the policy a centralized bidding process is used for all public-bid construction projects, including projects for the Water Department, Aviation, Public Works, Housing Inspection, Planning and Community Development, and Economic Development. The centralized bidding for public-bid construction projects is handled by the Public Works Department. Starting with discussing PEP requirements at all Pre-bid meetings, HRC plays a very prominent and substantial role in the public-bid construction process. **Exhibit 3-3** summarize responsibilities during the public-bid construction process.

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<tr>
<th>EXHIBIT 3-3. HUMAN RELATIONS COUNCIL RESPONSIBILITIES</th>
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<td>Participation in Pre-bid Meetings</td>
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<td>Recommend MBE, WBE, or SBE Goals</td>
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<td>Approve Invitation to Bid and Legal Notice</td>
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<td>Notification to MBEs, WBEs, and SBEs of Bid Opportunity</td>
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<tr>
<td>Conduct Bid Opening with Public Works</td>
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<tr>
<td>Contract Compliance Communication to Prime Contractor and PEP Subcontractors</td>
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<tr>
<td>Conducts Contract Compliance Evaluation</td>
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<tr>
<td>Conduct Pre-Construction Meeting with Department and Prime Contractor</td>
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<tr>
<td>Monitoring and Reporting</td>
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<td>Complaint and Issue Resolution</td>
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Source: Created by MGT.

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Exhibit 3-4 provides an overview of the process associated with HRC responsibilities in Exhibit 3-3.

EXHIBIT 3-4. OVERVIEW OF HRC RFP PROCESS

Source: Created by MGT from July 2015 HRC RFP Process Memorandum.

3.4.5 DBE PROGRAM

The City’s DBE Program is another avenue and mechanism for increasing participation in procurement opportunities. The HRC is responsible for jointly administering the Ohio Unified Certification. UCP allows DBEs to be certified statewide and participate in U.S. Department of Transportation funded projects including FAA, FHWA, and FTA. DBE programs are designed to ensure compliance with the Transportation Equity Act for the 21st Century (TEA-21) along with regulations in 49 C.F.R. Part 26 (Part 23 for concessions).

MGT reviewed DBE Program Plans for Dayton International Airport dating back to 2015 as well the Airport’s ACDBE Program Plan 2016-2017-2018. Both plans are premised on leveling the playing field so that DBEs and ACDBEs can compete fairly for contracts. Another key objective of DBE and ACDBE programs is growing capacity and sustainability so that businesses can compete successfully outside of the DBE and ACDBE program.

The City’s DBE and ACDBE programs were established in accordance with regulations in CFR Part 26 and CFR Part 23 as a condition of receiving funds. In terms of provisions and requirements the DBE and ACDBE mirror certain DBE provisions, including:

- Administrative Requirements
- DBE or ACDBE Goals
CHAPTER 3: REVIEW OF POLICIES, PROCEDURES, AND PROGRAMS

- Good Faith
- Certification Standards and Procedures
- Compliance and Enforcement

To be eligible to bid on DBE designated, a business must be certified with the Ohio Department of Transportation’s office of Contracts and must be at least 51% owned by individuals who are both socially and economically disadvantaged.

3.4.6 PEP CERTIFICATION

Certification is critical to the PEP and key to ensuring the availability and capacity of PEP firms. According to staff without certification, PEP would have limited impact and effectiveness. Given its importance, selected certification requirements and provisions in Part II of the PEP Policies and Procedures Manual are extracted and presented in the sections which follow.

Certification of PEP Companies (Section 35.40)

The certification process is the responsibility of the Executive Director of the Council. All inquiries concerning the certification process shall be directed to the Executive Director of the Council or his/her designee.

Standard Certification Process for SBEs (Section 35.40)

A business seeking certification as an SBE must submit an application to the City on a form approved and provided by the Council, affirming under penalty of perjury that the business qualifies as such. To qualify as an SBE, the potential SBE owner must demonstrate:

- That the businesses gross revenues meet the requirements as defined in Section 35.35 of the Revised Code of General Ordinances;
- That the personal net worth of each owner does not exceed Seven Hundred Fifty Thousand Dollars ($750,000) exclusive of the value of the owner’s interest in the SBE and the individual’s equity in his or her primary place of residence. For the purposes of this section, an individual’s personal net worth includes only his or her own share of assets held jointly or as community property with the individual’s spouse;
- That the SBE owner(s) listed on the certification application own and control the business.

Additional Certification Requirements for MBEs and WBEs (Section 35.40)

An SBE seeking certification as an MBE or WBE must submit a written certification application on a form approved and provided by the Executive Director of the Council, or his/her designee.

- In the case of an MBE, the owner must be a member of a minority group as defined in Section 35.35 of the Revised Code of General Ordinances, and the business must conform to the definition of an MBE as defined in Section 35.35 of the Revised Code of General Ordinances.
- In the case of a WBE, the business must conform to the definition for such as defined in Section 35.35 of the Revised Code of General Ordinances;
• The MBE or WBE owner(s) listed on the certification application must own, manage and control the business.

To be viewed as controlling a business, an owner whose status is relied upon to obtain certification cannot engage in outside employment or other business interests that conflict with the management of the business or prevent the individual from devoting sufficient time and attention to the affairs of the business to control its activities. For example, absentee ownership of a business or part-time work in a full-time business does not constitute control.

• An owner whose status is relied upon to obtain certification may control a business even though one or more of the individual’s immediate family members (whose status is not relied upon to obtain certification) participate in the business as a manager, employee, owner, or in another capacity. Except as otherwise provided in this paragraph, HRC must make a judgment about the control the owner whose status is relied upon to obtain certification exercises vis-a-vis other persons involved in the business, without regard to whether or not the other persons are immediate family members.

• If HRC cannot determine that the owner whose status is relied upon to obtain certification -- as distinct from the family as a whole -- controls the business, then the owner whose status is relied upon to obtain certification has failed to carry their burden of proof concerning control, even though they may participate significantly in the business’ activities.

In determining whether a business is controlled by its minority or women owners, HRC may consider whether the business owns equipment necessary to perform its work. However, HRC must not determine that a business is not controlled by minority or women owners solely because the business leases, rather than owns, such equipment, where leasing equipment is a normal industry practice and the lease does not involve a relationship with a prime contractor or other party that compromises the independence of the business.

HRC must grant certification to a business only for specific types of work in which the minority or women owners have the ability to control the business. To become certified in an additional type of work, the business need demonstrate to HRC only that the minority and women owners are able to control the business with respect to that type of work. HRC must verify the minority or women owner’s control of the business in the additional type of work.

For a partnership to be controlled by minority or women individuals, no nonminority or women partners may have the power, without the specific written concurrence of the minority or women partner(s), to contractually bind the partnership or subject the partnership to contract or tort liability.

Recertification Process

MBE, WBE or SBE certification is valid for a period of three (3) years from the date of certification. Prior to the expiration of the three-year period, a business that desires to be recertified shall:

• Return a completed recertification form, as provided by the Council, to the office of the Executive Director of the Council, or his/her designee, sixty (60) days prior to the expiration of the certification; and

• Meet the requirements specified in Sections 6.01 and/or 6.02 for certification as a MBE, WBE, or SBE.
CHAPTER 3: REVIEW OF POLICIES, PROCEDURES, AND PROGRAMS

Certification Denials

When the Executive Director of the Council, or his/her designee, denies a request by an applicant business which is not currently certified by the Council, to be certified as a PEP company, the business must be provided a written explanation of the reasons for the denial, specifically referencing the evidence in the record that supports each reason for the denial. All documents and other information on which the denial is based must be made available to the applicant, on request.

When a business is denied certification, a time period of twelve (12) months must elapse before the business may reapply for certification. The time period for reapplication begins to run on the date the written explanation is received by the business.

When the Executive Director of the Council, or his/her designee, makes a denial of certification concerning a business, the business may appeal the denial to the Council under Section 6.13.

Certification Appeals

If a business is denied certification or has its eligibility removed by the Executive Director of the Council, or his/her designee, it may make an administrative appeal to the Council.

A complainant in an ineligibility complaint may appeal to the Council if the Executive Director of the Council, or his/her designee, does not find reasonable cause to propose removing the business’s eligibility, or, following a removal of eligibility proceeding, determines that the business is eligible.

Pending the Council’s decision in the matter, the Executive Director of the Council, or his/her designee’s, decision remains in effect. The Council does not stay the effect of the recipient’s decision while it is considering an appeal.

Upon receiving an appeal, the Council shall request a copy of the complete administrative record on the matter. The Executive Director of the Council, or his/her designee, must provide the administrative record, including a hearing transcript, within twenty (20) days of the Council’s request. The Council may extend this time period based on a showing of good cause. To facilitate the Council’s review of the Executive Director of the Council, or his/her designee’s, decision, the Executive Director of the Council, or his/her designee, must ensure that such administrative records are well organized, indexed, and paginated. Records that do not comport with these requirements are not acceptable and will be returned to the Executive Director of the Council, or his/her designee, to be corrected immediately. If an appeal is brought concerning the Executive Director of the Council, or his/her designee’s, certification decision concerning a business, and the Executive Director of the Council, or his/her designee, relied on the decision and/or administrative record of another entity, this requirement applies to both the Council and the other entity involved.

The Executive Director of the Council, or his/her designee, shall also make any information s/he provides to the Council under this section available to the business and any third-party complainant involved, consistent with applicable federal or state laws concerning freedom of information and privacy. The Council shall make available, on request by the business and any third-party complainant involved, any supplementary information it receives from any source.

The Council shall make its decision based solely on the entire administrative record. The Council does not make a de novo review of the matter and does not conduct a hearing.
The Council will affirm the Executive Director of the Council or his/her designee’s decision unless it determines, based on the entire administrative record, that the decision is unsupported by substantial evidence or inconsistent with the substantive or procedural provisions of this part concerning certification.

If the Council determines, after reviewing the entire administrative record, that the decision of the Executive Director of the Council, or his/her designee, was unsupported by substantial evidence, or inconsistent with the substantive or procedural provisions of this part concerning certification, the Council will reverse the decision and direct the Executive Director of the Council, or his/her designee, to certify the business or remove its eligibility, as appropriate. The Executive Director of the Council, or his/her designee, must take the action directed by the Council’s decision immediately upon receiving written notice of it.

The Council’s policy is to make its decision within one hundred eighty (180) days of receiving the complete administrative record. If the Council does not make its decision within this period, the Council shall provide written notice to concerned parties, including a statement of the reason for the delay, and a date by which its decision will be made.

3.4.7 GOAL SETTING

Establishing PEP goals is a critical and essential function to ensuring equal access to procurement opportunities. Key provisions in Part III are extracted and summarized in the section which follow.

Annual and Project-by-Project Goal-Setting Process

The City of Dayton shall establish the annual PEP goals and project-by-project PEP goals for Construction and Goods and Services opportunities. In establishing the annual and project-by-project inclusion goals, the Oversight Committee, HRC, Purchasing Agent, and the Department Directors shall consider factors that establish the availability and the capacity of certified minority, women, and small business enterprises as well as other relevant factors outlined below.

These factors include but are not limited to:

- The availability of MBEs, WBEs, and SBEs in the relevant market area willing and able to do business with the city;
- Annual participation figures for qualified MBEs, WBEs, and SBEs in both City contracting and the private marketplace;
- The findings and conclusions contained in the Second-Generation Disparity Study and other reports undertaken by the City, organizations, and governmental entities relating to the Dayton market area;
- The Source of Funding (FAA, FHWA, CDBG, HOME, General Cap., Water Rev., OPWC);
- Competition in the bid process;
- Insurance and bonding requirements;
- Specialized/technical complexity of the project or professional opportunity; and,
- The material costs for the project versus the labor opportunity.
The Annual Goal Setting Process by the HRC/Oversight Committee

- The Annual Goals shall be set by a series of annual meetings of the HRC and PEP Oversight Committee, the HRC, Procurement Division and the affected Department for planned projects or opportunities. They shall identify and establish bidding opportunities in certain commodity and industry areas. The Oversight Committee and the HRC shall give due consideration to the following tools which may aid greatly in furthering the PEP goals and local participation:
  - Commodity Area analysis of the City’s spending for goods and services and comparison to ready and available certified PEP companies;
  - Other legally defensible methods that the HRC or Oversight Committee may develop in furtherance of the PEP inclusion goals.
- Once the annual goals have been established, the HRC shall publish to all City departments the established annual goals for Construction and Goods and Services, the commodity and services areas with ready and available MBEs, WBEs and SBEs, and any other methods established for maximizing PEP participation.

Ongoing Project-by-Project Process by the HRC and the Requesting Department

The HRC shall set Project-by-Project or Opportunity-by-Opportunity goals on individual projects or opportunities that arise throughout the year. The HRC shall regularly communicate information regarding newly certified companies in commodity areas not yet targeted under the annual goal-setting process as well as the increased capacity of certified companies to perform under certain commodity areas being considered for bidding.

For Construction goal setting, the Council shall convene a meeting, or series of meetings, by November 15th of each year to review planned construction projects for the upcoming year and to continuously evaluate the opportunities for participation by PEP companies on upcoming projects. The annual goal setting process shall include consultation with the PEP Oversight Committee and affected departments. Additionally, the HRC and departments shall meet on a project-by-project basis throughout the fiscal year to review construction projects and to continuously evaluate the opportunities for participation by PEP companies.

- The HRC shall publish and provide written notice of the PEP goal to the affected Department Director and Engineer, as well as the Public Works Department on its recommendations of the goals for all construction projects presented at the annual goal setting. The HRC shall do the same on a project-by-project basis throughout the year.
- On Sub-recipient and Special Economic Development Construction Projects (by RFPS and Agreements), the HRC shall work jointly with P&CD, ED and the Developer or Subrecipients to establish the goals on an annual and project-by-project basis.
- The goal setting for larger economic development and tax credit development projects shall consider Joint Ventures as a means for ensuring PEP inclusion (i.e., Tech town Project).
**Annual Participation Goals for Goods and Services**

The following factors shall be utilized as part of the methodology for establishing annual aspirational MBE, WBE and SBE goals for the MBE, WBE and SBE programs for goods and services:

- The number of minority, women and small businesses in the State of Ohio;
- The availability of minority, women and small businesses in the State of Ohio willing and able to do business with the city;
- Annual participation figures for minority, women and small businesses in both city contracting and the private marketplace;
- Analysis of disparities between the availability and participation of willing and able minority, women and small businesses in both the city and the private marketplace;
- The findings and conclusions contained in the Second-Generation Disparity Study and reports undertaken by the city, organizations, and governmental entities relating to the Dayton market area;
- Review and analysis of the reports generated by the Council or other city departments in accordance with Policies and Procedures for Outreach and Business Assistance to Subcontractors by the Council; and,
- The initial annual aspirational MBE, WBE and SBE goals for goods and services shall be as follows, indicated in percentage of annual eligible spend for goods and services.
  - Goals for goods: ten percent - MBE; five percent - WBE; 15 percent - SBE.
  - Goals for services (including professional services and other services): 12 percent - MBE; three percent - WBE; 20 percent - SBE.
  - Annual aspirational goals shall be reviewed each year by September 15 by the Council. The annual goal setting process shall include consultation with the PEP Oversight Committee.
  - Goals are only intended to be benchmarks for evaluating overall performance of the program on an annual basis. These participation goals are not and shall not be quotas.
  - For purposes of determining or satisfying annual participation goals, only participation of MBEs, WBEs and SBEs certified by the Executive Director of the Council or his/her designee, or a Council-approved certification agency, shall be considered.

**Bid Submission Requirements for Contracts Subject to PEP Goals**

- Where a contract provides a goal for MBE, WBE or SBE participation, the Executive Director of the Council, or his/her designee, shall recommend a bidder be awarded a contract only where the bidder has demonstrated good faith efforts to meet the designated goal. The award of the contract will be conditioned upon satisfaction of the requirements established by the City.
- Where a bidder fails to meet MBE, WBE or SBE goals, and fails to request a waiver and sufficiently demonstrate Good Faith Efforts to meet MBE, WBE or SBE goals, as defined in these Program Policies and Procedures, the Executive Director of the Council, or his/her designee, shall not recommend the bidder be awarded the contract.
Counting Toward Goals

A prime bidder is required to meet the goal or demonstrate Good Faith Efforts for subcontracting of minority-owned, women-owned or Small Business Enterprises (PEP) as set by the Executive Director of the Council, or his/her designee. When a PEP participates in a contract, only the value of the work actually performed by the PEP toward the goals shall be counted towards the goal.

- A PEP does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of PEP participation. In determining whether a PEP is such an extra participant, the Executive Director of the Council, or his/her designee, will examine similar transactions, particularly those in which PEPs do not participate.
- If a PEP does not perform or exercise responsibility for at least thirty (30) percent of the total cost of its contract with its own work force, or the PEP subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, the Executive Director of the Council, or his/her designee, shall presume that it is not performing a commercially useful function.
- When a PEP is presumed not to be performing a commercially useful function as provided in Section 3 herein, the PEP may present evidence to rebut this presumption. The Executive Director of the Council, or his/her designee, may determine that the business is performing a commercially useful function given the type of work involved and normal industry practices.

Good Faith Efforts

- To demonstrate sufficient “good faith efforts” to meet the PEP contract goals, upon request by the Executive Director of the Council, or his/her designee, a bidder shall document the steps it has taken to obtain PEP participation. Bidders must earn at least seventy-five (75) points from the good faith efforts listed below for their bid to be considered responsive. A representative sample of good faith efforts with point values included is in Appendix A on the Waiver Request Form.
- In determining whether a bidder has made good faith efforts, the Executive Director of the Council, or his/her designee, may take into account the performance of other bidders in meeting the contract. For example, when the apparent successful lowest and best bidder fails to meet the contract goal, but others meet it, the Executive Director of the Council, or his/her designee, may reasonably raise the question of whether, with additional reasonable efforts, the apparent successful bidder could have met the goal.
- If the apparent successful bidder fails to meet the goal but meets or exceeds the average PEP participation obtained by other bidders, the Executive Director of the Council, or his/her designee, may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts.

Goods

The Annual Goal setting process for Goods is as follows:

- Each July a report summarizing the City’s spend by Commodity shall be prepared by the ITS department for the previous twelve months spend and presented to HRC and Purchasing.
The report will be reviewed by HRC to determine the commodity areas in which there is capacity in the market through Certified Companies (MBE, WBE, SBE) and to scrub the data to determine which spend areas are not included in the total spend (i.e. County or State fees).

The analysis by HRC will be presented to the Division of Procurement to review the upcoming known bidding opportunities and expiring Price Agreements.

The final review by HRC and Procurement shall be presented to the PEP Oversight Committee for recommendation of the Annual Aspirational Goals for PEP companies.

The PEP Oversight committee will provide feedback and recommendations.

The HRC will then set the final Annual Goal for the following years spend areas.

The Annual Goals will then be published to Departments and added to the Procurement Bid language.

Services (Including Professional Services)

The Annual Goal setting process for Services is as follows:

- Each July a report summarizing the City’s spend by Commodity shall be prepared by the IT Division of the Department of Central Services for the previous twelve months spend and presented to HRC and Purchasing.
- The report will be review by HRC to determine the commodity areas in which there is capacity in the market through Certified Companies (MBE, WBE, SBE).
- The analysis by HRC will be presented to the Division of Procurement, and/or City Departments to review the upcoming known bidding opportunities and expiring Price Agreements or Contracts.
- The final review by HRC and Procurement shall be presented to the PEP Oversight Committee for recommendation of the Annual Aspirational Goals for PEP companies.
- The PEP Oversight committee will provide feedback and recommendations.
- The HRC will then set the final Annual Goal for the following years spend areas.
- The Annual Goals will then be published to Departments and added to the Procurement Bid language.

3.4.8 AFFIRMATIVE ACTION ASSURANCE PROGRAM

The Affirmative Action Assurance Program (AAA) was also an important part of the policy review. As part of the disparity study MGT will be making recommendations for changes and revisions to improve the effectiveness of AAA and increase legal compliance. However, the policy review is limited primarily to provisions related to contract compliance and vendor approval. Key provisions from the AAA Policies and Procedures Manual are presented in the sections which follow.

The HRC and Finance Department may issue a favorable AAA determination in four ways:

1. The HRC may approve the Company’s AAA Plan for one year. This allows the company to be entered into the City’s financial and procurement systems as an Approved Vendor, and City
agencies and departments may complete contracts and other payment obligations with the entity, unimpeded, for the entire AAA approval period.

2. The HRC may issue a Contract Compliance Review (CCR) Approval after the HRC has conducted a scheduled review of an Approved Vendor. These Compliance Reviews are conducted on at least an annual basis.

3. The HRC may determine that the entity or vendor is such that it is exempt from the AAA Process, and it is therefore placed in Approved Vendor status in the financial and procurement systems. Examples of instances when a company may be determined to be Exempt are outlined below in Section II.

4. The HRC may determine that the entity and the nature of the transaction is such that it is an exception from the AAA Process. This determination gives the HRC or HRC’s designee the ability to place the entity in an Approved Vendor status only for that particular transaction. Examples of instances when a company may be Excepted are outlined below in Section II.

The HRC monitors an entity’s ongoing approved vendor status through a CCR. CCRs are conducted at scheduled intervals on at least an annual basis for each Approved Vendor. An unsatisfactory or failed compliance review (for a prior Approved Vendor) may cause the City’s financial and procurement systems to discontinue or suspend the processing of certain contracts, purchase orders and other transactions with that entity.

The HRC shall work collaboratively to ensure that the AAA and Compliance Review Processes are efficient and that they contribute to the City’s long-held value of ensuring equal employment opportunity while optimizing the City’s ability to do business.

AAA Approval and Duration

Entities must be AAA Approved or will be barred from awards of contractual obligations by the City. Prospective applicants’ failure to obtain AAA approval or renewal may result in forfeiture of contract award. AAA approval will expire twelve (12) months after approval in accordance with the Ohio Revised Code of General Ordinances (ORCGO). Upon approval, the entity will be placed, or remain, on the City’s Approved Vendor’s List for one year. This will enable the entity to do business with the City of Dayton, and any and all other entities for which the City’s HRC provides AAA compliance monitoring and assurance.

Applicability of AAA Policy

The HRC, Procurement, and Finance Departments may identify certain exemptions or exceptions to the AAA Policy requirements while continuing to maintain the City’s long-held value of ensuring equal employment opportunity.

A. AAA Exemptions (Entities that are not subject to AAA):

The HRC shall determine that the entity or vendor is exempt from the AAA Process and that entity shall be placed in Approved Vendor status in the City’s financial and procurement systems. Exemptions shall be provided for the following entities/vendors and the City’s financial and procurement systems shall allow transactions:
1. Government Entities

2. Entities that receive Payroll deduction payments. Example: United Way, United Negro College Fund, Garnishment Agencies, etc.

3. City of Dayton Employees

4. Memberships and Subscriptions to Professional Organizations (Example: American Payroll Association, GFOA, BNA Payroll Library, etc.)

The HRC is authorized to determine additional instances when it is appropriate to exempt an entity and is authorized to provide that exemption and/or to delegate that authority.

**Contract Compliance Review (CCR) Approval (for Approved Vendors)**

A CCR is conducted for all approved entities in the City’s financial and procurement system(s) at least annually. Compliance Review letters are sent to all Approved Entities, along with a CCR Form, 6 weeks prior to the expiration of their current AAA or CCR approval period (see, Appendix A).

If the CCR Form is not approved, the Compliance Officer sends a Compliance Denial Letter to the entity stating the reason(s). The HRC is required to offer assistance to the entity to better develop its AA Policy and attain approved status. If the entity returns an amended review form and is compliant, the Compliance Officer may issue an approval letter for a designated period up to one year.

**Considerations for Approval and non-approval and Six-Month Review Approvals**

1. Considerations for Decisions of AAA and CCR

The HRC shall review entities with which the City intends to contract whose employee demographics are identified by R.C.G.O. Section 35.14, 35.15 as those against whom employment discrimination shall not occur based upon comparison to the population and other demographics in the entity’s MSA.

Larger companies (50 or more employees) that employ few or no individuals whose demographics are identified by R.C.G.O. Section 35.14, 35.15, and 35.16 as those against whom employment discrimination shall not occur based upon comparison to the population and other demographics in the entity’s MSA may be given consideration for approval if the HRC determines that other relative factors (e.g., improved demographics, improved recruitment procedures) warrant consideration.

The CCR form is reviewed, and if approved, the entity will be placed upon, or remain on the City’s Approved Vendor’s List in the City’s financial and procurement systems(s).

2. HRC Process for Six Month Review Approvals

Entities that are determined by the HRC to be deficient in attaining or maintaining its AAA policy may be given conditional approval by the Compliance Officer. In these instances, approval is granted for six months rather than the standard one-year approval. This is intended to provide for improvement in the entity’s compliance with its policy, additional review from the HRC and additional opportunities for the HRC to offer assistance to the entity.
3.5 CONCLUSION

The PEP was established to help focus and coordinate the city’s efforts to address equal access to procurement opportunities. The PEP reflects the City’s desire to create more opportunities for the inclusion and participation of minority and women vendors by establishing an organizational function responsible for coordinating and collaborating with purchasing and other departments as well as reaching out to minority and women vendors. In reviewing PEP’s role and scope, MGT recognized it is a valuable resource to the Procurement Division and other city departments on issues pertaining to equal access to procurement opportunities. Keeping departments informed about opportunities to utilize minority and women vendors, conducting outreach to educate and inform the minority and women business community about doing business with the city, and providing information about contracting and procurement opportunities are key strategies that have a significant impact on equal access to procurement opportunities. Externally as well as internally the ultimate goal is to improve and increase participation and minimize barriers to participation. Internally most of the mechanisms to support PEP are in place based on provisions in the City Code and the policy documents reviewed by MGT. Given MGT’s experience, the City by far has more in place in terms of policies, directives, and plans to address equity and access to procurement opportunities than any other local government MGT has worked with in the past two decades.

In summary, current efforts underscore the city’s urgency to eliminate lack of equal access. Based on the discussions and meetings conducted by MGT, there is recognition that increasing participation of minority- and women-owned businesses is an organization-wide shared responsibility and is not solely the responsibility of the Procurement Division or HRC. As such, the following is important in achieving greater procurement equity:

- Continuously encouraging participation of minority- and women-owned businesses in all procurement and contracting. Encouraging participation in this context is based upon establishing ongoing one-on-one relationships with vendors and serving as coach/mentor to help identify procurement and contracting opportunities, help navigate the purchasing process, and build relationships with city staff. If effectively carried out, minority vendors who are part of this process are very likely to become advocates and “Ambassadors” for efforts to increase participation in procurement.
- Implementing data systems and processes to monitor and track progress on key performance measures.
- Interacting and communicating with departments and internal end users to provide assistance, advice and support related to ensuring equal access to procurement opportunities.
- Planning and executing outreach activities to promote and encourage participation of minority- and women-owned businesses.

MGT’s policy review focused on equal access to procurement opportunities as a key factor in the city’s efforts to eliminate disparities. MGT’s review clearly shows that the city has detailed policies that govern all aspects of procurement. As mentioned earlier, the City Code and the other source documents reviewed
by MGT provide ample policy guidance and direction for purchasing goods and services. Overall, current policies are sufficient to advance goals related to ensuring equal access to procurement opportunities. As alluded to earlier, compared to other municipalities where MGT has conducted similar studies, current policies are comprehensive and—if consistently applied, enforced, and monitored—should meet goals established by the city. Herein lies the challenge: the extent to which policies are translated into action and consistently operationalized in a manner that result in tangible action and progress toward equal access and eliminating disparities. In other words, there is no absence of policy direction—the key variable for moving forward will be consistently operationalizing what is currently in place.

MGT’s evaluation and review uncovered significant opportunities to “move the needle” on contracting equity and eliminating disparities. In moving the needle, the major question is how key players can, including the Procurement Division, HRC and other City departments work collaboratively to address procurement equity. From MGT’s perspective there is a huge benefit for these organizational units to work together in a concerted and comprehensive effort in reaching out to minority and women vendors to provide assistance and information to facilitate equal access. The extent to which the city is able to improve participation will be determined by the results and outcomes of working more collaboratively to increase awareness, interest, and participation in city contracting and procurement. As such, efforts must be continuous, highly visible, and conducted on a regular basis if participation and utilization is to be positively impacted.
CHAPTER 4. MARKET AREA AND UTILIZATION ANALYSIS

2019 Third Generation Disparity Study

City of Dayton
4.1 INTRODUCTION

This chapter presents the results of MGT Consulting Group’s (MGT) market area and utilization analyses of firms used by the City of Dayton, OH (City), for procurements between January 1, 2013 and December 31, 2017. The market area is essential to establishing the universe of available vendors and spending, as well as if there was any disparate treatment of firms. The specific procurement categories analyzed were Construction, Architecture & Engineering, Professional Services, Other Services, and Goods & Supplies.

4.2 DATA COLLECTION AND MANAGEMENT

To identify appropriate data for the market area analysis and subsequent availability, utilization, and disparity analyses, MGT conducted data assessment interviews with City staff knowledgeable about the prime contract, subcontractor, and vendor data in order to identify the most appropriate data sources to use for the study. Based on the data assessment interviews and follow-up discussions with City staff, it was agreed that the City’s Banner system maintained the most comprehensive set of expenditure data. Upon receipt of data from Banner, MGT compiled and reconciled the data to develop a Master Prime file. MGT employed a “cleaning and parsing” data process which included updating missing elements or data gaps to conduct the study’s analyses and indicating data which should be excluded from the analyses. Data gaps included, but were not limited to, reassigning and updating firms’ locations, business ownership classification (race, ethnicity, and gender), and industry classification or business category.

For the subcontractor data, MGT collected data from the City’s CityBots system and Excel tracking reports. Like the Master Prime file, MGT cleaned and parsed data that included updating missing elements or data gaps.

4.2.1 STUDY PERIOD

MGT analyzed expenditures between January 1, 2013 and December 31, 2017.

4.2.2 PROCUREMENT CATEGORIES AND EXCLUSIONS

MGT analyzed the following procurement categories: Construction, Architecture & Engineering, Professional Services, Other Services, and Goods & Supplies. These procurement categories are defined as:

- Construction: Services provided for the construction, renovation, rehabilitation, repair, alteration, improvement, demolition, and excavation of physical structures, excluding the performance of routine maintenance.
• Architecture and Engineering: Architects, professional engineers, firms owned by parties with such designations.
• Professional Services: Financial services, legal services, medical services, educational services, information technology services, other professional services.
• Other Services: Janitorial and maintenance services, uniformed guard services, computer services, certain job shop services, graphics, photographic services, landscaping.
• Goods & Supplies: Purchases of physical items, office goods, miscellaneous building materials, books, equipment, vehicles, computer equipment.

The following types of transactions were excluded from the analysis due to not being considered competitive in nature:
• Transactions that fell outside of the study period.
• Transactions associated with firms located outside the U.S.
• Transactions associated with non-procurement activities.
• Administrative items such as utility payments, leases for real estate, or insurance.
• Salary and fringe benefits, training, parking, or conference fees.
• Transactions associated with nonprofit organizations and governmental agencies.

4.3 MARKET AREA ANALYSIS

As prescribed by Croson and subsequent cases, a disparity study requires definition of a market area to ensure that a relevant pool of vendors is considered in analyzing the availability and utilization of firms. If these boundaries are stretched too far, the universe of vendors becomes diluted with firms with no interest or history in working with the governmental entity, and thus their demographics and experiences have little relevance to actual contracting activity or policy. On the other hand, a boundary set too narrowly risks the opposite circumstance of excluding a high proportion of firms who have contracted with, or bid for work with, the governmental entity, and thus may also skew the prospective analyses of disparity.

4.3.1 METHODOLOGY

Based on Croson guidelines, the relevant market area for the City was determined to be the geographic areas from which the majority of its purchases are procured which included those counties located within the Dayton-Springfield-Sydney, OH Combined Statistical Area (CSA).184

The choice of counties as the unit of measurement is based on the following:

• The courts have accepted counties as a standard geographical unit of analysis in conducting equal employment and disparity analyses.

184 The Dayton Combined Statistical Area includes the following counties: Champaign, Clark, Darke, Greene, Miami, Montgomery, and Shelby.
County boundaries are externally determined and, hence, are free from any researcher bias that might result from any arbitrary determinations of boundaries of geographical units of analysis.

Census data and other federal and county data are routinely collected and reported using county boundaries.

**Overall Market Area.** To determine the full extent of the market area in which the City of Dayton utilized firms, MGT determined geographic locations of utilized vendors by their county jurisdictions. The overall market area presents the total dollars spent for each procurement category included within the scope of the study.

**Relevant Market Area.** Once the overall market area was established, the relevant market area was determined by examining geographic areas from which the majority of its purchases are procured. Based on the results of the market area analysis conducted for each business category, the recommended relevant market area includes the seven counties of Champaign, Clark, Darke, Greene, Miami, Montgomery, and Shelby, within the Dayton-Springfield-Sydney, OH CSA. This recommendation expands the market area from the City’s previous disparity study\(^{185}\) and current Procurement Enhancement Plan (PEP) Program boundaries.

The dollars expended were summarized by county according to the location of each firm and by the services they provided to the City: Construction, Architecture & Engineering, Professional Services, Other Services, and Goods & Supplies.

### 4.3.2 ANALYSIS AND IDENTIFICATION OF RELEVANT MARKET AREA

As described in the preceding section, an overall market area was first established to account for all the City’s payments, after which more specific regions were analyzed to arrive at a relevant market area to support the goals of the study.

### 4.3.3 OVERALL MARKET

**Figure 4-1** shows that total spend for the City of $568.285 million was awarded to firms disaggregated by industry between January 1, 2013 and December 31, 2017.

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\(^{185}\) City of Dayton Second Generation Disparity Study, 2008.
Table 4-1. The goal of identifying the relevant market area was to identify the majority percentage of spend by the City in each procurement category. Using the Dayton-Springfield-Sydney, OH CSA, the total dollars and percentage of spend is as follows:

- 61.12 percent of the dollars awarded in Construction.
- 72.38 percent of the dollars awarded in Architecture & Engineering.
- 67.23 percent of the dollars awarded in Professional Services.
- 55.28 percent of the dollars awarded in Other Services.
- 49.29 percent of the dollars awarded in Goods & Supplies.

In today’s climate, Goods & Supplies are purchased from larger national-based companies than in previous years. The market area is based on overall spending; therefore, Goods & Supplies does not affect the outcome.
## TABLE 4-1.
MARKET AREA ANALYSIS, DISTRIBUTION OF DOLLARS BY BUSINESS CATEGORY, INSIDE & OUTSIDE THE DAYTON-SPRINGFIELD-SYDNEY, OH CSA
CITY OF DAYTON MARKET AREA

<table>
<thead>
<tr>
<th>Business Category</th>
<th>Inside Dayton CSA Market Area</th>
<th>Outside Dayton CSA Market Area</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONSTRUCTION</strong></td>
<td>$99,844,508.47</td>
<td>$58,996,183.45</td>
<td>62.86%</td>
</tr>
<tr>
<td><strong>CONSTRUCTION, TOTAL</strong></td>
<td>$158,840,691.92</td>
<td></td>
<td>100.00%</td>
</tr>
<tr>
<td><strong>ARCHITECTURE &amp; ENGINEERING</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inside Dayton CSA Market Area</td>
<td>$45,809,303.84</td>
<td>$17,484,351.05</td>
<td>72.38%</td>
</tr>
<tr>
<td><strong>A&amp;E, TOTAL</strong></td>
<td>$63,293,654.89</td>
<td></td>
<td>100.00%</td>
</tr>
<tr>
<td><strong>PROFESSIONAL SERVICES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inside Dayton CSA Market Area</td>
<td>$56,379,769.24</td>
<td>$24,935,825.72</td>
<td>69.33%</td>
</tr>
<tr>
<td><strong>PROFESSIONAL SERVICES, TOTAL</strong></td>
<td>$81,315,594.96</td>
<td></td>
<td>100.00%</td>
</tr>
<tr>
<td><strong>OTHER SERVICES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inside Dayton CSA Market Area</td>
<td>$66,882,416.61</td>
<td>$54,059,226.57</td>
<td>55.30%</td>
</tr>
<tr>
<td><strong>OTHER SERVICES, TOTAL</strong></td>
<td>$120,941,643.18</td>
<td></td>
<td>100.00%</td>
</tr>
<tr>
<td><strong>GOODS &amp; SUPPLIES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inside Dayton CSA Market Area</td>
<td>$71,008,018.25</td>
<td>$72,885,099.32</td>
<td>49.35%</td>
</tr>
<tr>
<td><strong>GOODS &amp; SUPPLIES, TOTAL</strong></td>
<td>$143,893,117.57</td>
<td></td>
<td>100.00%</td>
</tr>
<tr>
<td><strong>ALL BUSINESS CATEGORIES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inside Dayton CSA Market Area</td>
<td>$339,924,016.41</td>
<td>$228,360,686.11</td>
<td>59.82%</td>
</tr>
<tr>
<td><strong>ALL BUSINESS CATEGORIES, TOTAL</strong></td>
<td>$568,284,702.52</td>
<td></td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Source: MGT developed a Master Prime Database based on city of Dayton payments between January 1, 2013, and December 31, 2017.

### 4.3.4 MARKET AREA CONCLUSIONS

Based on the market area analysis of the City’s procurement activity, it was determined that the region encompassing Champaign, Clark, Darke, Greene, Miami, Montgomery, and Shelby counties will be used as the market area for the City. MGT’s justification for proposing these counties is that they represent a majority of the City’s expenditures determined by the firms’ locations, 59 percent. It also establishes a “reasonable” geographic area in which vendors that are interested in doing work for the City are located. The following section describes the results of this utilization analysis for the City within the relevant market area.
4.4 UTILIZATION ANALYSIS

The utilization analysis presents a summary of contract payments and subcontract awards within the scope of the study and an initial assessment of the inclusion of M/WBEs in the City’s contracting and procurement activities. Analysis of this data is broken down by the procurement categories of Construction, Architecture & Engineering, Professional Services, Other Services, and Goods & Supplies, encompasses payments between January 1, 2013 and December 31, 2017, and is based on the relevant market area defined as described in the preceding sections of this chapter.

The utilization analysis is compiled for the dollars paid to primes located within the market area (excluding all subcontracting payments, or “pure primes”), and subcontractors within the market area.

MGT identified M/WBE status, MGT collected vendor classification lists from the City, other public entities, and other relevant vendor lists containing M/WBE status of firms. MGT then created a comprehensive list which was used to flag M/WBEs in the utilization analysis.

4.4.1 CLASSIFICATION OF FIRMS

Firms included in the utilization analysis have been assigned to business owner classifications according to the definitions provided below.\(^{186}\)

- **M/WBE Firms.** In this study, businesses classified as minority- and women-owned firms (M/WBE) are firms that are at least 51 percent owned and controlled by members of one of five groups: African Americans, Asian Americans, Hispanic Americans, Native Americans, or Nonminority Women. These groups were defined according to the United States (U.S.) Census Bureau as follows:
  - **African Americans:** U.S. citizens or lawfully admitted permanent residents having an origin in any of the black racial groups of Africa.
  - **Asian Americans:** U.S. citizens or lawfully admitted permanent residents who originate from the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands.
  - **Hispanic Americans:** U.S. citizens or lawfully admitted permanent residents of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish or Portuguese cultures or origins regardless of race.
  - **Native Americans:** U.S. citizens or lawfully admitted permanent residents who originate from any of the original peoples of North America and who maintain cultural identification through tribal affiliation or community recognition.
  - **Nonminority Women:** U.S. citizens or lawfully admitted permanent residents who are non-Hispanic white women. Minority women were included in their respective minority category.

- **Total Minority Firms.** All minority-owned firms, regardless of gender.

\(^{186}\) Business ownership classification was based on the race, ethnicity, and gender classification of the owner during the study period.
• **Non-M/WBE Firms.** Firms that were identified as nonminority male or majority-owned were classified as non-M/WBE firms. If there was no indication of business ownership, these firms were also classified as non-M/WBE firms.

### 4.4.2 OVERALL UTILIZATION

Table 4-2 shows the prime M/WBE utilization amounted to 8.10 percent of total payments. Detailed analyses showing the prime utilization of firms by business ownership classification and year are presented in Sections 4.4.3 and 4.4.4.

#### TABLE 4-2.

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>TOTAL DOLLARS ($)</th>
<th>TOTAL PERCENT (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Americans</td>
<td>$3,350,980.46</td>
<td>0.99%</td>
</tr>
<tr>
<td>Asian Americans</td>
<td>$56,973.70</td>
<td>0.02%</td>
</tr>
<tr>
<td>Hispanic Americans</td>
<td>$49,109.62</td>
<td>0.01%</td>
</tr>
<tr>
<td>Native Americans</td>
<td>$0.00</td>
<td>0.00%</td>
</tr>
<tr>
<td><strong>TOTAL MINORITY FIRMS</strong></td>
<td><strong>$3,457,063.78</strong></td>
<td><strong>1.02%</strong></td>
</tr>
<tr>
<td>Nonminority Women</td>
<td>$24,071,730.70</td>
<td>7.08%</td>
</tr>
<tr>
<td><strong>TOTAL M/WBE FIRMS</strong></td>
<td><strong>$27,528,794.48</strong></td>
<td><strong>8.10%</strong></td>
</tr>
<tr>
<td><strong>TOTAL NON-M/WBE FIRMS</strong></td>
<td><strong>$312,395,221.93</strong></td>
<td><strong>91.90%</strong></td>
</tr>
<tr>
<td><strong>TOTAL FIRMS</strong></td>
<td><strong>$339,924,016.41</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: MGT developed a Master Prime Database based on city of Dayton payments between January 1, 2013, and December 31, 2017.

### 4.4.3 PRIME UTILIZATION BY PROCUREMENT CATEGORY

The prime utilization analysis by each procurement category and by business ownership classification is illustrated in Table 4-3. Native American firms did not receive prime contracts in any of the procurement categories during the study period. African Americans and Nonminority Women had the greatest percentage of prime utilization at .99 percent and 7.08 percent, respectively. Asian Americans received 0.02 percent and Hispanic Americans received 0.01 percent of the dollars in the market area. For further review of M/WBE prime utilization by category and year, refer to Appendix D, Prime Utilization Analyses.
### Table 4-3
**Utilization Analysis by Business Ownership Classification, Total by Procurement Categories – Prime Only**

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL</th>
<th>Construction</th>
<th>A&amp;E</th>
<th>Professional Services</th>
<th>Other Services</th>
<th>Goods &amp; Supplies</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Americans</td>
<td>$3,350,980.46</td>
<td>$1,931,555.19</td>
<td>$15,736.00</td>
<td>$12,554.00</td>
<td>$319,417.30</td>
<td>$1,071,717.97</td>
</tr>
<tr>
<td>Asian Americans</td>
<td>$56,973.70</td>
<td>$44,974.35</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$11,999.35</td>
</tr>
<tr>
<td>Hispanic Americans</td>
<td>$49,109.62</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$49,109.62</td>
</tr>
<tr>
<td>Native Americans</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>TOTAL MINORITY FIRMS</td>
<td>$3,457,063.78</td>
<td>$1,976,529.54</td>
<td>$15,736.00</td>
<td>$12,554.00</td>
<td>$368,526.92</td>
<td>$1,083,717.32</td>
</tr>
<tr>
<td>Nonminority Women</td>
<td>$24,071,730.70</td>
<td>$13,329,651.10</td>
<td>$2,976,327.39</td>
<td>$1,580,299.93</td>
<td>$4,008,119.28</td>
<td>$2,177,333.00</td>
</tr>
<tr>
<td>TOTAL M/WBE FIRMS</td>
<td>$27,528,794.48</td>
<td>$15,306,180.64</td>
<td>$2,992,063.39</td>
<td>$1,592,853.93</td>
<td>$4,376,646.20</td>
<td>$3,261,050.32</td>
</tr>
<tr>
<td>TOTAL NON-M/WBE FIRMS</td>
<td>$312,395,221.93</td>
<td>$84,538,327.83</td>
<td>$42,817,240.45</td>
<td>$54,786,915.31</td>
<td>$62,505,770.41</td>
<td>$67,746,967.93</td>
</tr>
<tr>
<td>TOTAL FIRMS</td>
<td>$339,924,016.41</td>
<td>$99,844,508.47</td>
<td>$45,809,303.84</td>
<td>$56,379,769.24</td>
<td>$66,882,416.61</td>
<td>$71,008,018.25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL (%)</th>
<th>Construction (%)</th>
<th>A&amp;E (%)</th>
<th>Professional Services (%)</th>
<th>Other Services (%)</th>
<th>Goods &amp; Supplies (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Americans</td>
<td>0.99%</td>
<td>1.93%</td>
<td>0.03%</td>
<td>0.02%</td>
<td>0.48%</td>
<td>1.51%</td>
</tr>
<tr>
<td>Asian Americans</td>
<td>0.02%</td>
<td>0.05%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.02%</td>
</tr>
<tr>
<td>Hispanic Americans</td>
<td>0.01%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.07%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Native Americans</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>TOTAL MINORITY FIRMS</td>
<td>1.02%</td>
<td>1.98%</td>
<td>0.03%</td>
<td>0.02%</td>
<td>0.55%</td>
<td>1.53%</td>
</tr>
<tr>
<td>Nonminority Women</td>
<td>7.08%</td>
<td>13.35%</td>
<td>6.50%</td>
<td>2.80%</td>
<td>5.99%</td>
<td>3.07%</td>
</tr>
<tr>
<td>TOTAL M/WBE FIRMS</td>
<td>8.10%</td>
<td>15.33%</td>
<td>6.53%</td>
<td>2.83%</td>
<td>6.54%</td>
<td>4.59%</td>
</tr>
<tr>
<td>TOTAL NON-M/WBE FIRMS</td>
<td>91.90%</td>
<td>84.67%</td>
<td>93.47%</td>
<td>97.17%</td>
<td>93.46%</td>
<td>95.41%</td>
</tr>
</tbody>
</table>

Source: MGT developed a Master Prime Database based on city of Dayton payments between January 1, 2013, and December 31, 2017.

### 4.5 Prime Construction Contracts with Sub Goals vs. Without Goals

Minority- and Women-owned firms are typically utilized as subcontractors in construction contracts for the City, as such it is important to analyze prime construction contracts with sub goals versus those without goals. Doing so allows for an understanding of how minority- and women-owned firms are faring in the utilization of subs. MGT analyzed 225 prime construction contracts, of which 36 had sub goals assigned to them. Table 4-4 shows that M/WBEs were utilized at higher rates for construction contracts with goals, 30.85 percent, versus those without goals, 6.75 percent. Individually, Women-owned firms were utilized for construction contracts with goals at 29.15 percent and Minority-owned firms at 1.71 percent.
### TABLE 4-4.
**UTILIZATION ANALYSIS BY BUSINESS OWNERSHIP CLASSIFICATION, PRIME CONSTRUCTION CONTRACTS WITH AND WITHOUT SUB GOALS**

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL ($)</th>
<th>With Goals ($)</th>
<th>Without Goals ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Americans</td>
<td>$1,931,555.19</td>
<td>$668,604.84</td>
<td>$1,262,950.35</td>
</tr>
<tr>
<td>Asian Americans</td>
<td>$44,974.35</td>
<td>$0.00</td>
<td>$44,974.35</td>
</tr>
<tr>
<td>Hispanic Americans</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Native Americans</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>TOTAL MINORITY FIRMS</td>
<td>$1,976,529.54</td>
<td>$668,604.84</td>
<td>$1,307,924.70</td>
</tr>
<tr>
<td>Nonminority Women</td>
<td>$13,329,651.10</td>
<td>$8,934,947.95</td>
<td>$4,394,703.15</td>
</tr>
<tr>
<td>TOTAL M/WBE FIRMS</td>
<td>$15,306,180.64</td>
<td>$9,603,552.79</td>
<td>$5,702,627.85</td>
</tr>
<tr>
<td>TOTAL NON-M/WBE FIRMS</td>
<td>$84,538,327.83</td>
<td>$21,688,782.53</td>
<td>$62,849,545.30</td>
</tr>
<tr>
<td>TOTAL FIRMS</td>
<td>$99,844,508.47</td>
<td>$31,292,335.32</td>
<td>$68,552,173.15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL (%)</th>
<th>With Goals (%)</th>
<th>Without Goals (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Americans</td>
<td>1.93%</td>
<td>2.14%</td>
<td>1.84%</td>
</tr>
<tr>
<td>Asian Americans</td>
<td>0.05%</td>
<td>0.00%</td>
<td>0.07%</td>
</tr>
<tr>
<td>Hispanic Americans</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Native Americans</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>TOTAL MINORITY FIRMS</td>
<td>1.98%</td>
<td>2.14%</td>
<td>1.91%</td>
</tr>
<tr>
<td>Nonminority Women</td>
<td>13.35%</td>
<td>28.55%</td>
<td>6.41%</td>
</tr>
<tr>
<td>TOTAL M/WBE FIRMS</td>
<td>15.33%</td>
<td>30.69%</td>
<td>8.32%</td>
</tr>
<tr>
<td>TOTAL NON-M/WBE FIRMS</td>
<td>84.67%</td>
<td>69.31%</td>
<td>91.68%</td>
</tr>
</tbody>
</table>

### 4.6 PAYMENT THRESHOLD ANALYSIS

Analysis of utilization by payment size, referred to as a threshold analysis, can reveal current circumstances regarding the observed potential of M/WBE vendors to perform jobs of different scales (as measured by dollar value) within the defined procurement categories. These insights should not be viewed as a boundary or hard limitation on M/WBE utilization. Capacity obstacles in some industries, such as in some domains of construction, are readily overcome as staff expansion can be accomplished rather quickly (highly elastic), while in others, a significant expansion in the scale of the business can require more time and investment, and thus may present a more persistent issue (less elastic).

Execution of a payment threshold analysis requires identification of progressively larger bands of payments to observe where variation in vendor participation may be impacted based on the size of the payment. MGT’s approach to this analysis entailed the following:

- Examination of the mean (average) payment values of M/WBE awards as well as payment values within one and two standard deviations of this M/WBE mean.
- Examination of the mean (average) payment values of all awards as well as payment values within one and two standard deviations of this total mean.
• Two standard deviations, equivalent to a 95 percent confidence interval, has consistently been accepted by courts with regard to the statistical significance of disparities, and thus can serve for a key benchmark for this analysis, as well.

Table 4-5 depicts the incremental and cumulative proportions of payments by size (threshold) for all procurement categories. Mean payment award sizes and the first and second standard deviations beyond the mean are highlighted for both M/WBEs and the total universe of payments during the study period.

| TABLE 4-4. PAYMENT AWARDS TO M/WBES VS. FULL UNIVERSE ALL PROCUREMENT CATEGORIES |
|---------------------------------|-----------------|-----------------|
|                                  | M/WBE Awards    | All Awards      |
| n=                              | 1,747           | 31,623          |
| Mean (μ)                        | $15,758         | $10,604         |
| μ + 1 Std. Deviation (1 σ)      | $68,186         | $68,282         |
| μ + 2 Std. Deviations (2 σ)     | $152,131        | $147,168        |
| Maximum                         | $654,108        | $2,941,140      |

Table 4-6 shows payments size categories (thresholds) based on the values depicted in Table 4-5.

<table>
<thead>
<tr>
<th>TABLE 4-5. PAYMENT THRESHOLDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>THRESHOLDS</td>
</tr>
<tr>
<td>&lt;= $50K</td>
</tr>
<tr>
<td>&gt; $50K, &lt;= $100K</td>
</tr>
<tr>
<td>&gt; $100K, &lt;= $500K</td>
</tr>
<tr>
<td>&gt; $500K, &lt;= $750K</td>
</tr>
<tr>
<td>&gt; $750K, &lt;= $1M</td>
</tr>
<tr>
<td>&gt; $1M, &lt;= $3M</td>
</tr>
<tr>
<td>&gt; $3M</td>
</tr>
</tbody>
</table>

\[TABLE\]

\[TABLE\]
Figure 4-2 shows that M/WBEs have only been able to win awards across the four smallest sized categories. The highest percentage of utilization of M/WBE firms is 12.53 percent in the category for awards in the $100 thousand to $500 thousand range. The lowest utilization of M/WBE occurred in the up to $50 thousand range at 6.94 percent.

FIGURE 4-2.
PERCENTAGE OF UTILIZATION OF M/WBE FIRMS BY PAYMENT AWARD SIZE/THRESHOLD DOLLAR RANGES
ALL PROCUREMENT CATEGORIES
Figure 4-3 shows that M/WBEs have been able to win a share of awards of increasing values spanning across four of the six procurement categories. M/WBE utilization is most prominent in the Construction category for each of the payment ranges. Professional Services is utilized at 6 percent in payments up to $50,000 but is at, or near, zero percent in all other payment ranges. Construction is the only category with significant utilization above $1,000,000.

### Table 4-7

Table 4-7 depicts the incremental and cumulative proportions of payments by size (threshold) for the Construction procurement category. Mean payment award sizes and the first and second standard deviations beyond the mean are highlighted for both M/WBEs and the total universe of payments during the study period. MGT observed that:

- Over 72 percent of all payments in this sector had a total value less than or equal to the mean of M/WBE payment awards.
- Over 88 percent of all payment awards in this sector were within one standard deviation of the M/WBE mean payment value.
- Over 94 percent of all payment awards in this sector were within two standard deviations of the M/WBE mean payment value.
- Over 98 percent of all payment awards in this sector were less than or equal to the largest observed payment awarded to an M/WBE.
### TABLE 4-6
CONSTRUCTION PAYMENT AWARDS TO M/WBES VS. FULL UNIVERSE

<table>
<thead>
<tr>
<th>Payment Thresholds / $ Values Up to</th>
<th>Incremental % of Awards</th>
<th>Cumulative % of Awards</th>
<th>Increment % of Awards</th>
<th>Cumulative % of Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;= $50K</td>
<td>$50,000</td>
<td>66.06%</td>
<td>66.06%</td>
<td>67.62%</td>
</tr>
<tr>
<td>M/WBE μ</td>
<td>$69,259</td>
<td>4.52%</td>
<td>70.59%</td>
<td>5.15%</td>
</tr>
<tr>
<td>&lt;= $100K</td>
<td>$79,382</td>
<td>2.71%</td>
<td>73.30%</td>
<td>2.78%</td>
</tr>
<tr>
<td>Overall μ</td>
<td>$100,000</td>
<td>4.52%</td>
<td>77.83%</td>
<td>3.03%</td>
</tr>
<tr>
<td>M/WBE μ + 1 σ</td>
<td>$178,799</td>
<td>9.05%</td>
<td>86.88%</td>
<td>10.14%</td>
</tr>
<tr>
<td>Overall μ + 1 σ</td>
<td>$274,776</td>
<td>7.69%</td>
<td>94.57%</td>
<td>5.48%</td>
</tr>
<tr>
<td>M/WBE μ + 2 σ</td>
<td>$288,339</td>
<td>0.00%</td>
<td>94.57%</td>
<td>0.08%</td>
</tr>
<tr>
<td>Overall μ + 2 σ</td>
<td>$470,170</td>
<td>4.07%</td>
<td>98.64%</td>
<td>2.94%</td>
</tr>
<tr>
<td>&lt;= $500K</td>
<td>$500,000</td>
<td>0.00%</td>
<td>98.64%</td>
<td>0.16%</td>
</tr>
<tr>
<td>M/WBE Max</td>
<td>$654,108</td>
<td>1.36%</td>
<td>100.00%</td>
<td>1.39%</td>
</tr>
<tr>
<td>&lt;= $750K</td>
<td>$750,000</td>
<td>0.25%</td>
<td>99.02%</td>
<td>0.25%</td>
</tr>
<tr>
<td>&lt;= $1M</td>
<td>$1,000,000</td>
<td>0.33%</td>
<td>99.35%</td>
<td>0.33%</td>
</tr>
<tr>
<td>Overall Max</td>
<td>$2,941,140</td>
<td>0.65%</td>
<td>100.00%</td>
<td>0.65%</td>
</tr>
</tbody>
</table>
Graphical characteristics of the distributions of Construction awards to M/WBEs versus the full sector appear in Figure 4-4.

- Each color represents a graphical representation for three categories: M/WBE awards, all payment awards, and thresholds with no M/WBE participation. For example, in this sector, over 98 percent of M/WBE awards occur at or below $500 thousand, while over 97 percent of all awards have values at or below $500 thousand.
- M/WBEs participate in payments ranging up to $654,108, which accounts for 98.77 percent of the full universe of awards in this sector.

![Figure 4-4: Graphical Depictions of Construction Payment Awards to M/WBEs vs. Awards to All Vendors](image-url)
Table 4-8 depicts the incremental and cumulative proportions of payments by size (threshold) for the Architecture & Engineering procurement category. Mean payment award sizes and the first and second standard deviations beyond the mean are highlighted for both M/WBEs and the total universe of payments during the study period. MGT observed that:

- 99.37 percent of all payments in this sector had a total value less than or equal to the mean of M/WBE payment awards.
- 99.77 percent of all payment awards in this sector were within one standard deviation of the M/WBE mean payment value.
- 99.94 percent of all payment awards in this sector were within two standard deviations of the M/WBE mean payment value.
- 99.94 percent of all payment awards in this sector were less than or equal to the largest observed payment awarded to an M/WBE.

### TABLE 4-7.
ARCHITECTURE & ENGINEERING PAYMENT AWARDS TO M/WBES VS. FULL UNIVERSE

<table>
<thead>
<tr>
<th>Payment Thresholds / $ Values Up to:</th>
<th># OF PAYMENTS</th>
<th>M/WBE Awards</th>
<th>All Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=</td>
<td>15</td>
<td>4,751</td>
</tr>
<tr>
<td>Mean (μ)</td>
<td>$199,471</td>
<td>$9,642</td>
<td></td>
</tr>
<tr>
<td>μ + 1 Std. Deviation (1 σ)</td>
<td>$345,508</td>
<td>$48,673.21</td>
<td></td>
</tr>
<tr>
<td>μ + 2 Std. Deviations (2 σ)</td>
<td>$491,545</td>
<td>$87,704</td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>$487,013</td>
<td>$841,086</td>
<td></td>
</tr>
<tr>
<td>Incremental % of Awards</td>
<td>Incremental % of Awards</td>
<td>Cumulative % of Awards</td>
<td>Cumulative % of Awards</td>
</tr>
<tr>
<td>Overall μ</td>
<td>$9,642</td>
<td>20.00%</td>
<td>20.00%</td>
</tr>
<tr>
<td>Overall μ + 1 σ</td>
<td>$48,673</td>
<td>0.00%</td>
<td>20.00%</td>
</tr>
<tr>
<td>&lt;= $500K</td>
<td>$50,000</td>
<td>0.00%</td>
<td>20.00%</td>
</tr>
<tr>
<td>Overall μ + 2 σ</td>
<td>$87,704</td>
<td>0.00%</td>
<td>20.00%</td>
</tr>
<tr>
<td>&lt;= $100K</td>
<td>$100,000</td>
<td>13.33%</td>
<td>33.33%</td>
</tr>
<tr>
<td>M/WBE μ</td>
<td>$199,471</td>
<td>13.33%</td>
<td>46.67%</td>
</tr>
<tr>
<td>M/WBE μ + 1 σ</td>
<td>$345,508</td>
<td>33.33%</td>
<td>80.00%</td>
</tr>
<tr>
<td>M/WBE Max</td>
<td>$487,013</td>
<td>20.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>M/WBE μ + 2 σ</td>
<td>$491,545</td>
<td>0.00%</td>
<td>99.94%</td>
</tr>
<tr>
<td>&lt;= $500K</td>
<td>$500,000</td>
<td>0.00%</td>
<td>99.94%</td>
</tr>
<tr>
<td>&lt;= $750K</td>
<td>$750,000</td>
<td>0.02%</td>
<td>99.96%</td>
</tr>
<tr>
<td>Overall Max</td>
<td>$841,086</td>
<td>0.04%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>
Graphical characteristics of the distributions of Architecture & Engineering awards to M/WBEs versus the full sector appear in Figure 4-5.

- Each color represents a graphical representation for three categories: M/WBE awards, all payment awards, and thresholds with no M/WBE participation. For example, in this sector, 20 percent of M/WBE awards occur at or below the first threshold of $50 thousand or below, while over 95 percent of all awards have values at or below $50 thousand.
- M/WBEs participate in payments ranging up to $487,013, which account for almost 100 percent of the full universe of awards in this sector.

**FIGURE 4-5.**
GRAPHICAL DEPICTIONS OF ARCHITECTURE & ENGINEERING PAYMENT AWARDS TO M/WBES VS. AWARDS TO ALL VENDORS

Cumulative Distribution of Awards by Contract Dollar Size

- M/WBE Awards
- All Awards
- All Awards, no M/WBEs represented
Table 4-9 depicts the incremental and cumulative proportions of payments by size (threshold) for the Professional Services procurement category. Mean payment award sizes and the first and second standard deviations beyond the mean are highlighted for both M/WBEs and the total universe of payments during the study period. MGT observed that:

- Over 79 percent of all payments in this sector had a total value less than or equal to the mean of M/WBE payment awards.
- Over 85 percent of all payment awards in this sector were within one standard deviation of the M/WBE mean payment value.
- Over 89 percent of all payment awards in this sector were within two standard deviations of the M/WBE mean payment value.
- Over 92 percent of all payment awards in this sector were less than or equal to the largest observed payment awarded to an M/WBE.

### TABLE 4-8.
PROFESSIONAL SERVICES PAYMENT AWARDS TO M/WBE VS. FULL UNIVERSE

<table>
<thead>
<tr>
<th>Payment Thresholds / $ Values Up to</th>
<th>Incremental % of Awards</th>
<th>Cumulative % of Awards</th>
<th>Incremental % of Awards</th>
<th>Cumulative % of Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>M/WBE μ</td>
<td>62.88%</td>
<td>62.88%</td>
<td>79.60%</td>
<td>79.60%</td>
</tr>
<tr>
<td>Overall μ</td>
<td>5.24%</td>
<td>68.12%</td>
<td>2.16%</td>
<td>81.76%</td>
</tr>
<tr>
<td>M/WBE μ + 1 σ</td>
<td>13.97%</td>
<td>82.10%</td>
<td>3.90%</td>
<td>85.66%</td>
</tr>
<tr>
<td>M/WBE μ + 2 σ</td>
<td>12.66%</td>
<td>94.76%</td>
<td>3.74%</td>
<td>89.41%</td>
</tr>
<tr>
<td>M/WBE Max</td>
<td>5.24%</td>
<td>100.00%</td>
<td>3.04%</td>
<td>92.45%</td>
</tr>
<tr>
<td>Overall μ + 1 σ</td>
<td>43.549</td>
<td></td>
<td>3.74%</td>
<td>96.19%</td>
</tr>
<tr>
<td>&lt;= $50K</td>
<td>0.61%</td>
<td>96.80%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall μ + 2 σ</td>
<td>78,349</td>
<td>1.58%</td>
<td>98.38%</td>
<td></td>
</tr>
<tr>
<td>&lt;= $100K</td>
<td>0.34%</td>
<td>98.72%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;= $500K</td>
<td>1.20%</td>
<td>99.92%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;= $750K</td>
<td>0.06%</td>
<td>99.98%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Max</td>
<td>1,000,000</td>
<td>0.02%</td>
<td>100.00%</td>
<td></td>
</tr>
</tbody>
</table>
Graphical characteristics of the distributions of Professional Services awards to M/WBEs versus the full sector appear in Figure 4-6.

- Each color represents a graphical representation for three categories: M/WBE awards, all payment awards, and thresholds with no M/WBE participation. For example, in this sector, 100 percent of M/WBE awards occur at or below the first threshold of $50 thousand.
- M/WBEs participate in payments ranging up to $23,588, which accounts for 92.45 percent of the full universe of awards in this sector.

**FIGURE 4-6.**

**GRAPHICAL DEPICTIONS OF PROFESSIONAL SERVICES PAYMENT AWARDS TO M/WBES VS. AWARDS TO ALL VENDORS**

Cumulative Distribution of Awards by Contract Dollar Size
Table 4-10 depicts the incremental and cumulative proportions of payments by size (threshold) for the Other Services procurement category. Mean payment award sizes and the first and second standard deviations beyond the mean are highlighted for both M/WBEs and the total universe of payments during the study period. MGT observed that:

- Over 87 percent of all payments in this sector had a total value less than or equal to the mean of M/WBE payment awards.
- Over 95 percent of all payment awards in this sector were within one standard deviation of the M/WBE mean payment value.
- Over 97 percent of all payment awards in this sector were within two standard deviations of the M/WBE mean payment value.
- Over 99 percent of all payment awards in this sector were less than or equal to the largest observed payment awarded to an M/WBE.

### Table 4-9.
**OTHER SERVICES PAYMENT AWARDS TO M/WBES VS. FULL UNIVERSE**

<table>
<thead>
<tr>
<th>Payment Thresholds / $ Values Up to</th>
<th>Incremental % of Awards</th>
<th>Cumulative % of Awards</th>
<th>Increment % of Awards</th>
<th>Cumulative % of Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall ( \mu )</td>
<td>$9,368</td>
<td>79.87%</td>
<td>79.87%</td>
<td>87.81%</td>
</tr>
<tr>
<td>M/WBE ( \mu )</td>
<td>$9,473</td>
<td>0.00%</td>
<td>79.87%</td>
<td>87.87%</td>
</tr>
<tr>
<td>M/WBE ( \mu + 1 \sigma )</td>
<td>$34,116</td>
<td>15.15%</td>
<td>95.02%</td>
<td>95.74%</td>
</tr>
<tr>
<td>&lt;= $50K</td>
<td>$50,000</td>
<td>1.08%</td>
<td>96.10%</td>
<td>96.89%</td>
</tr>
<tr>
<td>M/WBE ( \mu + 2 \sigma )</td>
<td>$58,758</td>
<td>0.22%</td>
<td>96.32%</td>
<td>97.25%</td>
</tr>
<tr>
<td>Overall ( \mu + 1 \sigma )</td>
<td>$70,878</td>
<td>0.43%</td>
<td>96.75%</td>
<td>97.88%</td>
</tr>
<tr>
<td>&lt;= $100K</td>
<td>$100,000</td>
<td>1.08%</td>
<td>97.84%</td>
<td>98.42%</td>
</tr>
<tr>
<td>Overall ( \mu + 2 \sigma )</td>
<td>$132,388</td>
<td>1.30%</td>
<td>99.13%</td>
<td>98.95%</td>
</tr>
<tr>
<td>M/WBE Max</td>
<td>$268,500</td>
<td>0.87%</td>
<td>100.00%</td>
<td>99.61%</td>
</tr>
<tr>
<td>&lt;= $500K</td>
<td>$500,000</td>
<td>0.15%</td>
<td>99.76%</td>
<td>99.83%</td>
</tr>
<tr>
<td>&lt;= $750K</td>
<td>$750,000</td>
<td>0.07%</td>
<td>99.83%</td>
<td>99.89%</td>
</tr>
<tr>
<td>&lt;= $1M</td>
<td>$1,000,000</td>
<td>0.06%</td>
<td>99.89%</td>
<td>99.89%</td>
</tr>
<tr>
<td>Overall Max</td>
<td>$2,120,392</td>
<td>0.11%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>
Graphical characteristics of the distributions of Other Services awards to M/WBEs versus the full sector appear in Figure 4-7.

- Each color represents a graphical representation for three categories: M/WBE awards, all payment awards, and thresholds with no M/WBE participation. For example, in this sector, 96.10 percent of M/WBE awards and 96.89 percent of the full universe of awards occur at or below $50 thousand.
- M/WBEs participate in payments ranging up to $268,500, which accounts for 99.61 percent of all payment awards in this sector.
Table 4-11 depicts the incremental and cumulative proportions of payments by size (threshold) for the Goods & Supplies procurement category. Mean payment award sizes and the first and second standard deviations beyond the mean are highlighted for both M/WBEs and the total universe of payments during the study period. MGT observed that:

- Over 81 percent of all payments in this sector had a total value less than or equal to the mean of M/WBE payment awards.
- Over 95 percent of all payment awards in this sector were within one standard deviation of the M/WBE mean payment value.
- Over 97 percent of all payment awards in this sector were within two standard deviations of the M/WBE mean payment value.
- Over 99 percent of all payment awards in this sector were less than or equal to the largest observed payment awarded to an M/WBE.

### TABLE 4-10. GOODS & SUPPLIES PAYMENT AWARDS TO M/WBES VS. FULL UNIVERSE

<table>
<thead>
<tr>
<th>Payment Thresholds / $ Values Up to:</th>
<th>Incremental % of Awards</th>
<th>Cumulative % of Awards</th>
<th>Incremental % of Awards</th>
<th>Cumulative % of Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>M/WBE μ</td>
<td>$3,977</td>
<td>85.37%</td>
<td>85.37%</td>
<td>81.55%</td>
</tr>
<tr>
<td>Overall μ</td>
<td>$5,783</td>
<td>4.02%</td>
<td>89.39%</td>
<td>86.19%</td>
</tr>
<tr>
<td>M/WBE μ + 1 σ</td>
<td>$21,616</td>
<td>7.93%</td>
<td>97.32%</td>
<td>95.29%</td>
</tr>
<tr>
<td>Overall μ + 1 σ</td>
<td>$35,938</td>
<td>1.10%</td>
<td>98.41%</td>
<td>96.83%</td>
</tr>
<tr>
<td>M/WBE μ + 2 σ</td>
<td>$39,254</td>
<td>0.12%</td>
<td>98.54%</td>
<td>97.06%</td>
</tr>
<tr>
<td>&lt;= $50K</td>
<td>$50,000</td>
<td>0.12%</td>
<td>98.66%</td>
<td>97.61%</td>
</tr>
<tr>
<td>Overall μ +2 σ</td>
<td>$66,092</td>
<td>0.12%</td>
<td>98.78%</td>
<td>98.10%</td>
</tr>
<tr>
<td>&lt;= $100K</td>
<td>$100,000</td>
<td>0.49%</td>
<td>99.27%</td>
<td>98.92%</td>
</tr>
<tr>
<td>M/WBE Max</td>
<td>$330,728</td>
<td>0.73%</td>
<td>100.00%</td>
<td>99.86%</td>
</tr>
<tr>
<td>&lt;= $500K</td>
<td>$500,000</td>
<td>0.07%</td>
<td>99.93%</td>
<td></td>
</tr>
<tr>
<td>&lt;= $750K</td>
<td>$750,000</td>
<td>0.03%</td>
<td>99.96%</td>
<td></td>
</tr>
<tr>
<td>&lt;= $1M</td>
<td>$1,000,000</td>
<td>0.03%</td>
<td>99.99%</td>
<td></td>
</tr>
<tr>
<td>Overall Max</td>
<td>$1,288,215</td>
<td>0.01%</td>
<td>100.00%</td>
<td></td>
</tr>
</tbody>
</table>
Graphical characteristics of the distributions of Goods & Supplies awards to M/WBEs versus the full sector appear in Figure 4-8.

- Each color represents a graphical representation for three categories: M/WBE awards, all payment awards, and thresholds with no M/WBE participation. For example, in this sector, 98.66 percent of M/WBE payments and 97.61 percent of the full universe of payments fall at or below $50 thousand.
- M/WBEs participate in payments ranging up to $330,728, which accounts for 99.86 percent of the full universe of awards in this sector.

**FIGURE 4-8.**

**GRAPHICAL DEPICTIONS OF GOODS & SUPPLIES PAYMENT AWARDS TO M/WBES VS. AWARDS TO ALL VENDORS**

**4.6.1 UTILIZATION CONCLUSIONS**

The prime utilization analysis shows that M/WBE firms are utilized at substantially lower rates than their non-M/WBE counterparts. Overall, 5.49 percent of the City’s awards went to M/WBE firms, while 94.51 percent went to non-M/WBE firms.

Nonetheless, analysis of payment thresholds showed that M/WBE firms were utilized in four of the six payment thresholds.

**4.7 CONCLUSION**

The prime utilization analysis shows that non-M/WBE firms are utilized at substantially higher rates than their M/WBE counterparts. Further analyzing the individual procurement categories, Construction saw
the highest utilization of M/WBE firms with 15.77 percent. Most of this percentage is attributed to Nonminority Women firms with 13.73 percent of total spend in Construction. Professional Services saw the lowest utilization of M/WBE firms with 2.91 percent. Again, Nonminority Women firms accounted for almost all the M/WBE percentage in this category with 2.89 percent of total spend.

When analyzing construction contracts with sub goals versus those without goals, M/WBEs fared better when there were contracts associated directly with goals. M/WBEs were utilized at higher rates for construction contracts with goals, 30.85 percent, versus those without goals, 6.75 percent. Individually, Women-owned firms were utilized for construction contracts with goals at 29.15 percent and Minority-owned firms at 1.71 percent.

While non-M/WBE utilization is ostensibly quite high on utilization in categories that have been presented in this chapter, the proportion of firms willing and able to provide services to the City are a critical qualifying context in any determinations of disparity. Availability and resulting disparity ratios are presented in Chapter 5, which follows, to provide more definitive conclusions in this respect.
CHAPTER 5. AVAILABILITY AND DISPARITY ANALYSIS

2019 Third Generation Disparity Study

City of Dayton

MGT Consulting Group
5.1 INTRODUCTION

This chapter presents the availability and disparity analyses and results. The availability analysis provides an estimate of the M/WBE ownership status of the pool of vendors that are ready, willing, and able to work with the City of Dayton (City) in its geographic and product marketplaces. The disparity analysis determines whether there is an observed statistically significant difference between the City’s utilization of minority and women-owned firms (M/WBEs) compared to their respective availability. As with prior chapters, this analysis focuses on expenditures in the procurement categories of Construction, Architecture & Engineering, Professional Services, Other Services, and Goods & Supplies between January 1, 2013 and December 31, 2017.

5.2 AVAILABILITY ANALYSIS

MGT’s approach to estimating the availability of firms ready, willing, and able to perform work for the City of Dayton within its defined geographic and product markets are detailed in this section, followed by a presentation and review of the associated findings.

5.2.1 AVAILABILITY METHODOLOGY

The Supreme Court in City of Richmond, v. J.A. Croson Co. indicated the evidence necessary to support a race-conscious public contracting program: Where 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.187

In order to analyze whether a significant statistical disparity exists, MGT must first determine the availability of firms of different ownership classifications by determining those that are willing and able to perform work within the City’s geographic and product markets.

- In the approach taken to establish availability in this study, willingness188 is established either through (1) a firm’s prior utilization by the City, or (2) by direct affirmation from an authoritative party within the organization, as collected via survey.
- Whether a firm is able to perform the work is determined by either (1) their past history of performing work with the City, or (2) their alignment with the narrowly-tailored product markets of goods or services that have been procured by the City, courtesy of their Dun & Bradstreet-assigned industry classification, as well as their physical presence within the geographic market.

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188 Willingness is defined as any firm that is interested in working for the City of Dayton.
It is important to note that we did not filter firms as “able” or not based on any thresholds for capacity for two reasons: (1) the scalable nature of firms, which may reasonably add capacity to handle jobs beyond previous performance, and (2) the inherent concern that discrimination may have influenced the historical or existing scale of operation of the firms within the market.

Post-Croson case law has not prescribed a particular approach to derive vendor availability, which has enabled agencies to use a variety of methods to estimate pools of available vendors that have withstood legal scrutiny. Among varying methods, however, the “custom census” is considered a preferable means of estimation. The custom census surveys a representative sample of firms offering the procured goods and services within an organization’s relevant geographic and product markets. The result of the custom census provides estimated M/WBE ownership percentages for the prospective universe of vendors willing and able to work with the focus agency – in this case, the City of Dayton.

In its 2010 ‘Guidelines for Conducting a Disparity and Availability Study for the Federal DBE Program,’ the National Cooperative Highway Research Program (NCHRP) asserted that “the custom census approach to measuring DBE availability, when properly executed, is superior to the other methods,” because:

- It assumes the broadest possible view of the prospective universe of vendors.
- Closely related to the above, it inherently takes an inclusive, or “remedial,” approach to the pool of vendors, including consideration of potentially disenfranchised firms.
  - It does so by examining the full market of potential vendors via independent resources or repositories of vendor information. Said differently, it is not shaped or influenced by the focus organization’s or other government organizations’ historical operations or behaviors.
- It has consistently withstood legal scrutiny and has been upheld “by every court that has reviewed it.”

MGT’s data assessment and evaluation of alternative methods for measuring the number of firms willing and able to work with the City confirmed that a custom census approach would provide the most accurate representation of available firms in the relevant market area. In developing the custom census, MGT analyzed a representative sample of firms within the City’s marketplaces for each of the five procurement categories and combined these survey results with accounts of the known universe of vendors who have recently performed work for the City. Thus, MGT’s research and estimation process to determine the numbers of willing and able firms within the market area entailed two prongs:

1. Collecting an inventory of market area firms who have already performed work for the City.
2. Conducting a “custom census” survey of a representative number of firms that (i) have not done business with the City, but (ii) maintain a physical address within the market area and that (iii) directly affirm interest in working with the City via survey response. The representative sample

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189 See Concrete Works of Colorado, Inc. v. City and County of Denver, 321 F.3d 950, 966 (10th Cir. 2003) (Concrete Works IV), cert. denied, 540 U.S. 1027 (2003) (referring to the custom census as “more sophisticated” than earlier studies using census data); Northern Contracting, Inc. v. Illinois Dept of Transp., 473 F.3d 715, 723 (7th Cir. 2007) (finding that the custom census “arrive[s] at more accurate numbers than would be possible through use of just the list [of the number of registered an prequalified DBEs under Illinois law].”).
was extrapolated to the full universe of firms in the market area within each procurement category, as per Dun & Bradstreet’s current database of firms.

The first set defined above (utilized vendors) was combined with a (deduplicated) extrapolation of the second set to arrive at a comprehensive account of the number of firms available to work for the City, segmented by the procurement categories defined to describe the types of goods or services purchased. The proportions of firms by type of ownership and procurement category estimated in this fashion represent an unadjusted or “base” depiction of availability, purely reflective of the number of businesses in each procurement category.

Industry best-practice recommends application of weights to these availability proportions according to the volume of dollars spent procuring relevant goods or services within each category to enhance the accuracy of these base measures of availability for each procurement category.\textsuperscript{190} To illustrate:

\begin{quote}
\textit{Consider an entity and single procurement category that spends $100,000 annually on road painting and has 1,000 firms available to perform this type of service, while it spends $10,000,000 annually on road paving where it can identify only 10 firms in its market area available to perform this service. If the entity were to use raw numbers to establish availability for both of these services, over 99 percent of its availability measurement (1,000 firms out of 1,010 total) would be driven by the racial/ethnic/gender categories of ownership among road painting firms – none of which would be able to provide services relevant to 99 percent of its spending activity (only $100,000 of $10,100,000 total spent relevant to road painting). Instead, the dollars of spending should be used to “weight” the availability measurement so that availability is accurately calibrated to the proportion of dollars spent (in this case, 99 percent of availability driven by the population of road paving vendors).}
\end{quote}

\textsuperscript{190} See, for example, U.S. Department of Transportation, Office of Civil Rights, \textit{Tips for Goal-Setting in the Disadvantaged Business Enterprise (DBE) Program}. 
To establish these weighted availability estimates, MGT first divided each of the five procurement categories into more granular subsectors to establish measurements of availability (percentages of total available firms by M/WBE classifications of ownership) within more homogenous (specific and similar) families of goods or services. Weights were then applied to these percentages according to the proportions of dollars spent in each subsector, before combining the weighted subsectors back into revised representations of availability for the major procurement categories. This approach ensures that availability measurements were reflective of firms available to perform work in proportion to the categories and respective volumes of dollars actually spent by the City.

5.2.2 AVAILABILITY ANALYSIS

Following the methodology prescribed in Section 5.2.1, MGT derived estimates for proportions of available firms for the racial, ethnic, and gender ownership classes and five defined procurement categories.

PRIME AND SUB CONTRACTORS

Table 5-1 shows the estimated availability of firms by racial, ethnic, and gender ownership across all procurement categories and in the aggregate in the relevant geographic market area. MGT observed the following:

- African American-owned firms represented 2.87 percent of available vendors.
- Asian American-owned firms represented 2.54 percent of available vendors.
- Hispanic American-owned firms represented 1.72 percent of available vendors.
- Native American-owned firms represented 0.18 percent of available vendors.
- Nonminority Women firms represented 14.62 percent of available vendors.
- M/WBEs represented 21.93 percent of available vendors.
- Non-M/WBEs represented 78.07 percent of available vendors.

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL</th>
<th>CONSTRUCTION</th>
<th>A&amp;E</th>
<th>PROFESSIONAL SERVICES</th>
<th>OTHER SERVICES</th>
<th>MATERIALS &amp; SUPPLIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRICAN AMERICAN FIRMS</td>
<td>2.87%</td>
<td>4.82%</td>
<td>3.04%</td>
<td>4.70%</td>
<td>0.93%</td>
<td>0.57%</td>
</tr>
<tr>
<td>ASIAN AMERICAN FIRMS</td>
<td>2.54%</td>
<td>2.11%</td>
<td>4.21%</td>
<td>5.92%</td>
<td>0.06%</td>
<td>1.78%</td>
</tr>
<tr>
<td>HISPANIC AMERICAN FIRMS</td>
<td>1.72%</td>
<td>3.02%</td>
<td>2.80%</td>
<td>1.35%</td>
<td>0.03%</td>
<td>1.17%</td>
</tr>
<tr>
<td>NATIVE AMERICAN FIRMS</td>
<td>0.18%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.90%</td>
<td>0.00%</td>
</tr>
<tr>
<td>TOTAL MINORITY FIRMS</td>
<td>7.31%</td>
<td>9.95%</td>
<td>10.05%</td>
<td>11.97%</td>
<td>1.93%</td>
<td>3.52%</td>
</tr>
<tr>
<td>NONMINORITY WOMEN FIRMS</td>
<td>14.62%</td>
<td>7.29%</td>
<td>12.14%</td>
<td>20.04%</td>
<td>18.80%</td>
<td>17.97%</td>
</tr>
<tr>
<td>TOTAL M/WBE FIRMS</td>
<td>21.93%</td>
<td>17.23%</td>
<td>22.19%</td>
<td>32.01%</td>
<td>20.73%</td>
<td>21.49%</td>
</tr>
<tr>
<td>NON-M/WBE FIRMS</td>
<td>78.07%</td>
<td>82.77%</td>
<td>77.81%</td>
<td>67.99%</td>
<td>79.27%</td>
<td>78.51%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Source: Custom Census Analysis.
Study Period: January 1, 2013 through December 31, 2017
In the **Construction** category (**Table 5-2**), availability estimates were:

- African American-owned firms represented 4.82 percent of available vendors.
- Asian American-owned firms represented 2.11 percent of available vendors.
- Hispanic American-owned firms represented 3.02 percent of available vendors.
- Native American-owned firms represented 0.00 percent of available vendors.
- Nonminority Women firms represented 7.29 percent of available vendors.
- M/WBEs represented 17.23 percent of available vendors.

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>AVAILABLE FIRMS ESTIMATE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRICAN AMERICAN FIRMS</td>
<td>4.82%</td>
</tr>
<tr>
<td>ASIAN AMERICAN FIRMS</td>
<td>2.11%</td>
</tr>
<tr>
<td>HISPANIC AMERICAN FIRMS</td>
<td>3.02%</td>
</tr>
<tr>
<td>NATIVE AMERICAN FIRMS</td>
<td>0.00%</td>
</tr>
<tr>
<td>TOTAL MINORITY FIRMS</td>
<td>9.95%</td>
</tr>
<tr>
<td>NONMINORITY WOMEN FIRMS</td>
<td>7.29%</td>
</tr>
<tr>
<td>TOTAL M/WBE FIRMS</td>
<td>17.23%</td>
</tr>
<tr>
<td>NON-M/WBE FIRMS</td>
<td>82.77%</td>
</tr>
</tbody>
</table>

Source: Custom Census Analysis.

In the **Architecture & Engineering** category (**Table 5-3**) availability estimates were:

- African American-owned firms represented 3.04 percent of available vendors.
- Asian American-owned firms represented 4.21 percent of available vendors.
- Hispanic American-owned firms represented 2.80 percent of available vendors.
- Native American-owned firms represented 0.00 percent of available vendors.
- Nonminority Women firms represented 12.14 percent of available vendors.
- M/WBEs represented 22.19 percent of available vendors.
In the **Professional Services** (**Table 5-4**) category, availability estimates were:

- African American-owned firms represented 4.70 percent of available vendors.
- Asian American-owned firms represented 5.92 percent of available vendors.
- Hispanic American-owned firms represented 1.35 percent of available vendors.
- Native American-owned firms represented 0.00 percent of available vendors.
- Nonminority Women firms represented 20.04 percent of available vendors.
- M/WBEs represented 32.01 percent of available vendors.

In the **Other Services** (**Table 5-5**) category, availability estimates were:

- African American-owned firms represented 0.93 percent of available vendors.
- Asian American-owned firms represented 0.06 percent of available vendors.
- Hispanic American-owned firms represented 0.03 percent of available vendors.
- Native American-owned firms represented 0.90 percent of available vendors.
• Nonminority Women firms represented 18.80 percent of available vendors.
• M/WBEs represented 20.73 percent of available vendors.

**TABLE 5-5. ESTIMATION OF AVAILABLE FIRMS, OTHER SERVICES**

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>AVAILABLE FIRMS ESTIMATE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRICAN AMERICAN FIRMS</td>
<td>0.93%</td>
</tr>
<tr>
<td>ASIAN AMERICAN FIRMS</td>
<td>0.06%</td>
</tr>
<tr>
<td>HISPANIC AMERICAN FIRMS</td>
<td>0.03%</td>
</tr>
<tr>
<td>NATIVE AMERICAN FIRMS</td>
<td>0.90%</td>
</tr>
<tr>
<td>TOTAL MINORITY FIRMS</td>
<td>1.93%</td>
</tr>
<tr>
<td>NONMINORITY WOMEN FIRMS</td>
<td>18.80%</td>
</tr>
<tr>
<td>TOTAL M/WBE FIRMS</td>
<td>20.73%</td>
</tr>
<tr>
<td>NON-M/WBE FIRMS</td>
<td>79.27%</td>
</tr>
</tbody>
</table>

Source: Custom Census Analysis.  

Finally, in the **Goods & Supplies** (Table 5-6) category, availability estimates were:
• African American-owned firms represented 0.57 percent of available vendors.
• Asian American-owned firms represented 1.78 percent of available vendors.
• Hispanic American-owned firms represented 1.17 percent of available vendors.
• Native American-owned firms represented 0.00 percent of available vendors.
• Nonminority Women firms represented 17.97 percent of available vendors.
• M/WBEs represented 21.49 percent of available vendors.

**TABLE 5-6. ESTIMATION OF AVAILABLE FIRMS, GOODS & SUPPLIES**

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>AVAILABLE FIRMS ESTIMATE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRICAN AMERICAN FIRMS</td>
<td>0.57%</td>
</tr>
<tr>
<td>ASIAN AMERICAN FIRMS</td>
<td>1.78%</td>
</tr>
<tr>
<td>HISPANIC AMERICAN FIRMS</td>
<td>1.17%</td>
</tr>
<tr>
<td>NATIVE AMERICAN FIRMS</td>
<td>0.00%</td>
</tr>
<tr>
<td>TOTAL MINORITY FIRMS</td>
<td>3.52%</td>
</tr>
<tr>
<td>NONMINORITY WOMEN FIRMS</td>
<td>17.97%</td>
</tr>
<tr>
<td>TOTAL M/WBE FIRMS</td>
<td>21.49%</td>
</tr>
<tr>
<td>NON-M/WBE FIRMS</td>
<td>78.51%</td>
</tr>
</tbody>
</table>

Source: Custom Census Analysis.  

5.3 **DISPARITY METHODOLOGY AND RESULTS**

MGT used the City’s utilization data (Chapter 4) and the availability estimates presented in the previous section (Section 5.2) to identify potential disparities in the City’s procurement practices. A summary of the
approach is provided in Section 5.3.1 followed by the results of these disparity calculations and associated statistical significance testing in Section 5.3.2.

## 5.3.1 DISPARITY ANALYSIS METHODOLOGY

Once the utilization of prime M/WBE firms has been determined, it must be compared to the available M/WBE firms in the market area. To demonstrate an evidentiary basis for enacting a race-conscious program and to satisfy *Croson*’s compelling interest prong, governmental entities must present evidence of underutilization of M/WBEs that would give rise to an inference of discrimination in public contracting. If disparity can be shown, a *prima facie* case may be established if the differences between utilization and availability are statistically significant. Appropriate statistical tests must be used to determine if significant differences exist between availability and utilization of M/WBEs. MGT determines disparity by creating a disparity index as well as using statistical significance testing.

The disparity index is the ratio of the percentage of utilization and the percentage of availability times 100. The formula for a disparity index is:

\[
\text{Disparity Index} = \frac{\%\text{Utilization}}{\%\text{Availability}} \times 100
\]

Generally, disparity indices of 80 percent or higher—indicating close to full participation—are not considered significant. The court referenced the Equal Employment Opportunity Commission’s disparate impact guidelines, which establish the 80 percent test as the threshold for determining a prima facie case of discrimination. According to the Eleventh Circuit, no circuit that has explicitly endorsed using disparity indices has held that an index of 80 percent or greater is probative of discrimination, but they have held that indices below 80 percent indicate “significant disparities.”

### DISPARITY INDEX FORMULA

\[
\text{Disparity Index} = \frac{U_{m\cdot f\cdot i\cdot r\cdot m\cdot i\cdot s\cdot i\cdot r\cdot i\cdot o\cdot d\cdot s}}{A_{m\cdot f\cdot i\cdot r\cdot m\cdot i\cdot s\cdot i\cdot r\cdot i\cdot o\cdot d\cdot s}} \times 100
\]

\(U_{m\cdot f\cdot i\cdot r\cdot m\cdot i\cdot s\cdot i\cdot r\cdot i\cdot o\cdot d\cdot s}\) = utilization of minorities- and women-owned firms for procurement

### T-TEST FORMULA

\[
t = \frac{u - a}{\sqrt{\frac{a(1 - a)}{(N - 1)^2}}} = \frac{\text{the ratio of minorities- and women-owned firms’ dollars to total dollars}}{\text{the ratio of M/WBE firms to all firms}}
\]

The Supreme Court in *Croson* enforced the utility of statistics, concluding, “If there is a significant statistical disparity between the number of qualified, minority contractors who are willing and able to perform a particular service, and the number of contractors actually engaged by the locality or the locality’s prime contractors, an inference of discriminatory exclusion could arise.” Most federal circuits have supported the use of standard deviation analyses to test the statistical significance of disparity indices. In addition to the disparity index, we will conduct Standard Deviation tests to ascertain the

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191 *City of Richmond v. Croson*, at 509.
192 *Engineering Contractors Association of South Florida, Inc.*, 122 F.3d at 914.
193 *Id.* at 914 (citing 29 C.F.R. § 1607.4(D) concerning the disparate impact guidelines and threshold used in employment cases).
194 *Engineering Contractors Association of South Florida, Inc.*, 122 F.3d at 914 (referencing the first appeal in *Contractors Association of Eastern Pennsylvania, Inc.*, 6 F.3d at 1005, crediting disparity index of 4 percent, and *Concrete Works II*, 36 F.3d at 1524, crediting disparity indices ranging from 0 percent to 3.8 percent).
significance of the difference between the availability and utilization. With Standard Deviation analyses, the
reviewer can determine whether the disparities are substantial or statistically significant, which lends further
statistical support to a finding of discrimination.

Disparity calculations are presented by the defined business categories and racial, ethnic, and gender
classifications used in earlier phases of the project.

The Relevant Market Area for the following disparity analyses is defined as firms located in the seven
counties of Champaign, Clark, Darke, Greene, Miami, Montgomery, and Shelby, within the Dayton-
Springfield-Sydney, OH Combined Statistical Area (CSA).

<table>
<thead>
<tr>
<th>INDUSTRY/BUSINESS CATEGORIES</th>
<th>BUSINESS OWNERSHIP CLASSIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture and Engineering</td>
<td>African American</td>
</tr>
<tr>
<td>Construction</td>
<td>Asian American</td>
</tr>
<tr>
<td>Professional Services</td>
<td>Hispanic American</td>
</tr>
<tr>
<td>Other Services</td>
<td>Native American</td>
</tr>
<tr>
<td>Goods and Supplies</td>
<td>Nonminority Women</td>
</tr>
</tbody>
</table>

5.3.2 DISPARITY ANALYSES AND STATISTICAL SIGNIFICANCE

PRIME CONTRACTORS ONLY

The calculations of disparity ratios and significance testing in each of the procurement categories and
ownership classifications by race, ethnicity, and gender are presented in Tables 5-7 through 5-12. Analysis
of disparities across all procurement categories in Table 5-7 reveals:

- African American-owned firms were substantially underutilized, with a substantial and statistically
  significant disparity ratio of 34.39;
- Asian American-owned firms were substantially underutilized, with a substantial and statistically
  significant disparity ratio of 0.66;
- Hispanic American-owned firms were substantially underutilized, with a substantial and statistically
  significant disparity ratio of 0.84;
- Native American-owned firms were substantially underutilized, with a disparity ratio of 0.00, but
  lacks statistical significance due to relatively small size/share of population;
- Nonminority Women-owned firms were underutilized, with a substantial and statistically significant disparity ratio of 48.42; and
- M/WBEs were underutilized, with a substantial and statistically significant disparity ratio of 36.92.
### TABLE 5-7.
DISPARITY RATIO AND SIGNIFICANCE TESTING, ALL PROCUREMENT CATEGORIES

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>UTILIZATION</th>
<th>AVAILABILITY</th>
<th>DISPARITY INDEX</th>
<th>DISPARITY IMPACT</th>
<th>STATISTICAL SIGNIFICANCE</th>
<th>DISPARITY CONCLUSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRICAN AMERICAN FIRMS</td>
<td>0.99%</td>
<td>2.87%</td>
<td>34.39</td>
<td>Underutilization</td>
<td>Yes</td>
<td>Disparity</td>
</tr>
<tr>
<td>ASIAN AMERICAN FIRMS</td>
<td>0.02%</td>
<td>2.54%</td>
<td>0.66</td>
<td>Underutilization</td>
<td>Yes</td>
<td>Disparity</td>
</tr>
<tr>
<td>HISPANIC AMERICAN FIRMS</td>
<td>0.01%</td>
<td>1.72%</td>
<td>0.84</td>
<td>Underutilization</td>
<td>Yes</td>
<td>Disparity</td>
</tr>
<tr>
<td>NATIVE AMERICAN FIRMS</td>
<td>0.00%</td>
<td>0.18%</td>
<td>0.00</td>
<td>Underutilization</td>
<td>No</td>
<td>Disparity</td>
</tr>
<tr>
<td>TOTAL MINORITY FIRMS</td>
<td>1.02%</td>
<td>7.31%</td>
<td>13.92</td>
<td>Underutilization</td>
<td>Yes</td>
<td>Disparity</td>
</tr>
<tr>
<td>NONMINORITY WOMEN FIRMS</td>
<td>7.08%</td>
<td>14.62%</td>
<td>48.42</td>
<td>Underutilization</td>
<td>Yes</td>
<td>Disparity</td>
</tr>
<tr>
<td>TOTAL M/WBE FIRMS</td>
<td>8.10%</td>
<td>21.93%</td>
<td>36.92</td>
<td>Underutilization</td>
<td>Yes</td>
<td>Disparity</td>
</tr>
<tr>
<td>NON-M/WBE FIRMS</td>
<td>91.90%</td>
<td>78.07%</td>
<td>117.72</td>
<td>Overutilization</td>
<td>Yes</td>
<td>No Disparity</td>
</tr>
</tbody>
</table>

Disparity Index: under 80 represents substantial underutilization.
“Yes” represents statistical significance at 95% confidence interval.

#### 5.3.3 CONCLUSIONS – PRIME CONTRACTORS

The findings of the availability and disparity calculations in this chapter and the preceding depiction of utilization serve as the foundation for the City’s M/WBE program going forward. These analyses provide the quantitative legal justification for any current or future remedies to assist M/WBE firms within the market area.

Disparities between utilization and availability were observed in many of the procurement and M/WBE categories considered in this study. Table 5-7 summarizes the identified disparity was found in all procurement categories, and disparity was found in all minority classifications where a disparity analysis could be calculated.
CHAPTER 6. PRIVATE SECTOR ANALYSIS

2019 Third Generation Disparity Study

City of Dayton

MGT Consulting Group
6.1 INTRODUCTION

The **Legal Framework** presented in Chapter 2 of this report documented how a government entity must have a record of active or passive discrimination to justify remedies promoted through the institution of a minority- and women-owned business enterprise (M/WBE) program. Courts further require a **compelling-interest analysis** showing a connection between the government or agency and the public or private discrimination that may exist within their jurisdiction. Following documentation of disparities that exist in the public sector in **Chapter 5**, this chapter focuses on an over-arching question:

- **Do private sector disparities exist in the private sector which compel the City to continue its M/WBE programs to avoid becoming a passive participant in discrimination?**

**Passive** discrimination describes a circumstance where a public entity resides in a market with measurably disparate circumstances in the private sector but is failing to take proactive actions to implement remedies within the domain of its control. Substantiating the relevance of an analysis of the private sector:

- Defining passive participation, the Supreme Court in **Croson** stated, “if the city could show that it had essentially become a ‘passive participant’ in a system of racial exclusion practiced by elements of the local construction industry, we think it clear that the city could take affirmative steps to dismantle such a system.” This does not mean that the public entity is continuously turning a blind eye to discrimination but rather that the public entity has a compelling interest to mitigate private sector discrimination or risk becoming a passive participant to discrimination.

- Also stated in **Croson** is that “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 evil of private prejudice.”

- **Croson** further provided that the government “can use its spending powers to remedy private discrimination, if it identifies that discrimination with the particularity required by the Fourteenth Amendment.”

- In **Concrete Works IV**, the courts expressly cited as evidence of discrimination that M/WBE contractors used for business with the city of Denver were not used by the same prime contractors for private sector contracts.

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195 **Croson**, 488 U.S. at 492.
196 **Coral Construction**, 941 F.2d at 922 (citing **Croson**, 488 U.S. at 492) (emphasis added).
198 **Concrete Works IV**, 321 F.3d at 984-85.
In *Adarand v. Slater*, the Tenth Circuit favorably cited evidence of capital market discrimination as relevant in establishing the factual predicate for the federal DBE program. The same court, in *Concrete Works IV*, found that barriers to business formation were relevant insofar as this evidence demonstrated that M/WBEs were “precluded from the outset from competing for public construction contracts.”

Also, in *Adarand*, the courts concluded there was a compelling interest for a government Disadvantaged Business Enterprise (DBE) program based primarily on evidence of private sector discrimination.

Along related lines, the court also found a regression analysis of census data to be relevant evidence showing barriers to M/WBE formation.

A district court upheld the state of North Carolina M/WBE program in road construction based largely on similar private sector evidence supplement by evidence from databases covering private sector commercial construction.

Thus, discriminatory practices in the marketplace may in many circumstances show or serve to support the *compelling interest* required by courts to support an agency’s program to intervene in order to prevent the agency from becoming a *passive participant* to discrimination.

With these decisions supporting investigation into this domain, as part of the development of a comprehensive framework and set of perspectives that have traditionally been used to justify M/WBE programs, this chapter provides an accumulation of evidence for the overarching question of whether or not the City of Dayton (City) has continued compelling interest to maintain its M/WBE programs based on circumstances observed in the private sector. This is investigated using two specific sources of data leveraged to address three specific questions substantiating the over-arching research question regarding disparities in the private sector:

1. **2012 Census Survey of Business Owners (SBO) data**, which are used to determine:
   - Do marketplace disparities exist in the private sector within the five procurement categories?

2. **2011-2016 Census American Community Survey (ACS) Public Use Microdata Sample (PUMS) data**, which are used to determine:
   - Are racial, ethnic, and gender minority groups less likely than nonminority males (non-M/WBEs) to be self-employed?
   - Do racial, ethnic, and gender status have an impact on individuals’ earnings?

199 *Adarand v. Slater*, 228 F.3d at 1169-70 (10th Cir. 2000).
200 *Concrete Works IV*, 321 F.2d at 977. The district court rejected evidence of credit market discrimination as adequate to provide a factual predicate for an M/WBE program. *Concrete Works v. City and County of Denver*, 86 F. Supp. 2d 1042 (D. Colo. 2000) (*Concrete Works I*).
201 *Adarand v. Slater*, 228 F.3d 1147 (10th Cir. 2000).
202 Id. at 977.
203 *H.B. Rowe, Inc. v. Tippet*, 589 F.Supp. 2d 587 (ED NC 2008). The court, however, was very brief in discussing what factors in the study accounted for its ruling. The program was subsequently found to be unconstitutional as applied to women. *H.B. Rowe, Inc. v. Tippet*, 615 F.3d 233 (4th Cir. 2010).
In answering these questions, the private sector analysis also supports anecdotal comments offered in Chapter 6, Anecdotal Analysis, regarding difficulties M/WBE firms have in securing work on private sector projects.

### 6.2 Private Sector Utilization Analysis Based on Construction Permits

To help answer the over-arching research question regarding the existence of disparities in the private sector, as well as the specific question:

1. Do disparities exist in utilization of M/WBE firms for commercial private sector construction projects relative to their availability?

construction permits issued by the City were analyzed. The value in examining permits is that they offer up-to-date records of actual construction activity undertaken in the area. In order to isolate only commercial construction projects as the focus of analysis, public sector and residential permit records, where identified, were excluded. Additionally, to distinguish between primes and subs, MGT assigned general contractors as primes and all others as subs. Since the private sector permits data did not contain the contractor’s race, ethnic, or gender information, MGT assigned business ownership classification using various vendor lists obtained from all registration and certification agencies in order to conduct a vendor match procedure. This vendor match procedure allowed MGT to assign business ownership classification to firms presented in the permit data. In order to achieve the greatest number of potential match combinations, in addition to electronically linking the various lists to the permits data, a manual match was also conducted. Firms identified as nonminority male, and firms for which there was no business ownership classification, were considered to be non-M/WBE firms and counted as non-M/WBE firms in the analysis conducted for this Study.

For the procurement category analysis, findings reported in this chapter deal only with private sector construction for two reasons: (1) permit data, by its nature, pertains only to construction activities, which is also the category for which data tends to be most extensive and reliable, and (2) courts have historically scrutinized construction activity in a given jurisdiction more than any other procurement category because, in both public and private sector business activity, it tends to be the most financially lucrative in terms of its impact on a local economy.

A total of $5.882 million in prime and $6.092 million subcontractor construction permits issued by the City during the study period (January 1, 2013 through December 31, 2017) were analyzed as part of this investigation. **Table 6-1** shows that 1.48 percent of the prime permits were let to M/WBEs, with highest M/WBE utilization observed for Nonminority Female firms (1.31%) followed by African American firms (0.17%). **Table 6-1** also shows that 3.66 percent of the subcontractor permits were let to M/WBEs, with highest M/WBE utilization observed for African American firms (2.36%) followed by Nonminority Female firms (1.30%).
With this point of reference established, MGT utilized two data sets to compare relative utilization of firms and gauge the scale of any differences. The first of these comparison data sets contained a listing of permits issued to contractors which appeared in both the permits and City public sector construction data, while the second data set contained firms utilized on City public sector construction projects during the study period.

Table 6.1: Utilization Analysis of Firms—Commercial Construction

<table>
<thead>
<tr>
<th>Business Ownership Classification</th>
<th>Prime Permits</th>
<th>Percent of Prime Permits</th>
<th>Subcontractor Permits</th>
<th>Percent of Subcontractor Permits</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American Firms</td>
<td>$10,000.00</td>
<td>0.17%</td>
<td>$143,700.00</td>
<td>2.36%</td>
</tr>
<tr>
<td>Asian American Firms</td>
<td>$0.00</td>
<td>0.00%</td>
<td>$0.00</td>
<td>0.00%</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>$0.00</td>
<td>0.00%</td>
<td>$0.00</td>
<td>0.00%</td>
</tr>
<tr>
<td>Native American Firms</td>
<td>$0.00</td>
<td>0.00%</td>
<td>$0.00</td>
<td>0.00%</td>
</tr>
<tr>
<td>Total Minority Firms</td>
<td>$10,000.00</td>
<td>0.17%</td>
<td>$143,700.00</td>
<td>2.36%</td>
</tr>
<tr>
<td>Nonminority Female Firms</td>
<td>$76,857.00</td>
<td>1.31%</td>
<td>$79,317.00</td>
<td>1.30%</td>
</tr>
<tr>
<td>Total M/WBE Firms</td>
<td>$86,857.00</td>
<td>1.48%</td>
<td>$223,017.00</td>
<td>3.66%</td>
</tr>
<tr>
<td>Total Non-M/WBE</td>
<td>$5,795,157.00</td>
<td>98.52%</td>
<td>$5,869,343.00</td>
<td>96.34%</td>
</tr>
<tr>
<td>Total Firms</td>
<td>$5,882,014.00</td>
<td>100.00%</td>
<td>$6,092,360.00</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Source: MGT developed a Master Commercial Private Sector Database based on commercial construction permitting data between January 1, 2013 through December 31, 2017.

Table 6.2: Utilization Analysis of Firms—Prime Only

<table>
<thead>
<tr>
<th>Business Ownership Classification</th>
<th>Permits Issued to Contractors</th>
<th>Percent of Permits</th>
<th>Public Sector Utilization</th>
<th>Percent of Contracts</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American Firms</td>
<td>$10,000.00</td>
<td>0.17%</td>
<td>$625,617.93</td>
<td>0.65%</td>
</tr>
<tr>
<td>Asian American Firms</td>
<td>$0.00</td>
<td>0.00%</td>
<td>$44,974.35</td>
<td>0.05%</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>$0.00</td>
<td>0.00%</td>
<td>$0.00</td>
<td>0.00%</td>
</tr>
<tr>
<td>Native American Firms</td>
<td>$0.00</td>
<td>0.00%</td>
<td>$0.00</td>
<td>0.00%</td>
</tr>
<tr>
<td>Total Minority Firms</td>
<td>$10,000.00</td>
<td>0.17%</td>
<td>$670,592.28</td>
<td>0.70%</td>
</tr>
<tr>
<td>Nonminority Female Firms</td>
<td>$76,857.00</td>
<td>1.31%</td>
<td>$13,329,651.10</td>
<td>13.92%</td>
</tr>
<tr>
<td>Total M/WBE Firms</td>
<td>$86,857.00</td>
<td>1.48%</td>
<td>$14,000,243.38</td>
<td>14.62%</td>
</tr>
<tr>
<td>Total Non-M/WBE</td>
<td>$5,795,157.00</td>
<td>98.52%</td>
<td>$81,777,975.88</td>
<td>85.38%</td>
</tr>
<tr>
<td>Total Firms</td>
<td>$5,882,014.00</td>
<td>100.00%</td>
<td>$95,778,219.26</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Source: MGT developed a Master Commercial Private Sector Database based on commercial construction permitting data between January 1, 2013 through December 31, 2017.
The goal of this analysis was to examine public sector and private sector contracting patterns for construction. MGT compared the public sector utilization of firms in City-issued data with private sector utilization of such firms, as reflected in the private commercial permit data, to analyze to what extent utilized contractors which appear in the City data also appear in the permitting data for commercial construction projects.

When the permit results are compared to the City utilization results, the city utilizes M/WBEs at lower rates than the commercial sector for both prime contractor and subcontractors. From Table 6-2, the City M/WBEs accounted for 14.62 percent of the number of prime construction contracts, while M/WBEs accounted for 1.48 percent of the number of prime construction permits. Specifically, MBEs accounted for only 0.70 percent of the number of prime construction contracts, while MBEs accounted for 0.17 percent of the number of construction permits; and WBEs accounted for 13.92 percent of the number of construction contracts, while WBEs accounted for 1.31 percent of the number of construction permits. From Table 6-3, the City M/WBEs accounted for 35.91 percent of the number of subcontractor construction contracts, while M/WBEs accounted for 3.66 percent of the number of subcontractor construction permits. For subcontracts, MBEs accounted for only 30.78 percent of the number of subcontractor construction contracts, while MBEs accounted for 2.36 percent of the number of subcontractor construction permits; and WBEs accounted for only 5.13 percent of the number subcontractor of construction contracts, while WBEs accounted for 1.30 percent of the number of construction permits.

While not definitive in isolation, the data does clearly show a pronounced difference in utilization of M/WBE firms within the private sector versus what we observed for the public sector, where program goals do not facilitate more equitable participation. Combining this perspective with others (such as the public sector disparity ratios presented in Chapter 5 and vendor survey results and anecdotal evidence to
be presented in Chapter 7), we see a prevailing theme in a pattern of cumulatively overwhelming evidence that disparities in contracting are fairly pervasive in this market.

### 6.3 PRIVATE SECTOR DISPARITIES IN SBO CENSUS DATA

To answer the over-arching research question regarding the existence of disparities in the private sector, as well as the specific question (1) of whether these disparities exist in procurement categories relevant to the City’s contracting domain, MGT obtained and analyzed U.S. Census Bureau’s 2012 Survey of Business Owners (SBO) data to measure private sector disparities. SBO provides data on economic and demographic characteristics for businesses and business owners by geography (such as states and metropolitan areas), categorized by industries defined by North American Industry Classification System (NAICS) codes, and supporting information including firm receipts (sales), firm employment size, and business ownership classification. The survey has been administered every five years since 1972 as part of the economic census.

The SBO gathers and reports data on (1) firms with paid employees, including workers on the payroll (employer firms), and (2) firms without paid employees, including sole proprietors and partners of unincorporated businesses that do not have any other employees on the payroll (non-employer firms), as well as (3) in aggregate across all firms. MGT calculated private sector disparity indices to examine whether M/WBE firms in any of these categories received a proportionate share of firm sales based on the availability of M/WBE firms, measured consistently with public sector availability presented in Chapter 5, as the number of classified firms divided by the total universe. Disparity indices were examined for all firms and employer firms.

The following NAICS codes were analyzed because they align with the categories of utilization analyzed for the City:

- NAICS Code 23, Construction
- NAICS Code 42, Wholesale Trade
- NAICS Code 54, Professional, Scientific, and Technical Services
- NAICS Code 56, Administrative and Support and Waste Management and Remediation Services
- NAICS Code 81, Other Services (Except Public Administration)

#### 6.3.1 RESULTS OF ANALYSIS

This private sector analysis presents disparity results based on the following geographic market areas: (1) the state of Ohio and (2) the Dayton, OH Metropolitan Statistical Area (MSA). These marketplaces were chosen because they are the area’s most readily available in the SBO data that allow for similar comparison to the public-sector utilization. The results based on the state of Ohio are presented first, followed by the Dayton, OH MSA.

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204 These represent the most recent available data provided through the SBO program and were released in 2016.
205 Sales includes total shipments, receipts, revenue, or business done by the firm.
206 The two-digit NAICS code level was utilized as those codes are the most prevalent level across all the 2012 SBO data.
STATE OF OHIO MARKETPLACE

Tables 6-4 through 6-8 show the measures of private sector disparities based on U.S. Census, 2012 SBO data for the population of available firms in the state of Ohio by race, ethnicity, and gender for construction; wholesale trade; professional, scientific, and technical services; administrative and support and waste management and remediation services; and other services (except public administration).

Based on the analysis of the U.S. Census, 2012 SBO data, overall there remains a significant gap between the market share of M/WBE firms and their share of the state of Ohio business population, where data were available.

NAICS CODE 23: CONSTRUCTION, STATE MARKETPLACE

Table 6-4 shows the availability, sales, and disparity results for construction. The results were derived from those firms which provide construction or construction-related services based on the NAICS Code 23.

There was a total of 107,863 construction firms (all firms^207) in the State of Ohio in 2012, of which 7.47 percent were owned by minorities and 7.61 percent by nonminority women.

- African American firms (disparity index of 55.15) were substantially underutilized, accounting for 3.79 percent of all firms and 2.09 percent of sales.
- Native American firms (disparity index of 35.55) were substantially underutilized, accounting for 0.56 percent of all firms and 0.20 percent of sales.
- Asian American firms (disparity index of 79.44) were substantially underutilized, accounting for 0.50 percent of all firms and 0.40 percent of sales.
- Hispanic American firms (disparity index of 24.39) were substantially underutilized, accounting for 2.62 percent of all firms and 0.64 percent of sales.
- Nonminority women firms (disparity index of 67.53) were underutilized, accounting for 7.61 percent of all firms and 5.14 percent of sales.

There was a total of 19,628 construction employer firms^208 in the State of Ohio in 2012, of which 3.16 percent were owned by minorities and 9.07 percent by nonminority women firms.

- African American firms (disparity index of 151.87) were overutilized, accounting for 1.39 percent of employer firms and 2.10 percent of sales.
- Data for Native American firms were withheld; therefore, private sector disparities were not conducted.
- Asian American firms (disparity index of 210.41) were overutilized, accounting for 0.18 percent of employer firms and 0.39 percent of sales.

^207 All firms, a compilation of employer firms and non-employer firms, were examined since non-employer firms can provide services at the subcontractor/subconsultant level, as well hire independent contractors to increase capacity.

^208 Employer firms include firms with payroll at any time during 2012.
Hispanic American firms (disparity index of 33.64) were substantially underutilized, accounting for 1.13 percent of employer firms and 0.38 percent of sales.

Nonminority women firms (disparity index of 57.27) were substantially underutilized, accounting for 9.07 percent of employer firms and 5.20 percent of sales.

### TABLE 6-4. PRIVATE SECTOR CENSUS DISPARITIES

**NAICS CODE 23, CONSTRUCTION**

**U.S. CENSUS 2012 SURVEY OF BUSINESS OWNERS, STATE OF OHIO MARKETPLACE**

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL FIRMS (#)</th>
<th>ALL FIRMS, SALES ($1,000)</th>
<th>EMPLOYER FIRMS (#)</th>
<th>EMPLOYER FIRMS SALES ($1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>107,863</td>
<td>$48,351,510</td>
<td>19,628</td>
<td>$43,998,315</td>
</tr>
<tr>
<td>African American Firms</td>
<td>4,085</td>
<td>$1,009,906</td>
<td>272</td>
<td>$925,979</td>
</tr>
<tr>
<td>Native American Firms¹</td>
<td>601</td>
<td>$95,771</td>
<td>91</td>
<td>$</td>
</tr>
<tr>
<td>Asian American Firms²</td>
<td>539</td>
<td>$191,935</td>
<td>36</td>
<td>$169,797</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>2,829</td>
<td>$309,352</td>
<td>221</td>
<td>$166,656</td>
</tr>
<tr>
<td>Nonminority Women Firms³</td>
<td>8,203</td>
<td>$2,483,239</td>
<td>1,781</td>
<td>$2,286,293</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERCENTAGE OF MARKETPLACE</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>African American Firms</td>
<td>3.79%</td>
<td>2.09%</td>
<td>1.39%</td>
<td>2.10%</td>
</tr>
<tr>
<td>Native American Firms¹</td>
<td>0.56%</td>
<td>0.20%</td>
<td>0.46%</td>
<td>S</td>
</tr>
<tr>
<td>Asian American Firms²</td>
<td>0.50%</td>
<td>0.40%</td>
<td>0.18%</td>
<td>0.39%</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>2.62%</td>
<td>0.64%</td>
<td>1.13%</td>
<td>0.38%</td>
</tr>
<tr>
<td>Nonminority Women Firms³</td>
<td>7.61%</td>
<td>5.14%</td>
<td>9.07%</td>
<td>5.20%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DISPARITY INDEX</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>100.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American Firms</td>
<td>55.15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native American Firms¹</td>
<td>35.55</td>
<td></td>
<td>151.87</td>
<td></td>
</tr>
<tr>
<td>Asian American Firms²</td>
<td>79.44</td>
<td></td>
<td></td>
<td>210.41</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>24.39</td>
<td></td>
<td>33.64</td>
<td></td>
</tr>
<tr>
<td>Nonminority Women Firms³</td>
<td>67.53</td>
<td></td>
<td>67.53</td>
<td>57.27</td>
</tr>
</tbody>
</table>

Source: MGT of America, Inc. conducted private sector disparities marketplace analyses based on U.S. Census Bureau, 2012 Survey of Business Owners (SBO) data.

¹ Native American consists of American Indian- and Alaska Native-owned firms.
² Asian American consists of Asian-owned and Native Hawaiian- and Other Pacific Islander-owned firms.
³ Nonminority Women consists of White Women-owned and White Equally Women-/Male-owned firms.
⁴ S denotes findings were withheld as the estimates did not meet U.S. Census publication standards.

Sales includes total shipments, receipts, revenue, or business done by the firm. Disparity index is the ratio of the percentage of sales to percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.
NAICS CODE 42: WHOLESALE TRADE, STATE MARKETPLACE

Table 6-5 shows the availability, sales, and disparity results for wholesale trade firms. The results were derived from those firms which sell capital or durable goods to other businesses based on NAICS Code 42.

There was a total of 24,204 wholesale trade firms (all firms) in the State of Ohio in 2012, of which 5.46 percent were owned by minorities and 25.88 percent by nonminority women.

- African American firms (disparity index of 26.65) were substantially underutilized, accounting for 2.54 percent of all firms and 0.68 percent of sales.
- Asian American firms (disparity index of 61.10) were substantially underutilized, accounting for 1.48 percent of all firms and 0.91 percent of sales.
- Hispanic American firms (disparity index of 16.77) were substantially underutilized, accounting for 1.23 percent of all firms and 0.21 percent of sales.
- Nonminority women firms (disparity index of 19.42) were substantially underutilized, accounting for 25.88 percent of all firms and 5.03 percent of sales.
- Native American firms (disparity index of 8.91) were substantially underutilized, accounting for 0.21 percent of all firms and 0.02 percent of sales.

There was a total of 11,542 wholesale trade employer firms in the State of Ohio in 2012, of which 3.06 percent were owned by minorities and close to 18.61 percent by nonminority women.

- African American firms (disparity index of 78.42) were substantially underutilized, accounting for 0.84 percent of employer firms and 0.66 percent of sales.
- Asian American firms (disparity index of 54.48) were substantially underutilized, accounting for 1.61 percent of employer firms and 0.88 percent of sales.
- Hispanic American firms (disparity index of 38.78) were substantially underutilized, accounting for 0.52 percent of employer firms and 0.20 percent of sales.
- Nonminority women firms (disparity index of 26.63) were substantially underutilized, accounting for 18.61 percent of employer firms and 4.96 percent of sales.
- Native American firms (disparity index of 20.98) were substantially underutilized, accounting for 0.09 percent of employer firms and 0.02 percent of sales.
## TABLE 6-5.
PRIVATE SECTOR CENSUS DISPARITIES
NAICS CODE 42, WHOLESALE TRADE
U.S. CENSUS 2012 SURVEY OF BUSINESS OWNERS,
STATE OF OHIO MARKETPLACE

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL FIRMS (#)</th>
<th>ALL FIRMS, SALES ($1,000)</th>
<th>EMPLOYER FIRMS (#)</th>
<th>EMPLOYER FIRMS SALES ($1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>24,204</td>
<td>$254,461,580</td>
<td>11,542</td>
<td>$252,757,671</td>
</tr>
<tr>
<td>African American Firms</td>
<td>615</td>
<td>$1,722,768</td>
<td>97</td>
<td>$1,665,831</td>
</tr>
<tr>
<td>Native American Firms1</td>
<td>50</td>
<td>$46,832</td>
<td>10</td>
<td>$45,954</td>
</tr>
<tr>
<td>Asian American Firms2</td>
<td>359</td>
<td>$2,306,039</td>
<td>186</td>
<td>$2,219,284</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>298</td>
<td>$525,469</td>
<td>60</td>
<td>$509,532</td>
</tr>
<tr>
<td>Nonminority Women Firms3</td>
<td>6,265</td>
<td>$12,794,286</td>
<td>2,148</td>
<td>$12,526,380</td>
</tr>
</tbody>
</table>

### PERCENTAGE OF MARKETPLACE

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL FIRMS (%)</th>
<th>EMPLOYER FIRMS (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>African American Firms</td>
<td>2.54%</td>
<td>0.68%</td>
</tr>
<tr>
<td>Native American Firms1</td>
<td>0.21%</td>
<td>0.02%</td>
</tr>
<tr>
<td>Asian American Firms2</td>
<td>1.48%</td>
<td>0.91%</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>1.23%</td>
<td>0.21%</td>
</tr>
<tr>
<td>Nonminority Women Firms3</td>
<td>31.28%</td>
<td>8.67%</td>
</tr>
</tbody>
</table>

### DISPARITY INDEX

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL FIRMS</th>
<th>EMPLOYER FIRMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>African American Firms</td>
<td>26.65</td>
<td>78.42</td>
</tr>
<tr>
<td>Native American Firms1</td>
<td>8.91</td>
<td>20.98</td>
</tr>
<tr>
<td>Asian American Firms2</td>
<td>61.10</td>
<td>54.48</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>16.77</td>
<td>38.78</td>
</tr>
<tr>
<td>Nonminority Women Firms3</td>
<td>19.42</td>
<td>26.63</td>
</tr>
</tbody>
</table>

Source: MGT of America, Inc. conducted private sector disparities marketplace analyses based on U.S. Census Bureau, 2012 Survey of Business Owners (SBO) data.

1 Native American consists of American Indian- and Alaska Native-owned firms.
2 Asian American consists of Asian-owned and Native Hawaiian- and Other Pacific Islander-owned firms.
3 Nonminority Women consists of White Women-owned and White Equally Women-/Male-owned firms.

Sales includes total shipments, receipts, revenue, or business done by the firm.

Disparity index is the ratio of the percentage of sales to percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.
NAICS CODE 54: PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES, STATE MARKETPLACE

Table 6-6 shows the availability, sales, and disparity results for professional, scientific, and technical services. Professional, scientific, and technical services, which require a high degree of expertise and training, were derived from those firms specializing in performing professional, scientific, and technical activities (such as legal advice, accounting, architecture, engineering, computer services, consulting services, advertising services) for others in NAICS Code 54.

There was a total of 114,481 professional, scientific, and technical services firms (all firms) in the State of Ohio in 2012, of which 9.60 percent were owned by minorities and 32.20 percent by nonminority women.

- African American firms (disparity index of 21.67) were substantially underutilized, accounting for 4.60 percent of all firms and 1.00 percent of sales.
- Asian American firms (disparity index of 80.58) were underutilized, accounting for 2.84 percent of all firms and 2.29 percent of sales.
- Hispanic American firms (disparity index of 41.11) were substantially underutilized, accounting for 1.57 percent of all firms and 0.65 percent of sales.
- Data for Native American firms were withheld; therefore, private sector disparities were not conducted.
- Nonminority women firms (disparity index of 31.21) were substantially underutilized, accounting for 32.20 percent of all firms and 10.05 percent of sales.

There was a total of 21,953 professional, scientific, and technical services employer firms in the State of Ohio in 2012, of which 5.76 percent were owned by minorities and 23.68 percent by nonminority women.

- African American firms (disparity index of 52.29) were substantially underutilized, accounting for 1.57 percent of employer firms and 0.82 percent of sales.
- Asian American firms (disparity index of 66.65) were substantially underutilized, accounting for 3.29 percent of employer firms and 2.19 percent of sales,
- Hispanic American firms (disparity index 77.03) were substantially underutilized, accounting for 0.77 percent of employer firms and 0.59 percent of sales.
- Data for Native American firms were withheld; therefore, private sector disparities were not conducted.
- Nonminority women firms (disparity index of 36.89) were substantially underutilized, accounting for 23.68 percent of employer firms and 8.74 percent of sales.
### TABLE 6-6.
PRIVATE SECTOR CENSUS DISPARITIES
NAICS CODE 54, PROFESSIONAL, SCIENTIFIC AND TECHNICAL SERVICES
U.S. CENSUS 2012 SURVEY OF BUSINESS OWNERS,
STATE OF OHIO MARKETPLACE

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL FIRMS (#)</th>
<th>ALL FIRMS, SALES ($1,000)</th>
<th>EMPLOYER FIRMS (#)</th>
<th>EMPLOYER FIRMS SALES ($1,000)</th>
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<tr>
<td>Asian American Firms(^2)</td>
<td>3,248</td>
<td>$992,784</td>
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<td>Hispanic American Firms</td>
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<td>168</td>
<td>$234,855</td>
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<tr>
<td>Nonminority Women Firms(^3)</td>
<td>36,865</td>
<td>$4,364,186</td>
<td>5,199</td>
<td>$3,480,652</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>All Firms</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>African American Firms</td>
<td>4.60%</td>
<td>1.00%</td>
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<td>0.82%</td>
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<td>Native American Firms(^1)</td>
<td>0.59%</td>
<td>S</td>
<td>0.14%</td>
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<tr>
<td>Asian American Firms(^2)</td>
<td>2.84%</td>
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<td>3.29%</td>
<td>2.19%</td>
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<tr>
<td>Hispanic American Firms</td>
<td>1.57%</td>
<td>0.65%</td>
<td>0.77%</td>
<td>0.59%</td>
</tr>
<tr>
<td>Nonminority Women Firms(^3)</td>
<td>32.20%</td>
<td>10.05%</td>
<td>23.68%</td>
<td>8.74%</td>
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<td>100.00</td>
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</tr>
<tr>
<td>African American Firms</td>
<td>21.67</td>
<td></td>
<td>52.29</td>
<td></td>
</tr>
<tr>
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<td>80.58</td>
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<td>Hispanic American Firms</td>
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<td>77.03</td>
<td></td>
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<tr>
<td>Nonminority Women Firms(^3)</td>
<td>31.21</td>
<td></td>
<td>36.89</td>
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</tr>
</tbody>
</table>

Source: MGT of America, Inc. conducted private sector disparities marketplace analyses based on U.S. Census Bureau, 2012 Survey of Business Owners (SBO) data.

\(^1\) Native American consists of American Indian- and Alaska Native-owned firms.

\(^2\) Asian American consists of Asian-owned and Native Hawaiian- and Other Pacific Islander-owned firms.

\(^3\) Nonminority Women consists of White Women-owned and White Equally Women-/Male-owned firms.

\(^4\) S denotes findings were withheld as the estimates did not meet U.S. Census publication standards.

Sales includes total shipments, receipts, revenue, or business done by the firm.

Disparity index is the ratio of the percentage of sales to percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.
NAICS CODE 56: ADMINISTRATIVE AND SUPPORT AND WASTE MANAGEMENT AND REMEDIATION SERVICES, STATE MARKETPLACE

Table 6-7 shows the availability, sales, and disparity results for administrative and support and waste management and remediation services (such as office administration, hiring and placing of personnel, document preparation and similar clerical services, solicitation, collection, security and surveillance services, cleaning, and waste disposal services) in NAICS Code 56.

There was a total of 75,285 administrative and support and waste management and remediation services firms (all firms) in the State of Ohio in 2012, of which 16.26 percent were owned by minorities and 40.50 percent by nonminority women.

- African American firms (disparity index of 13.50) were substantially underutilized, accounting for 12.08 percent of all firms and 1.63 percent of sales.
- Asian American firms (disparity index of 42.21) were substantially underutilized, accounting for 1.20 percent of all firms and 0.51 percent of sales.
- Hispanic American firms (disparity index of 40.91) were substantially underutilized, accounting for 2.46 percent of all firms and close to 1.01 percent of sales.
- Native American firms (disparity index of 6.29) were substantially underutilized, accounting for 0.52 percent of all firms and close to 0.03 percent of sales.
- Nonminority women firms (disparity index of 34.36) were substantially underutilized, accounting for 40.50 percent of all firms and 13.92 percent of sales.

There was a total of 11,361 administrative and support and waste management and remediation services employer firms in the State of Ohio in 2012, of which 5.00 percent were owned by minorities and 27.06 percent by nonminority women.

- African American firms (disparity index 34.90) were substantially underutilized, accounting for 3.16 percent of employer firms and 1.10 percent of sales.
- Asian American firms (disparity index of 58.10) were substantially underutilized, accounting for 0.79 percent of employer firms and 0.46 percent of sales.
- Hispanic American firms (disparity index of 94.37) were underutilized, accounting for 0.99 percent of employer firms and 0.94 percent of sales.
- Native American firms (disparity index of 19.51) were substantially underutilized, accounting for 0.05 percent of employer firms and close to 0.01 percent of sales.
- Nonminority women firms (disparity index of 47.18) were substantially underutilized, accounting for 27.06 percent of employer firms and 12.77 percent of sales.
### TABLE 6-7.
PRIVATE SECTOR CENSUS DISPARITIES
NAICS CODE 56
ADMINISTRATIVE AND SUPPORT/WASTE MANAGEMENT AND REMEDIATION SERVICES
U.S. CENSUS 2012 SURVEY OF BUSINESS OWNERS,
STATE OF OHIO MARKETPLACE

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<th>ALL FIRMS, SALES ($1,000)</th>
<th>EMPLOYER FIRMS (#)</th>
<th>EMPLOYER FIRMS SALES ($1,000)</th>
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<td>$376,019</td>
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<td>393</td>
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<td>Hispanic American Firms</td>
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<td>$231,939</td>
<td>113</td>
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<tr>
<td>Nonminority Women Firms3</td>
<td>30,494</td>
<td>$3,209,485</td>
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<td>$2,794,035</td>
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<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>African American Firms</td>
<td>12.08%</td>
<td>1.63%</td>
<td>3.16%</td>
<td>1.10%</td>
</tr>
<tr>
<td>Native American Firms1</td>
<td>0.52%</td>
<td>0.03%</td>
<td>0.05%</td>
<td>0.01%</td>
</tr>
<tr>
<td>Asian American Firms2</td>
<td>1.20%</td>
<td>0.51%</td>
<td>0.79%</td>
<td>0.46%</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>2.46%</td>
<td>1.01%</td>
<td>0.99%</td>
<td>0.94%</td>
</tr>
<tr>
<td>Nonminority Women Firms3</td>
<td>40.50%</td>
<td>13.92%</td>
<td>27.06%</td>
<td>12.77%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DISPARITY INDEX</th>
<th>ALL FIRMS</th>
<th>EMPLOYER FIRMS</th>
</tr>
</thead>
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<tr>
<td>All Firms</td>
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<td>100.00</td>
</tr>
<tr>
<td>African American Firms</td>
<td>13.50</td>
<td>34.90</td>
</tr>
<tr>
<td>Native American Firms1</td>
<td>6.29</td>
<td>19.51</td>
</tr>
<tr>
<td>Asian American Firms2</td>
<td>42.21</td>
<td>58.10</td>
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<td>Hispanic American Firms</td>
<td>40.91</td>
<td>94.37</td>
</tr>
<tr>
<td>Nonminority Women Firms3</td>
<td>25.82</td>
<td>28.18</td>
</tr>
</tbody>
</table>

Source: MGT of America, Inc. conducted private sector disparities marketplace analyses based on U.S. Census Bureau, 2012 Survey of Business Owners (SBO) data.

1 Native American consists of American Indian- and Alaska Native-owned firms.
2 Asian American consists of Asian-owned and Native Hawaiian- and Other Pacific Islander-owned firms.
3 Nonminority Women consists of White Women-owned and White Equally Women-/Male-owned firms.
4 S denotes findings were withheld as the estimates did not meet U.S. Census publication standards.

Sales includes total shipments, receipts, revenue, or business done by the firm.
Disparity index is the ratio of the percentage of sales to percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.
CHAPTER 6: PRIVATE SECTOR ANALYSIS

NAICS CODE 81: OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION), STATE MARKETPLACE

Table 6-8 shows the availability, sales, and disparity results for other services (except Public Administration) firms in NAICS Code 81. Firms in this sector primarily engage in equipment and machinery repairing, automotive repair services, electronic and precision equipment repair and maintenance services, providing laundry services, personal care services, and photofinishing services.

There was a total of 111,934 other services (except Public Administration) firms (all firms) in the State of Ohio in 2012, of which 24.44 percent were owned by minorities and 40.58 percent by nonminority women.

- African American firms (disparity index of 16.91) were substantially underutilized, accounting for 18.23 percent of all firms and 3.08 percent of sales.
- Asian American (disparity index of 109.77) firms were overutilized, accounting for 3.54 percent of all firms and close to 3.89 percent of sales.
- Hispanic American firms (disparity index of 42.71) were substantially underutilized, accounting for 2.03 percent of all firms and 0.87 percent of sales.
- Native American firms (disparity index of 26.46) were substantially underutilized, accounting for 0.64 percent of all firms and close to 0.17 percent of sales.
- Nonminority women firms (disparity index of 59.01) were substantially underutilized, accounting for 40.58 percent of all firms and 23.95 percent of sales.

There was a total of 12,453 administrative and support and waste management and remediation services employer firms in the State of Ohio in 2012, of which 9.14 percent were owned by minorities and 35.57 percent by nonminority women.

- African American firms (disparity index 60.30) were substantially underutilized, accounting for 1.82 percent of employer firms and 0.85 percent of sales.
- Asian American firms (disparity index of 61.59) were substantially underutilized, accounting for 6.22 percent of employer firms and 3.83 percent of sales.
- Hispanic American firms (disparity index of 56.80) were substantially underutilized, accounting for 0.89 percent of employer firms and 0.51 percent of sales.
- Native American firms (disparity index of 24.85) were substantially underutilized, accounting for 0.20 percent of employer firms and close to 0.05 percent of sales.
- Nonminority women firms (disparity index of 60.30) were substantially underutilized, accounting for 35.57 percent of employer firms and 21.45 percent of sales.
### TABLE 6-8.
PRIVATE SECTOR CENSUS DISPARITIES
NAICS CODE 81, OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION)
U.S. CENSUS 2012 SURVEY OF BUSINESS OWNERS,
STATE OF OHIO MARKETPLACE

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<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL FIRMS (#)</th>
<th>ALL FIRMS, SALES ($1,000)</th>
<th>EMPLOYER FIRMS (#)</th>
<th>EMPLOYER FIRMS SALES ($1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>111,934</td>
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<td>12,453</td>
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<td>Native American Firms1</td>
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<td>$4,448</td>
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<td>Asian American Firms2</td>
<td>3,966</td>
<td>$434,192</td>
<td>775</td>
<td>$341,779</td>
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<tr>
<td>Hispanic American Firms</td>
<td>2,273</td>
<td>$96,817</td>
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<td>Nonminority Women Firms3</td>
<td>45,425</td>
<td>$2,673,257</td>
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<td>$1,912,431</td>
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</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
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<tr>
<td>African American Firms</td>
<td>18.23%</td>
<td>3.08%</td>
<td>1.82%</td>
<td>0.85%</td>
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<tr>
<td>Native American Firms1</td>
<td>0.64%</td>
<td>0.17%</td>
<td>0.20%</td>
<td>0.05%</td>
</tr>
<tr>
<td>Asian American Firms2</td>
<td>3.54%</td>
<td>3.89%</td>
<td>6.22%</td>
<td>3.83%</td>
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<tr>
<td>Hispanic American Firms</td>
<td>2.03%</td>
<td>0.87%</td>
<td>0.89%</td>
<td>0.51%</td>
</tr>
<tr>
<td>Nonminority Women Firms3</td>
<td>40.58%</td>
<td>23.95%</td>
<td>35.57%</td>
<td>21.45%</td>
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</table>

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</thead>
<tbody>
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<td>All Firms</td>
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<td>Nonminority Women Firms3</td>
<td>59.01</td>
<td>60.30</td>
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</tbody>
</table>

Source: MGT of America, Inc. conducted private sector disparities marketplace analyses based on U.S. Census Bureau, 2012 Survey of Business Owners (SBO) data.

1 Native American consists of American Indian- and Alaska Native-owned firms.
2 Asian American consists of Asian-owned and Native Hawaiian- and Other Pacific Islander-owned firms.
3 Nonminority Women consists of White Women-owned and White Equally Women-/Male-owned firms.
S denotes findings were withheld as the estimates did not meet U.S. Census publication standards.
Sales includes total shipments, receipts, revenue, or business done by the firm.
Disparity index is the ratio of the percentage of sales to percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.
DAYTON, OHIO MSA MARKETPLACE\textsuperscript{209}

Tables 6-9 through 6-10 show the measures of private sector disparities based on U.S. Census, 2012 SBO data for the population of available firms in the Dayton, OH MSA marketplace by race, ethnicity, and gender for construction; wholesale trade; professional, scientific, and technical services; administrative and support and waste management and remediation services; and other services (except public administration).

Based on the analysis of the U.S. Census, 2012 SBO data, overall there remains a significant gap between the market share of M/WBE firms and their share of the Dayton, OH MSA marketplace business population, where data was available.

**NAICS CODE 23: CONSTRUCTION, DAYTON, OH MSA**

Table 6-9 shows the availability, sales, and disparity results for construction (NAICS Code 23). There was a total of 6,769 construction firms (all firms\textsuperscript{210}) in the Dayton, OH area marketplace in 2012, of which 8.44 percent were owned by minorities.

- African American firms (disparity index 121.18) were overutilized, accounting for 5.66 percent of all firms and 6.86 percent of sales.
- Hispanic American firms (disparity index of 54.68) were substantially underutilized, accounting for 2.03 percent of all firms and 0.87 percent of sales.
- Data for Asian American, Native American, and nonminority women firms were withheld; therefore, private sector disparities were not conducted.

There was a total of 1,157 construction employer firms\textsuperscript{211} in the Dayton, OH area marketplace in 2012, of which 3.20 percent were owned by minorities.

- African American firms (disparity index 550.73) were substantially overutilized, accounting for 1.47 percent of all firms and 8.09 percent of sales.
- Data for African American, Asian American, Hispanic American, Native American, and nonminority women firms were withheld; therefore, private sector disparities were not conducted.

\textsuperscript{209} Based on all sectors (NAICS codes 00), there was a total of 62,750 firms (all firms) in the Dayton area marketplace compared to 904,814 for the State of Ohio marketplace. Therefore, the following results by NAICS code may present data (such as the number of firms, firm sales) lower than the State of Ohio marketplace.

\textsuperscript{210} All firms include firms with and without payroll at any time during 2012.

\textsuperscript{211} Employer firms include firms with payroll at any time during 2012.
### TABLE 6-9.
PRIVATE SECTOR CENSUS DISPARITIES
NAICS CODE 23, CONSTRUCTION
U.S. CENSUS 2012 SURVEY OF BUSINESS OWNERS, DAYTON, OH MARKETPLACE

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
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<th>EMPLOYER FIRMS (#)</th>
<th>EMPLOYER FIRMS SALES ($1,000)</th>
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<td>S</td>
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<td>Asian American Firms(^2)</td>
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<td>S</td>
<td>S</td>
<td>S</td>
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<td>Hispanic American Firms</td>
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<td>S</td>
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<td>Nonminority Women Firms(^3)</td>
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<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
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<td>African American Firms</td>
<td>5.66%</td>
<td>6.86%</td>
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<td>Hispanic American Firms</td>
<td>2.30%</td>
<td>1.26%</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Nonminority Women Firms(^3)</td>
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<th>EMPLOYER FIRMS</th>
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<tr>
<td>All Firms</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>African American Firms</td>
<td>121.18</td>
<td>550.73</td>
</tr>
<tr>
<td>Native American Firms(^1)</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Asian American Firms(^2)</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>54.68</td>
<td>S</td>
</tr>
<tr>
<td>Nonminority Women Firms(^3)</td>
<td>S</td>
<td>S</td>
</tr>
</tbody>
</table>

Source: MGT of America, Inc. conducted private sector disparities marketplace analyses based on U.S. Census Bureau, 2012 Survey of Business Owners (SBO) data.

\(^1\) Native American consists of American Indian- and Alaska Native-owned firms.

\(^2\) Asian American consists of Asian-owned and Native Hawaiian- and Other Pacific Islander-owned firms.

\(^3\) Nonminority Women consists of White Women-owned and White Equally Women-/Male-owned firms.

S denotes findings were withheld as the estimates did not meet U.S. Census publication standards.

Sales includes total shipments, receipts, revenue, or business done by the firm.

Disparity index is the ratio of the percentage of sales to percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.
NAICS CODE 42: WHOLESALE TRADE, DAYTON, OH MSA

Table 6-10 shows the availability, sales, and disparity results for wholesale trade (NAICS Code 42). There was a total of 1,440 wholesale trade firms (all firms) in the Dayton, OH marketplace in 2012, of which 5.83 percent were owned by minorities.

- Data for African American, Asian American, Hispanic American, Native American, and nonminority women firms were withheld; therefore, private sector disparities were not conducted.

There was a total of 811 wholesale trade employer firms in the Dayton, OH marketplace in 2012, of which 3.82 percent were owned by minorities.

- Data for African American, Asian American, Hispanic American, Native American, and nonminority women firms were withheld; therefore, private sector disparities were not conducted.

### TABLE 6-10.
PRIVATE SECTOR CENSUS DISPARITIES
NAICS CODE 42, WHOLESALE TRADE
U.S. CENSUS 2012 SURVEY OF BUSINESS OWNERS,
DAYTON, OH MARKETPLACE

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL FIRMS (#)</th>
<th>ALL FIRMS, SALES ($1,000)</th>
<th>EMPLOYER FIRMS (#)</th>
<th>EMPLOYER FIRMS SALES ($1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>1,440</td>
<td>$20,463,071</td>
<td>811</td>
<td>$20,410,427</td>
</tr>
<tr>
<td>African American Firms</td>
<td>59</td>
<td>S</td>
<td>26</td>
<td>S</td>
</tr>
<tr>
<td>Native American Firms</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Asian American Firms</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>25</td>
<td>S</td>
<td>5</td>
<td>S</td>
</tr>
<tr>
<td>Nonminority Women Firms</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
</tbody>
</table>

**PERCENTAGE OF MARKETPLACE**

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>PERCENTAGE OF MARKETPLACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>100.00%</td>
</tr>
<tr>
<td>African American Firms</td>
<td>4.10%</td>
</tr>
<tr>
<td>Native American Firms</td>
<td>S</td>
</tr>
<tr>
<td>Asian American Firms</td>
<td>S</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>S</td>
</tr>
<tr>
<td>Nonminority Women Firms</td>
<td>S</td>
</tr>
</tbody>
</table>

**DISPARITY INDEX**

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL FIRMS</th>
<th>EMPLOYER FIRMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>African American Firms</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Native American Firms</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Asian American Firms</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Nonminority Women Firms</td>
<td>S</td>
<td>S</td>
</tr>
</tbody>
</table>

Source: MGT of America, Inc. conducted private sector disparities marketplace analyses based on U.S. Census Bureau, 2012 Survey of Business Owners (SBO) data.

1 Native American consists of American Indian- and Alaska Native-owned firms.
2 Asian American consists of Asian-owned and Native Hawaiian- and Other Pacific Islander-owned firms.
3 Nonminority Women consists of White Women-owned and White Equally Women-/Male-owned firms.
S denotes findings were withheld as the estimates did not meet U.S. Census publication standards.
Sales includes total shipments, receipts, revenue, or business done by the firm.
Disparity index is the ratio of the percentage of sales to percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.
NAICS CODE 54: PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES, DAYTON, OH MSA

Table 6-11 shows the availability, sales, and disparity results for professional, scientific, and technical services (NAICS Code 54). There was a total of 7,888 professional, scientific and technical services firms (all firms) in the Dayton, OH marketplace in 2012, of which 9.32 percent were owned by minorities.

- African American firms (disparity index of 43.40) were substantially underutilized, accounting for 4.75 percent of all firms and 2.06 percent of sales.
- Asian American firms (disparity index of 263.09) were substantially overutilized, accounting for 2.50 percent of all firms and 6.57 percent of sales.
- Hispanic American firms (disparity index of 24.91) were substantially underutilized, accounting for 1.15 percent of all firms and 0.29 percent of sales.
- Data for Native American and nonminority women firms were withheld; therefore, private sector disparities were not conducted.

There was a total of 1,626 professional, scientific and technical services employer firms in the Dayton, OH marketplace in 2012, of which 4.80 percent were owned by minorities.

- African American firms (disparity index of 94.77) were underutilized, accounting for 2.09 percent of employer firms and 1.98 percent of sales.
- Asian American firms (disparity index of 304.23) were substantially overutilized, accounting for 2.21 percent of employer firms and 6.74 percent of sales.
- Hispanic American firms (disparity index of 55.05) were substantially underutilized, accounting for 0.49 percent of employer firms and 0.27 percent of sales.
- Data for Native America and nonminority women firms were withheld; therefore, private sector disparities were not conducted.
### TABLE 6-11.
PRIVATE SECTOR CENSUS DISPARITIES
NAICS CODE 54, PROFESSIONAL, SCIENTIFIC AND TECHNICAL SERVICES
U.S. CENSUS 2012 SURVEY OF BUSINESS OWNERS, DAYTON, OH MARKETPLACE

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL FIRMS (#)</th>
<th>ALL FIRMS, SALES ($1,000)</th>
<th>EMPLOYER FIRMS (#)</th>
<th>EMPLOYER FIRMS SALES ($1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>7,888</td>
<td>$3,675,209</td>
<td>1,626</td>
<td>$3,497,072</td>
</tr>
<tr>
<td>African American Firms</td>
<td>375</td>
<td>$75,837</td>
<td>34</td>
<td>$69,300</td>
</tr>
<tr>
<td>Native American Firms(^1)</td>
<td>72</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Asian American Firms(^2)</td>
<td>197</td>
<td>$241,487</td>
<td>36</td>
<td>$235,550</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>91</td>
<td>$10,563</td>
<td>8</td>
<td>$9,472</td>
</tr>
<tr>
<td>Nonminority Women Firms(^3)</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
</tbody>
</table>

### PERCENTAGE OF MARKETPLACE

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL FIRMS (%)</th>
<th>EMPLOYER FIRMS (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>African American Firms</td>
<td>4.75%</td>
<td>2.06%</td>
</tr>
<tr>
<td>Native American Firms(^1)</td>
<td>0.91%</td>
<td>2.09%</td>
</tr>
<tr>
<td>Asian American Firms(^2)</td>
<td>2.50%</td>
<td>6.57%</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>1.15%</td>
<td>0.29%</td>
</tr>
<tr>
<td>Nonminority Women Firms(^3)</td>
<td>S</td>
<td>S</td>
</tr>
</tbody>
</table>

### DISPARITY INDEX

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL FIRMS</th>
<th>EMPLOYER FIRMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>African American Firms</td>
<td>43.40</td>
<td>94.77</td>
</tr>
<tr>
<td>Native American Firms(^1)</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Asian American Firms(^2)</td>
<td>263.09</td>
<td>304.23</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>24.91</td>
<td>55.05</td>
</tr>
<tr>
<td>Nonminority Women Firms(^3)</td>
<td>S</td>
<td>S</td>
</tr>
</tbody>
</table>

Source: MGT of America, Inc. conducted private sector disparities marketplace analyses based on U.S. Census Bureau, 2012 Survey of Business Owners (SBO) data.

\(^1\) Native American consists of American Indian- and Alaska Native-owned firms.

\(^2\) Asian American consists of Asian-owned and Native Hawaiian- and Other Pacific Islander-owned firms.

\(^3\) Nonminority Women consists of White Women-owned and White Equally Women-/Male-owned firms.

S denotes findings were withheld as the estimates did not meet U.S. Census publication standards.

Sales includes total shipments, receipts, revenue, or business done by the firm.

Disparity index is the ratio of the percentage of sales to percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.
NAICS CODE 56: ADMINISTRATIVE AND SUPPORT AND WASTE MANAGEMENT AND REMEDIATION SERVICES, DAYTON, OH MSA

Table 6-12 shows the availability, sales, and disparity results for administrative and support and waste management and remediation services (NAICS Code 56). There were a total 4,919 administrative and support and waste management and remediation services firms (all firms) in the Dayton, OH marketplace in 2012, of which 16.73 percent were owned by minorities.

- African American firms (disparity index of 11.76) were substantially underutilized, accounting for 14.58 percent of all firms and 1.71 percent of sales.
- Hispanic American firms (disparity index of 11.03) were substantially underutilized, accounting for 1.08 percent of all firms and 0.41 percent of sales.
- Data for Asian American, Native American and nonminority women firms were withheld; therefore, private sector disparities were not conducted.

There was a total of 741 administrative and support and waste management and remediation services employer firms in the Dayton, OH marketplace in 2012, of which 2.97 percent were owned by minorities.

- African American firms (disparity index of 28.28) were substantially underutilized, accounting for 2.83 percent of employer firms and 0.80 percent of sales.
- Data for Asian American, Hispanic American, Native American, and nonminority women firms were withheld; therefore, private sector disparities were not conducted.
## TABLE 6-12.
PRIVATE SECTOR CENSUS DISPARITIES
NAICS CODE 56
ADMINISTRATIVE AND SUPPORT / WASTE MANAGEMENT AND REMEDIATION SERVICES
U.S. CENSUS 2012 SURVEY OF BUSINESS OWNERS,
DAYTON, OH MARKETPLACE

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL FIRMS (#)</th>
<th>ALL FIRMS, SALES ($1,000)</th>
<th>EMPLOYER FIRMS (#)</th>
<th>EMPLOYER FIRMS SALES ($1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>4,919</td>
<td>$1,034,971</td>
<td>741</td>
<td>$955,552</td>
</tr>
<tr>
<td>African American Firms</td>
<td>717</td>
<td>$17,741</td>
<td>21</td>
<td>$7,657</td>
</tr>
<tr>
<td>Native American Firms¹</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Asian American Firms²</td>
<td>53</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>53</td>
<td>$4,278</td>
<td>1</td>
<td>S</td>
</tr>
<tr>
<td>Nonminority Women Firms³</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
</tbody>
</table>

### PERCENTAGE OF MARKETPLACE

<table>
<thead>
<tr>
<th></th>
<th>All Firms</th>
<th>African American Firms</th>
<th>Native American Firms¹</th>
<th>Asian American Firms²</th>
<th>Hispanic American Firms</th>
<th>Nonminority Women Firms³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100.00%</td>
<td>14.58%</td>
<td>1.71%</td>
<td>2.83%</td>
<td>0.80%</td>
<td>S</td>
</tr>
</tbody>
</table>

### DISPARITY INDEX

<table>
<thead>
<tr>
<th></th>
<th>All FIRMS</th>
<th>EMPLOYER FIRMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>African American Firms</td>
<td>11.76</td>
<td>28.28</td>
</tr>
<tr>
<td>Native American Firms¹</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Asian American Firms²</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>38.36</td>
<td>S</td>
</tr>
<tr>
<td>Nonminority Women Firms³</td>
<td>S</td>
<td>S</td>
</tr>
</tbody>
</table>

Source: MGT of America, Inc. conducted private sector disparities marketplace analyses based on U.S. Census Bureau, 2012 Survey of Business Owners (SBO) data.

¹ Native American consists of American Indian- and Alaska Native-owned firms.
² Asian American consists of Asian-owned and Native Hawaiian- and Other Pacific Islander-owned firms.
³ Nonminority Women consists of White Women-owned and White Equally Women-/Male-owned firms.
S denotes findings were withheld as the estimates did not meet U.S. Census publication standards.
Sales includes total shipments, receipts, revenue, or business done by the firm.
Disparity index is the ratio of the percentage of sales to percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.
NAICS CODE 81: OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION), DAYTON, OH MSA

Table 6-13 shows the availability, sales, and disparity results for NAICS Code, other services (except public administration). There were a total 8,135 other services (except public administration) firms (all firms) in the Dayton, OH marketplace in 2012, of which 26.45 percent were owned by minorities.

- African American firms (disparity index of 24.48) were substantially underutilized, accounting for 23.12 percent of all firms and 5.66 percent of sales.
- Native American firms (disparity index of 14.21) were substantially underutilized, accounting for 0.42 percent of all firms and 0.06 percent of sales.
- Hispanic American firms (disparity index of 28.75) were substantially underutilized, accounting for 0.98 percent of all firms and 0.28 percent of sales.
- Data for Asian American and nonminority women firms were withheld; therefore, private sector disparities were not conducted.

There was a total of 729 other services (except public administration) employer firms in the Dayton, OH marketplace in 2012, of which 8.37 percent were owned by minorities.

- African American firms (disparity index of 103.40) were overutilized, accounting for 1.10 percent of employer firms and 1.13 percent of sales.
- Data for Hispanic American, Asian American, nonminority women, and Native American firms were withheld; therefore, private sector disparities were not conducted.
### TABLE 6-13.
PRIVATE SECTOR CENSUS DISPARITIES
NAICS CODE 81, OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION)
U.S. CENSUS 2012 SURVEY OF BUSINESS OWNERS,
DAYTON, OH MARKETPLACE

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL FIRMS (#)</th>
<th>ALL FIRMS, SALES ($1,000)</th>
<th>EMPLOYER FIRMS (#)</th>
<th>EMPLOYER FIRMS SALES ($1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>8,135</td>
<td>$496,581</td>
<td>729</td>
<td>$353,658</td>
</tr>
<tr>
<td>African American Firms</td>
<td>1,881</td>
<td>$28,110</td>
<td>8</td>
<td>$4,013</td>
</tr>
<tr>
<td>Native American Firms(^1)</td>
<td>34</td>
<td>$295</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Asian American Firms(^2)</td>
<td>157</td>
<td>S</td>
<td>53</td>
<td>S</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>80</td>
<td>$1,404</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Nonminority Women Firms(^3)</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
</tbody>
</table>

**PERCENTAGE OF MARKETPLACE**

<table>
<thead>
<tr>
<th></th>
<th>ALL FIRMS (%)</th>
<th>EMPLOYER FIRMS (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>African American Firms</td>
<td>23.12%</td>
<td>5.66%</td>
</tr>
<tr>
<td>Native American Firms(^1)</td>
<td>0.42%</td>
<td>0.06%</td>
</tr>
<tr>
<td>Asian American Firms(^2)</td>
<td>1.93%</td>
<td>S</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>0.98%</td>
<td>0.28%</td>
</tr>
<tr>
<td>Nonminority Women Firms(^3)</td>
<td>S</td>
<td>S</td>
</tr>
</tbody>
</table>

**DISPARITY INDEX**

<table>
<thead>
<tr>
<th></th>
<th>ALL FIRMS</th>
<th>EMPLOYER FIRMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Firms</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>African American Firms</td>
<td>24.48</td>
<td>103.40</td>
</tr>
<tr>
<td>Native American Firms(^1)</td>
<td>14.21</td>
<td>S</td>
</tr>
<tr>
<td>Asian American Firms(^2)</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>28.75</td>
<td>S</td>
</tr>
<tr>
<td>Nonminority Women Firms(^3)</td>
<td>S</td>
<td>S</td>
</tr>
</tbody>
</table>

Source: MGT of America, Inc. conducted private sector disparities marketplace analyses based on U.S. Census Bureau, 2012 Survey of Business Owners (SBO) data.

\(^1\) Native American consists of American Indian- and Alaska Native-owned firms.

\(^2\) Asian American consists of Asian-owned and Native Hawaiian- and Other Pacific Islander-owned firms.

\(^3\) Nonminority Women consists of White Women-owned and White Equally Women-/Male-owned firms.

S denotes findings were withheld as the estimates did not meet U.S. Census publication standards.

Sales includes total shipments, receipts, revenue, or business done by the firm.

Disparity index is the ratio of the percentage of sales to percentage of available firms multiplied by 100.00. A disparity index below 80.00 indicates a substantial level of disparity.

#### 6.3.2 SBO CONCLUSION

The SBO analysis shows consistent underutilization of M/WBE firms relative to their availability in the market area, validating the overarching research question of whether these disparities exist for the broader private sector, and is compelling for the City to maintain associated remedies to avoid passive participation in discrimination, irrespective of circumstances in the public sector.

Further, each of the five procurement categories analyzed showed substantial disparity among defined M/WBE classes where sufficient data were available.
6.4 ANALYSIS OF RACE, ETHNICITY, AND GENDER EFFECTS ON SELF-EMPLOYMENT AND EARNINGS

This section examines further evidence regarding the overarching research question of whether disparities exist in the private sector and addresses the two more specific questions:

2. Are racial, ethnic, and gender minority groups less likely than nonminority males (non-M/WBEs) to be self-employed?

3. Do racial, ethnic, and gender status have an impact on individuals’ earnings?

This is achieved through an examination of the effects of race, ethnicity, and gender, alongside controls for individual economic and demographic characteristics, on individuals’ participation in the private sector as self-employed business operators, as well as the effects of these variables on their earnings. The analysis is targeted to four categories of private sector business activity (Construction, Professional Services, Other Services, and Goods & Supplies) that generally align with the City procurement categories defined for the study, noting that Professional Services also encompasses Architecture and Engineering, due to observations in this category being too limited in this subset to support separate analysis.

Adopting the methodology and variables employed by a City of Denver disparity study (see Concrete Works v. City and County of Denver212), we use Public Use Microdata Samples (PUMS) data derived from the 2011-2016 American Community Survey (ACS), to which we apply appropriate regression statistics to draw conclusions.

6.4.1 LINKS TO BUSINESS FORMATION AND MAINTENANCE

Research in economics consistently finds group differences by race, ethnicity, and gender in rates of business formation.213 We know, for instance, that in general most minorities and women214 have a lower median age than do nonminority males (ACS PUMS, 2011-2016) and that, in general, the likelihood of being self-employed increases with age (ACS PUMS, 2011-2016). An examination of these variables within the context of a disparity study, therefore, seeks to control for these other important demographic and economic variables in conjunction with race, ethnicity, and gender – since they also influence group rates of business formation – to determine if we can assert that inequities specific to minorities and women are demonstrably present to warrant consideration of public sector remedies. Questions about marketplace dynamics affecting self-employment—or, more specifically, the odds of being able to form one’s own business and then to excel (i.e., generate earnings growth)—are at the heart of disparity analysis research.

6.4.2 STATISTICAL MODELS AND METHODS

To answer the research questions identified for this section, we employed two multivariate regression techniques, respectively: (1) logistic regression, and (2) linear regression. Logistic regression is an econometric method that allows for analyzing dichotomous dependent variables. The results can then be

212 Concrete Works v. City and County of Denver, 321 F.3 950 (10th Cir. 2003).
213 See Journal of Econometrics, Vol. 61, Issue 1, devoted entirely to the econometrics of labor market discrimination and segregation.
214 Minority groups here refers to African American, Asian Americans, Hispanic Americans and Native Americans.
translated into log likelihoods that allows for an examination of how likely one variable is to be true when compared to another variable. Linear regression is an econometric method that helps explain the linear relationship between the dependent variable and the independent variables – how substantially and in what direction each of the independent variables influence the dependent variable. This will help analyze the direct impact that being part of a specific minority or gender group has on earnings.

To understand the appropriate application of these regression techniques, it is helpful to explore in greater detail the variables inherent in these questions. There are two general categories of variables employed in the regression techniques: (1) dependent variables and (2) independent variables.

- Dependent variables are the phenomena to be explained by influences such as age, race, gender, and disability status (i.e., the independent or “explanatory” variables).
- The first dependent variable is the probability of self-employment status, which is a binary, categorical variable based on two possible values: 0 (not self-employed) versus 1 (self-employed).
  - Logistic regression is appropriately used to perform an analysis in which the dependent variable is binary and categorical, and therefore was employed for the analysis of self-employment.215
- The second dependent variable is earnings from self-employment, which is a continuous variable with many possible values.
  - Continuous variables are best explained using simple linear regression.

6.4.3 THE INFLUENCES OF RACE, ETHNICITY, AND GENDER ON SELF EMPLOYMENT

To derive a set of variables known to predict employment status (self-employed/not self-employed), we used the 2011-2016 U.S. Census ACS five percent PUMS data. Logistic regression was used to calculate the probability of being self-employed, the dependent variable, with respect to socioeconomic and demographic characteristics selected for their potential to influence the likelihood of self-employment. The sample for the analysis was limited to labor force participants who met the following criteria:

- Resident of Dayton, OH MSA216.
- Self-employed in construction, professional services, other services, architecture and engineering,217 or goods and supplies.
- Employed full-time (more than 35 hours a week).

215 Logistical regression, or logit, models generate predicted probabilities that are almost identical to those calculated by a probit procedure, used in Concrete Works v. City and County of Denver case. Logit, however, has the added advantage of dealing more effectively with observations at the extremes of a distribution. For a complete explanation, see Interpreting Probability Models (T.F. Liao, Text 101 in the Sage University series).

216 ACS PUMS data does not include county geographic breaks so the DAYTON, OH MSA was used as it is similar to the relevant market area.

217 Due to inadequate sample size for all races in the architecture and engineering PUMS 2015 data, the architecture and engineering categories were merged with the professional services category.
• 18 years of age or older.
• Employed in the private sector.

Next, we derived the following variables\textsuperscript{218} hypothesized as predictors of employment status:

• **Race and Gender:** African American, Asian American, Hispanic American, Native American, nonminority woman, nonminority male.

• **Availability of Capital:** Homeownership, home value, mortgage rate, unearned income, residual income.

• **Marital Status.**

• **Ability to Speak English Well.**

• **Disability Status:** From individuals’ reports of health-related disabilities.

• **Age and Age Squared:** Squaring the age variable acknowledges the positive, curvilinear relationship between each year of age and earnings.

• **Owner’s Level of Education.**

• **Number of Individuals Over the Age of 65 Living in Household.**

• **Number of Children Under the Age of 18 Living in Household.**

This analysis examined the statistical effects of these variables on the likelihood of being self-employed in the Dayton, OH MSA. From the inverse of this value, we can interpret a likelihood value of its effect on self-employment. The results are interpretable based on the inverse of the “odds ratios”. For example, the “odds ratio” for an African American is 0.410 as seen in the top portion of Table 6-14, while the inverse of this is 2.44, as seen in the lower portion of this table. This inverse value means that a nonminority male is 2.44 times more likely to be self-employed than an African American. Comparisons are made to nonminority males as a control group, where the influence of any of the race, ethnicity, or gender variables is considered absent. In this sense, the circumstance of the nonminority male is considered to be a baseline for what might be expected for self-employment rates for this market – with race, ethnicity, or gender variables being tested for their positive or negative influence.

\textsuperscript{218} The variables used in this analysis were modeled after those incorporated in the same analysis from Concrete Works v. City and County of Denver.
### TABLE 6-14.

**SELF-EMPLOYMENT ODDS RATIOS AND THEIR INVERSES FOR MINORITY GROUPS RELATIVE TO NONMINORITY MALES AFTER CONTROLLING FOR DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS**

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL INDUSTRIES</th>
<th>CONSTRUCTION</th>
<th>PROFESSIONAL SERVICES</th>
<th>OTHER SERVICES</th>
<th>GOODS &amp; SUPPLIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American Firms</td>
<td>0.410</td>
<td>0.471</td>
<td>0.184</td>
<td>0.766</td>
<td>0.185</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>0.496</td>
<td>0.471</td>
<td>0.493</td>
<td>0.654</td>
<td>0.339</td>
</tr>
<tr>
<td>Asian American Firms</td>
<td>0.806</td>
<td>1.051</td>
<td>0.416</td>
<td>1.302</td>
<td>0.637</td>
</tr>
<tr>
<td>Native American Firms</td>
<td>0.777</td>
<td>1.712</td>
<td>0.310</td>
<td>0.726</td>
<td>1.012</td>
</tr>
<tr>
<td>Nonminority Women Firms</td>
<td>0.481</td>
<td>0.483</td>
<td>0.158</td>
<td>1.053</td>
<td>0.661</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL INDUSTRIES</th>
<th>CONSTRUCTION</th>
<th>PROFESSIONAL SERVICES</th>
<th>OTHER SERVICES</th>
<th>GOODS &amp; SUPPLIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American Firms</td>
<td>2.437</td>
<td>2.125</td>
<td>5.431</td>
<td>1.305</td>
<td>5.413</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>2.015</td>
<td>2.121</td>
<td>2.030</td>
<td>1.530</td>
<td>2.954</td>
</tr>
<tr>
<td>Asian American Firms</td>
<td>1.241</td>
<td>0.952</td>
<td>2.401</td>
<td>0.768</td>
<td>1.571</td>
</tr>
<tr>
<td>Native American Firms</td>
<td>1.287</td>
<td>0.000</td>
<td>3.228</td>
<td>1.377</td>
<td>0.988</td>
</tr>
<tr>
<td>Nonminority Women Firms</td>
<td>2.077</td>
<td>2.072</td>
<td>6.329</td>
<td>0.949</td>
<td>1.513</td>
</tr>
</tbody>
</table>

Source: PUMS data from 2011-2016 American Community Survey (Dayton, OH MSA) and MGT, calculations using SPSS Statistics software. Note: Shading and **bold** indicates the estimated “odds ratio” for the group was statistically significant at 95% confidence interval. The architecture and engineering business industry was excluded from this analysis because of the insufficient data.

Are racial, ethnic, and gender minority groups less likely than nonminority males (non-M/WBEs) to be self-employed? The findings show that racial, ethnic, and gender minority groups are nearly universally less likely than nonminority males to be self-employed. For example, nonminority males were 5.43 times more likely than African Americans to be self-employed in the Professional Services; and nonminority males were 2.07 times more likely than nonminority women to be self-employed in the Construction industry.

With respect to the over-arching research question, these findings again communicate that disparities do exist in the market. Within this circumstance and in response to the specific research question, it is also evident that racial, ethnic, and gender variables have a statistically significant negative impact on rates of self-employment after other factors are controlled for.

#### 6.4.4 THE INFLUENCES OF RACE, ETHNICITY, AND GENDER ON INDIVIDUAL EARNINGS

To explore whether there are any measurable impacts on earnings, we compared self-employed, minority, and women entrepreneurs’ earnings to those of nonminority males in the Dayton, OH MSA, when the effect of other demographic and economic characteristics were controlled or neutralized. That is, we were able to examine the earnings of self-employed individuals of similar education levels, ages, etc., to permit earnings comparisons more purely by race, ethnicity, and gender.

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Statistically significant is the likelihood that a relationship between two or more variables is caused by something other than random chance. MGT incorporates the statistical 95% confidence interval. This means that if the same population is sampled on numerous occasions and interval estimates are made on each occasion, the resulting intervals would bracket the true population parameter in approximately 95% of the cases.
First, we derived a set of independent variables known to predict earnings, including:

- **Race and Gender**: African American, Asian American, Hispanic American, Native American, nonminority woman, nonminority males.
- **Availability of Capital**: Homeownership, home value, mortgage rate, unearned income, residual income.
- **Marital Status**.
- **Ability to Speak English Well**.
- **Disability Status**: From individuals’ reports of health-related disabilities.
- **Age and Age Squared**: Squaring the age variable acknowledges the positive, curvilinear relationship between each year of age and earnings.
- **Owner’s Level of Education**.

For the dependent variable, we used 2011-2016 wages from employment for self-employed individuals, as reported in the 5 percent PUMS data.

This analysis examined the statistical effects of these variables on income from self-employment for business owners in Dayton, OH MSA. As yielded by the linear regression analysis, each number in Table 6-15 represents a percent change in earnings associated with the introduction of the variable (business ownership classification) in the left-hand column. For example, across all industries, the adjustment factor for an African American is -0.335, meaning that an African American would be predicted to earn 33.50 percent less than a nonminority male, all other variables considered or controlled for.

**TABLE 6-15.**

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL INDUSTRIES</th>
<th>CONSTRUCTION</th>
<th>PROFESSIONAL SERVICES</th>
<th>OTHER SERVICES</th>
<th>GOODS &amp; SUPPLIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American Firms</td>
<td>-0.335</td>
<td>0.000</td>
<td>-0.579</td>
<td>-0.201</td>
<td>-1.083</td>
</tr>
<tr>
<td>Hispanic American Firms</td>
<td>-0.337</td>
<td>-0.417</td>
<td>0.046</td>
<td>-0.220</td>
<td>-0.722</td>
</tr>
<tr>
<td>Asian American Firms</td>
<td>-0.177</td>
<td>-0.035</td>
<td>1.168</td>
<td>-0.359</td>
<td>-1.241</td>
</tr>
<tr>
<td>Native American Firms</td>
<td>-0.358</td>
<td>-0.234</td>
<td>0.069</td>
<td>-0.217</td>
<td>-0.352</td>
</tr>
<tr>
<td>Nonminority Women Firms</td>
<td>-0.348</td>
<td>-0.259</td>
<td>-0.258</td>
<td>-0.373</td>
<td>-0.339</td>
</tr>
</tbody>
</table>

Source: PUMS data from 2011-2016 American Community Survey (Dayton, OH MSA) and MGT, calculations using SPSS Statistics software. Note: Shading and bold indicates the estimated “elasticities” for the group were statistically significant at 95% confidence interval. The architecture and engineering business industry was excluded from this analysis because of insufficient data. In terms of the regression “elasticity” means the percent change resulting by being a member of one of the M/WBE groups.

The findings provide further positive evidence that disparities exist in the private sector of the City’s market area, compelling the continuation of remedies in the domain of the government’s influence.
CHAPTER 6: PRIVATE SECTOR ANALYSIS

The findings also provide affirmative evidence to the more specific questions regarding impacts on earning, demonstrating that self-employed racial, ethnic, and gender minority groups earn less than their nonminority male counterparts, all variables considered.

6.5 CONCLUSIONS

Analysis of the U.S. Census 2012 SBO data and the PUMS 2011-2016 data demonstrate, in response to the over-arching research question driving this analysis, that disparities do exist for M/WBE firms operating in the private sector within the City’s market area. Thus, based on guidance offered by the courts into this domain, the City may have a compelling interest to continue its current M/WBE program to avoid becoming a passive participant to discrimination.

To the more specific research questions:

- Findings from the U.S Census 2012 SBO data indicate that there are substantial disparities for most M/WBE firms across industry sectors resembling the procurement categories identified for this study.
- Findings from the 2011-2016 PUMS data indicate that:
  - M/WBE firms were significantly less likely than nonminority males to be self-employed.
  - If they were self-employed, M/WBE firms earned significantly less in 2011-2016 than did self-employed nonminority males.

In light of these findings, credence may be given to the proposition established in Croson, which suggested a government could be a passive participant in private sector discrimination if it did not act to counter these dynamics at least within the domain of its influence. This evidence stands alongside the disparities observed in public sector contracting to illustrate the substantial inequities that continue to exist in the City’s marketplace, underscoring its compelling interest in continuing to pursue remedies to address these extant gaps.
CHAPTER 7. ANECDOTAL ANALYSIS

2019 Third Generation Disparity Study

City of Dayton
7.1 INTRODUCTION

This chapter examines anecdotal evidence of conditions and obstacles faced by M/WBE firms in the study market area in their experiences working with the City of Dayton (the City), the City’s prime contractors, and the private sector. The collection and analysis of anecdotal data was focused on firms registered to do business with the City and helps to explain and provide context for the quantitative data analyses found in Chapter 4, Market Area and Utilization Analyses and Chapter 5, Availability and Disparity Analyses. In conjunction with the quantitative data, MGT also was able to draw inferences from the anecdotal data as to the prevalence of obstacles perceived as limiting the participation of M/WBEs and other firms in the City’s procurement transactions.

Unlike conclusions derived from other types of analysis in this report, the conclusions derived from anecdotal analysis do not rely solely on quantitative data. Rather, the analysis in this chapter utilizes qualitative data to describe the context of the examined social, political, and economic environment in which all businesses and other relevant entities applicable to the study operate. Anecdotal comments in this chapter detail the perceptions and opinions of individuals, and the evidentiary weight of these opinions depends on how much they are corroborated by statements of others and the quantitative data that has been compiled to substantiate these perceptions.

The collective anecdotal activities gathered input from over 972 business owners or representatives regarding their opinions and perceptions of their experiences working with the City, or on City projects as subcontractors.

7.2 METHODOLOGY

The blueprint for collecting and analyzing anecdotal information for this Study was provided by the U.S. Supreme Court in City of Richmond v. J.A. Croson, 488 U.S. 469, 109 S.Ct. 706 (1989) (Croson). In that case, the Court held that race-conscious programs must be supported by strong documentation of discrimination, including evidentiary findings that go beyond the demographics of a community. Anecdotal information can bolster the quantitative analyses of contract expenditures to explain whether or not minority business creation, growth, and retention are negatively affected by discrimination. In Croson, the Court held that anecdotal accounts of discrimination could help establish a compelling interest for a local government to institute a race-conscious remedy. Moreover, such information can provide a local entity with a firm basis for fashioning a program that is narrowly tailored to remedy identified forms of marketplace discrimination and other barriers to M/WBE participation in contract opportunities. Further discussion regarding the basis and motivation for collection and analysis of anecdotal data is contained in Chapter 2, Legal Framework.
MGT’s experience conducting disparity studies has shown that utilizing multiple methods of anecdotal data collection provides more comprehensive information than methodologies using a single-pronged approach. For this reason, MGT used a combination of surveys, community meetings, online comments, focus groups, and one-on-one interviews with businesses to collect anecdotal information that are analyzed to identify issues and concerns that were common to businesses in the market area. In addition to the anecdotal data collection from area businesses, MGT conducted interviews and meetings with area trade associations, and business organizations to gather anecdotes on their perceptions on City’s procurement process and impact of the M/WBE program to firms. While the collection of these anecdotes is not required by the courts, input from advocacy and professional development organizations give a third-party perspective of M/WBE issues.

### 7.2.1 OUTREACH

To establish a base for the outreach efforts MGT developed a master vendor database of firms that incorporated data sets from the City’s vendor and certification lists; membership lists provided by area trade associations and business organizations; and vendor and certification lists collected from other relevant public agencies. This database was created to ensure that a broad range of firms in the marketplace were notified about the qualitative data collection activities.

Next, MGT worked with the City to identify various outreach methods geared to inform and encourage community involvement and engagement for the anecdotal data collection activities. One such method was the creation of a disparity study website that informed the community of the project objectives, work tasks, anecdotal activities, frequently asked questions, and general information about the study. The website allowed businesses to submit online comments directly to MGT about their experiences doing business or attempting to do business with the City. Additional outreach methods included:

- MGT and the City identified area trade associations and business organizations, referred to as stakeholders for purposes of this report, whose insights would be valuable to understanding the dynamics and perceptions of the vendor community. The stakeholders were notified via e-mail blasts of anecdotal data collection activities and asked to encourage their members to participate.
- Business information surveys, provided in additional languages as well, gathered business information on firms in the marketplace such as primary business industry, race, ethnicity, gender, and business contact information.
- Email blasts to the business community to increase awareness and engagement.
- Printed and digital ads (included in various ethnic media publications).

### 7.2.2 SAMPLING

MGT’s sampling methodology for the in-depth interviews, and custom business surveys was to randomly select firms from the study’s master vendor database. Each sample pulled included M/WBE and non-M/WBE firms in each procurement category studied in this report. To avoid contacting business multiple times the database was cross referenced with previous extractions to ensure that firms did not participate in more than one anecdotal activity.
7.2.3 CUSTOM CENSUS BUSINESS SURVEY

The custom census business survey asked respondents to provide information on business ownership, demographics and structure; work bid or performed as prime contractors with the City; work bid or performed as subcontractors to City prime contractors; whether the respondent firm bid or performed work in the private sector; and any perceived barriers to doing business with the City or its primes that the respondents believed they had experienced during the study period. The survey was administered via telephone and online survey to a randomly selected list of firms.

Disparity study survey analyses are commonly plagued by sample size limitations, especially where the size of the minority business population is insufficient to permit a valid and representative sample. This problem is compounded when analyses are stratified further by business category. Insufficient sample size can pose problems for the statistical confidence of the results. MGT attempted to collect data in proportion to the distribution of M/WBEs and non-M/WBEs in the relevant market area. Although MGT’s goal is to report data that can satisfy the 95 percent confidence level, this does not mean that data should not be reported because of slightly reduced confidence intervals, especially when extreme due diligence has been exercised in attempting to meet the 95 percent standard. For this reason, our conclusions from the responses received do not reflect a statistical finding for Native American firms in the anecdotal findings. The survey of vendors questionnaire is included in this report as Appendix D, Custom Census Business Survey Instrument.

The data from the survey responses were analyzed to determine the types of firms represented in the findings included within this chapter. These survey demographics are included as Appendix H, Analysis of Custom Census Business Surveys.

7.2.4 COMMUNITY MEETINGS

Area businesses were invited to attend one of three community meetings. As a precursor to collecting comments, attendees, were provided a presentation outlining the study’s objectives, work tasks Following the presentation, attendees who wanted to provide comments did so individually.

MGT hosted the community meetings on September 4 & 6, 2018 and October 27, 2018. All three meetings were held the Dayton Metro Library – Northwest Branch, 2410 Philadelphia Dr.

MGT and the City engaged the outreach efforts as described in Section 7.2.1 to invite the business community. Since the community meetings were open to the public, firms that participated in the community meetings may have been randomly selected for other anecdotal activities.

7.2.5 IN-DEPTH INTERVIEWS

The in-depth interviews were one-on-one interviews with business owners or representatives to gather information from M/WBE and non-M/WBE firms regarding their primary line of business, ethnicity, gender, education/training background of the owner, business history, size and gross revenues during selected calendar and/or fiscal years, and information about the firms’ experiences in attempting to do, and conducting business with the City (both directly as a prime and/or as a subcontractor). The in-depth interviews were structured settings in which an interviewer or facilitator used an interview guide (Appendix F) to petition input from participants but provided more latitude for additional information
gathering on issues that are unique to the respondents’ experiences than the community meetings. The interviewer made no attempt to prompt or guide responses from the participants, although follow-up questions were asked to obtain further clarification or information as necessary and appropriate. Before the interviews began, each participant attested that their responses were given freely and were true and accurate reflections of their experience with the City or its prime contractors.

### 7.2.6 Stakeholder Outreach

Outreach to stakeholders (trade associations and business organizations) was beneficial to the outreach efforts because their assistance extended communication efforts to inform and engage the business community in anecdotal activities. Stakeholders were asked to disseminate community meetings notices and anecdotal data collection information to their members or constituents.

Stakeholders were also asked to provide MGT with a copy of membership or vendor lists which were used to help build the master vendor database used for outreach. As an alternative to providing their membership or vendor lists, an online form was provided to allow individual members to submit their business information directly to the consultant team. The organizations and associations included in these efforts are identified in Appendix I, List of Trade Associations and Business Organizations.

As mentioned, stakeholders were contacted to participate in interviews and meetings to gather their input, perceptions, and experiences on the effectiveness of the M/WBE Program and barriers firms face when contracting or attempts to contract with the City or its primes.

### 7.2.7 Online Comments

Like the community meetings, the option to provide written comments via the disparity study website allowed firms who were not selected for interviews, surveys, etc. expanded anecdotal data collection. Comments were accepted until outreach efforts were concluded to ensure that firms were allowed time to submit their comments.

### 7.3 Demographics

The self-reported demographic characteristics of anecdotal participants by data collection activity type are presented in the sections below.

#### 7.3.1 Custom Census Business Surveys

This survey collected 873 responses from firm owners and representatives in the City’s relevant market area. Figure 7-1 provides the race, ethnicity, and gender of respondents. M/WBE firms accounted for 30.47 percent of the total respondents with Nonminority Female firms making up 21.08 percent of those that participated followed by African American firms at 4.12 percent, Asian Americans at 3.21 percent, Hispanic Americans at 1.60 percent, and Native Americans at 0.46 percent. In total, there were 266 M/WBE respondents.
7.3.2 COMMUNITY MEETINGS

Three community meetings were held, and 34 business owners and representatives participated representing varying industries, including construction, supplies, engineering, educational consulting, and environmental consulting. Official testimonies were received and recorded from 12 attendees. The racial, ethnic and gender compositions of the all attendees were as follow in Figure 7-2.
7.3.3 IN-DEPTH FIRM INTERVIEWS
The in-depth interviews were conducted with randomly selected firms extracted from the master vendor database and located in the City’s relevant market area.\textsuperscript{220} MGT cross referenced the list of firms for the interviews to ensure they were not previously selected for other anecdotal activities. In total, 65 firms were interviewed. The racial and ethnic composition of the firms that completed an interview are illustrated in Figure 7-3. There were no Asian American firms interviewed for the study.

7.3.4 ONLINE COMMENTS
Online comments were available via the disparity study website to firms to provide their comments regarding their experiences doing business with the City, its primes, or in the private marketplace. There were zero comments received via the disparity study website.

7.4 FINDINGS
The findings included below reflect the opinions and perceptions of anecdotal participants characterized in the preceding demographic summary. As such, the themes are drawn from a very broad base of participants reflecting a comprehensive array of viewpoints and experiences regarding work with the City or its primes.

\textsuperscript{220} See Chapter 4, Market Area and Utilization Analyses.
In the successive sections, findings are generally organized around themes of concerns expressed by vendors, with evidence divided between (1) items identified through qualitative input from anecdotal research participants (interviews and open-ended comments) and (2) quantitative summaries of perceptions collected through the custom census business surveys. In some cases, content is limited to one category of findings or the other based on the scope of information collected through either medium.

### 7.4.1 PROCUREMENT PROCESS ISSUES AND CHALLENGES OF M/WBES

Procurement process issues and challenges are frequent issues of concern among vendors in many markets, with Dayton not an exception. The perception of fair and equal opportunity to bid or propose on City contracts is critical to the growth and success of all firms, and particularly those of disadvantaged social or economic circumstances, such as M/WBEs.

Included below is a sampling of comments from participants reflecting specific instances of these barriers:

- An African American specialty contractor stated that recommendations for compliance enforcement by the Procurement Enhancement Program (PEP) are often disregarded.
- An African American Professional Services firm stated that since receiving their PEP certification, the firm receives dozens of opportunities for construction, which is not the industry they are seeking opportunities.
- A Nonminority Woman owner of an Architecture and Engineering firm indicated barriers with the RFP process. She stated that submitting proposals is an exercise in futility. She continued by saying that the City may not be aware of how much time and money it takes to put together a proposal.
- A Nonminority Male owner of a construction firm states that it is challenging to meet M/WBE goals because there are not enough qualified M/WBEs. He continued by saying that because there are so few qualified M/WBEs, they are over capacity with the number of projects they are working on.
- An African American specialty contractor stated that contracts are already awarded by the time you hear about the opportunity.
- An African American owner of a supply firm wants to see the HRC and purchasing agree on who is included in the PEP program.
- An African American professional services firm owner stated that RFPs in their line of work is often written for a specific company to win.

### 7.4.2 FINANCIAL BARRIERS

Two general domains of concern arise frequently among vendors relating to financial obstacles associated with working with the City: limited access to capital and problems with cash flow. Access to capital impacts M/WBE and small firms’ ability to successful complete projects, apply for and receive bonds, hire employees, and operate their businesses. Similarly, cash flow becomes a barrier for M/WBE firms,
particularly smaller M/WBE firms, because it limits the amount of work they can bid or decreases their ability to hire employees or retain current employees.

Included below is a sampling of comments on this barrier.

- A Nonminority Woman owned professional services firm stated that bid bonds are very expensive and smaller firms cannot compete against large firms with more capital.
- An African American service provided indicated that they have had success winning contracts, however, they will cease doing business with the City because there is not enough money in the contract for the amount of work and materials needed.
- A Hispanic American service provider addressed the hardships created when payment is delayed by the City for small businesses.
- A Nonminority Woman owned professional services firm stated that the City is very slow to pay invoices.
- A Native American construction company owner stated that acquiring capital is a major barrier to growing their firm.

7.4.3 PRIME CONTRACTING BEHAVIOR
Subcontracting is often the gateway to M/WBE firms growing their businesses. Primes that unfairly treat, assess, and deal with M/WBE firms impacts the City’s program as well as the economic vitality of M/WBEs as they try to grow their businesses. Specific issues and challenges noted in this area include:

A. Primes included PEP firms in bids to meet the participation goal then replacing PEP firms with non-PEP.
B. Primes do not provide enough time to prepare bids or quotes.

Included below is a sampling of comments on this barrier.

- An African American business consultant stated that subcontractors are at the mercy of primes when it comes to getting paid.
- An African American owner of a general construction firm elaborated on an experience of a prime listing his firm to win a contract. The City held up the contract then when the work started, the prime awarded to another subcontractor.

7.4.4 SCALE OF OPPORTUNITY AND COMPETITION
Anecdotal comments indicate that competing with large firms or the size of City contracts is a barrier to winning contracts. M/WBE firms feel that their companies cannot grow if they must have the same level of resources as larger competitors.

Below are a few comments from M/WBE firms regarding this barrier.
A Nonminority Woman owner of a specialty construction firm stated that competing against large firms on smaller projects is a barrier because she does not have the same resources.

A Nonminority Woman owner of an engineering firm stated that the specifications are too limited to work just with the City. Related experiences and qualification from other agencies should be considered.

### 7.4.5 DISCRIMINATION AND DISPARATE TREATMENT

Included below (Table 7-1) is a summary of survey of vendors responses by firms as to whether they encountered disparate treatment or discrimination working with the City, or with the City’s primes. Proportions of M/WBEs indicating such experiences were as follows:

- M/WBE firms working as primes claimed to have experienced discrimination or disparate treatment working with the City – 0.38 percent.
- M/WBE firms working as subcontractors indicated discrimination or disparate treatment working with the City’s primes – 0.68 percent.

#### TABLE 7-1.
**DISCRIMINATION EXPERIENCES IDENTIFIED BY SURVEY OF VENDORS RESPONDENTS**

<table>
<thead>
<tr>
<th></th>
<th>By City</th>
<th>By Primes</th>
</tr>
</thead>
<tbody>
<tr>
<td>M/WBE (Prime)</td>
<td>0.38%</td>
<td></td>
</tr>
<tr>
<td>Non-M/WBE (Prime)</td>
<td>0.68%</td>
<td></td>
</tr>
<tr>
<td>M/WBE (Subcontractor)</td>
<td></td>
<td>0.75%</td>
</tr>
<tr>
<td>Non-M/WBE (Subcontractor)</td>
<td></td>
<td>4.11%</td>
</tr>
</tbody>
</table>

In Table 7-2, M/WBE survey respondents further elaborated on how they experienced various forms of disparate treatment by primes as subcontractors. The categories included in the table below were provided as options for describing types of disparate or discriminatory treatment by primes towards subcontractors. Unequal or unfair treatment, bid shopping, and double standards in performance were the most frequently cited experiences of M/WBE subcontractor respondents.

#### TABLE 7-2.
**DISPARATE TREATMENT IDENTIFIED BY SUBCONTRACTORS**

<table>
<thead>
<tr>
<th></th>
<th>African American</th>
<th>Asian American</th>
<th>Hispanic American</th>
<th>Native American</th>
<th>Nonminority Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harassment</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>66.67%</td>
</tr>
<tr>
<td>Unequal or unfair treatment</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>16.67%</td>
<td>33.33%</td>
</tr>
<tr>
<td>Bid shopping or bid manipulation</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>5.56%</td>
<td>33.33%</td>
</tr>
<tr>
<td>Double standards in performance</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>12.50%</td>
<td>37.50%</td>
</tr>
<tr>
<td>Denial of opportunity to bid</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>11.11%</td>
<td>33.33%</td>
</tr>
<tr>
<td>Unfair denial of contract award</td>
<td>11.11%</td>
<td>11.11%</td>
<td>0.00%</td>
<td>11.11%</td>
<td>44.44%</td>
</tr>
<tr>
<td>Unfair termination</td>
<td>0.00%</td>
<td>33.33%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>33.33%</td>
</tr>
<tr>
<td>Unequal price quotes from suppliers</td>
<td>0.00%</td>
<td>9.09%</td>
<td>0.00%</td>
<td>9.09%</td>
<td>18.18%</td>
</tr>
</tbody>
</table>
7.5 SUGGESTED REMEDIES FROM ANECDOTAL PARTICIPANTS

While collecting anecdotal data, participants provided their ideas and recommendations for improving the procurement process and M/WBE program to increase M/WBE participation. A few recurring ideas and/or suggested remedies provided by participants are:

- Hire additional HRC staff to manage compliance and aid M/WBE firms with business development.
- Require primes to report what is paid to M/WBE firms.
- Improve program compliance to ensure M/WBE firms are working on projects.
- Automate invoicing and payments to expedite the release of payments to firms.

7.6 STAKEHOLDER INTERVIEWS

MGT also conducted interviews with representatives from five area trade associations and business associations regarding the impact of the City’s M/WBE program.

Generally, these stakeholders agree support the objectives of the M/WBE program. The stakeholders interviewed provide capacity building, advocacy, and technical and/or business development to their members, many of which are M/WBE firms. The challenges many of the stakeholders identified included (1) lack of overall program compliance to ensure M/WBE firms are treated fairly; (2) the current HRC is short staffed thereby not able to provide full guidance and oversight; (3) the diversity program and procurement procedures does not always work together in providing growth for M/WBEs; and (4) reassess the M/WBE goals to align with availability.

7.7 CONCLUSIONS

In the preceding sections, descriptions of barriers and obstacles faced by M/WBEs working with the City, and the City’s primes were documented to provide further context and insights into the dynamics that have likely contributed to the disparities observed in Chapter 5. Obstacles and barriers cited in these anecdotal data collection activities included challenges in:

- Primes dropping M/WBE firms after award of a contract.
- Navigating the procurement processes of the City;
- Competing against larger firms on smaller projects;
- Issues facing M/WBE subcontractors attempting to work with the City’s prime contractors.

These concerns appear to create significant barriers to participation within the City’s market area.
CHAPTER 8. FINDINGS AND RECOMMENDATIONS

2019 Third Generation Disparity Study

City of Dayton
CHAPTER 8: FINDINGS AND RECOMMENDATIONS

8.1 INTRODUCTION

The city of Dayton engaged MGT Consulting Group (MGT) to conduct its Third Generation Disparity Study to determine if there is a disparity between the number of viable minority and woman-owned businesses that are ready, willing, and able to perform Architecture and Engineering, Construction, Professional Services, Other Services, and Goods and Supplies contracts, and the numbers of these same business types who are actually participating in these same types of contracts with city of Dayton (City).

This study consisted of fact-finding to analyze City procurement trends and practices between January 1, 2013 and December 31, 2017. Within the context of studying the City’s procurement practices, the study was conducted in a manner consistent with disparity study best practices, controlling local legal precedents, and constitutional law in order to properly advise the City about the legal basis for potential remedies, if necessary. MGT’s methodology included a review of disparity studies legal framework, a policy and procedures review, analyses of utilization, availability, and statistical disparity, anecdotal research, private sector analyses, and findings, commendations, and recommendations.

The results of this study and conclusions drawn are presented in detail in Chapters 3 through 7 of this report. This chapter will summarize the evidence on the central research question: is there factual predicate evidence for the continuation of a race- and gender-conscious M/WBE program for the City? MGT found sufficient evidence of disparity and recommends the continuation of a narrowly tailored race- and gender-based procurement program to address identified disparities.

8.2 FINDINGS

8.2.1 FINDING A: RELEVANT GEOGRAPHIC AND PRODUCT MARKET AREAS (CHAPTER 4, APPENDIX B)

Prime expenditure data were utilized to determine the relevant geographic market area for the study. Based on the results of the market area analysis conducted for each business category, the recommended relevant market area are the seven counties of Champaign, Clark, Darke, Greene, Miami, Montgomery, and Shelby, within the Dayton-Springfield-Sydney, OH CSA. This recommendation expands the market area from the City’s previous disparity study and current Procurement Enhancement Plan (PEP) Program boundaries. In total, the City spent $568,284,703 between January 1, 2013 through December 31, 2017. The spending in the relevant geographic market area is represented in Table 8-1.

---

221 Chapter 4, Market Area and Utilization Analyses
### TABLE 8-1.
MARKET AREA ANALYSIS, DISTRIBUTION OF DOLLARS BY BUSINESS CATEGORY, INSIDE & OUTSIDE THE DAYTON-SPRINGFIELD-SYDNEY, OH CSA
CITY OF DAYTON MARKET AREA

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>Amount</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONSTRUCTION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inside Dayton CSA Market Area</td>
<td>$99,844,508.47</td>
<td>62.86%</td>
</tr>
<tr>
<td>Outside Dayton CSA Market Area</td>
<td>$58,996,183.45</td>
<td>37.14%</td>
</tr>
<tr>
<td><strong>CONSTRUCTION, TOTAL</strong></td>
<td>$158,840,691.92</td>
<td>100.00%</td>
</tr>
<tr>
<td><strong>ARCHITECTURE &amp; ENGINEERING</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inside Dayton CSA Market Area</td>
<td>$45,809,303.84</td>
<td>72.38%</td>
</tr>
<tr>
<td>Outside Dayton CSA Market Area</td>
<td>$17,484,351.05</td>
<td>27.62%</td>
</tr>
<tr>
<td><strong>A&amp;E, TOTAL</strong></td>
<td>$63,293,654.89</td>
<td>100.00%</td>
</tr>
<tr>
<td><strong>PROFESSIONAL SERVICES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inside Dayton CSA Market Area</td>
<td>$56,379,769.24</td>
<td>69.33%</td>
</tr>
<tr>
<td>Outside Dayton CSA Market Area</td>
<td>$24,935,825.72</td>
<td>30.67%</td>
</tr>
<tr>
<td><strong>PROFESSIONAL SERVICES, TOTAL</strong></td>
<td>$81,315,594.96</td>
<td>100.00%</td>
</tr>
<tr>
<td><strong>OTHER SERVICES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inside Dayton CSA Market Area</td>
<td>$66,882,416.61</td>
<td>55.30%</td>
</tr>
<tr>
<td>Outside Dayton CSA Market Area</td>
<td>$54,059,226.57</td>
<td>44.70%</td>
</tr>
<tr>
<td><strong>OTHER SERVICES, TOTAL</strong></td>
<td>$120,941,643.18</td>
<td>100.00%</td>
</tr>
<tr>
<td><strong>GOODS &amp; SUPPLIES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inside Dayton CSA Market Area</td>
<td>$71,008,018.25</td>
<td>49.35%</td>
</tr>
<tr>
<td>Outside Dayton CSA Market Area</td>
<td>$72,885,099.32</td>
<td>50.65%</td>
</tr>
<tr>
<td><strong>GOODS &amp; SUPPLIES, TOTAL</strong></td>
<td>$143,893,117.57</td>
<td>100.00%</td>
</tr>
<tr>
<td><strong>ALL BUSINESS CATEGORIES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inside Dayton CSA Market Area</td>
<td>$339,924,016.41</td>
<td>59.82%</td>
</tr>
<tr>
<td>Outside Dayton CSA Market Area</td>
<td>$228,360,686.11</td>
<td>40.18%</td>
</tr>
<tr>
<td><strong>ALL BUSINESS CATEGORIES, TOTAL</strong></td>
<td>$568,284,702.52</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Source: MGT developed a Master Prime Database based on city of Dayton payments between January 1, 2013, and December 31, 2017.

### 8.2.2 FINDING B: M/WBE PRIME UTILIZATION (CHAPTER 4, APPENDIX C)

In Table 8-2 the prime utilization analysis shows that non-M/WBE firms are utilized at substantially higher rates than their M/WBE counterparts. The City’s spending with non-M/WBE firms totaled 91.90 percent, while only 8.10 percent went to M/WBE firms. The highest utilization rates among M/WBE classifications included Nonminority Women firms accounting for 7.08 percent of dollars spent during the study period at the prime level. Further analyzing the individual procurement categories, Nonminority Women had the greatest utilization in Construction at 13.35 percent or $13.33 million followed by African American firms at 1.93 percent or $1.93 million.223

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223 2019 Third Generation Disparity Study Chapter 4, Market Area and Utilization Analyses
### TABLE 8-2.
**Utilization of Firms Analysis, Prime Level**

**Distribution of Dollars by Business Ownership Classification**

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>TOTAL DOLLARS</th>
<th>TOTAL PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Americans</td>
<td>$3,350,980.46</td>
<td>0.99%</td>
</tr>
<tr>
<td>Asian Americans</td>
<td>$56,973.70</td>
<td>0.02%</td>
</tr>
<tr>
<td>Hispanic Americans</td>
<td>$49,109.62</td>
<td>0.01%</td>
</tr>
<tr>
<td>Native Americans</td>
<td>$0.00</td>
<td>0.00%</td>
</tr>
<tr>
<td><strong>TOTAL MINORITY FIRMS</strong></td>
<td><strong>$3,457,063.78</strong></td>
<td><strong>1.02%</strong></td>
</tr>
<tr>
<td>Nonminority Women</td>
<td>$24,071,730.70</td>
<td>7.08%</td>
</tr>
<tr>
<td><strong>TOTAL M/WBE FIRMS</strong></td>
<td><strong>$27,528,794.48</strong></td>
<td><strong>8.10%</strong></td>
</tr>
<tr>
<td>TOTAL NON-M/WBE FIRMS</td>
<td>$312,395,221.93</td>
<td>91.90%</td>
</tr>
<tr>
<td><strong>TOTAL FIRMS</strong></td>
<td><strong>$339,924,016.41</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Source: MGT developed a Master Utilization Database based on dollars expended by the City between January 1, 2013 and December 31, 2017.*

#### 8.2.3 FINDING C: CONSTRUCTION CONTRACTS WITH AND WITHOUT GOALS (CHAPTER 4)

The subcontract data available for the study period did not permit a full subcontract analysis, however, the available data allowed for an analysis of MWBE utilization. When analyzing construction contracts with PEP goals versus those without goals, M/WBE subcontractors fared better when there were contracts associated directly with goals. M/WBE subcontractors were utilized at higher rates for construction contracts with goals, 30.85 percent, versus those without goals, 6.75 percent. Individually, Nonminority Women were utilized for construction contracts with goals at 29.15 percent and minority firms at 1.71 percent.\(^{224}\)

#### 8.2.4 FINDING D: AVAILABILITY ESTIMATES (CHAPTER 5)

A reliable estimation of the number of firms willing and able to provide each of the respective services under the scope of examination is an incumbent element in the determination of disparity.

MGT uses the availability estimates for primes to calculate aspirational goals proposed later in this chapter. Therefore, the availability estimates are illustrated in Table 8-3.

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\(^{224}\) Chapter 4, Section 4.5
### TABLE 8-3.
**ESTIMATION OF AVAILABLE FIRMS, ALL PROCUREMENT CATEGORIES**

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>ALL</th>
<th>CONSTRUCTION</th>
<th>A&amp;E</th>
<th>PROFESSIONAL SERVICES</th>
<th>OTHER SERVICES</th>
<th>MATERIALS &amp; SUPPLIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRICAN AMERICAN FIRMS</td>
<td>2.87%</td>
<td>4.82%</td>
<td>3.04%</td>
<td>4.70%</td>
<td>0.93%</td>
<td>0.57%</td>
</tr>
<tr>
<td>ASIAN AMERICAN FIRMS</td>
<td>2.54%</td>
<td>2.11%</td>
<td>4.21%</td>
<td>5.92%</td>
<td>0.06%</td>
<td>1.78%</td>
</tr>
<tr>
<td>HISPANIC AMERICAN FIRMS</td>
<td>1.72%</td>
<td>3.02%</td>
<td>2.80%</td>
<td>1.35%</td>
<td>0.03%</td>
<td>1.17%</td>
</tr>
<tr>
<td>NATIVE AMERICAN FIRMS</td>
<td>0.18%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.90%</td>
<td>0.00%</td>
</tr>
<tr>
<td>TOTAL MINORITY FIRMS</td>
<td>7.31%</td>
<td>9.95%</td>
<td>10.05%</td>
<td>11.97%</td>
<td>1.93%</td>
<td>3.52%</td>
</tr>
<tr>
<td>NONMINORITY WOMEN FIRMS</td>
<td>14.62%</td>
<td>7.29%</td>
<td>12.14%</td>
<td>20.04%</td>
<td>18.80%</td>
<td>17.97%</td>
</tr>
<tr>
<td>TOTAL M/WBE FIRMS</td>
<td>21.93%</td>
<td>17.23%</td>
<td>22.19%</td>
<td>32.01%</td>
<td>20.73%</td>
<td>21.49%</td>
</tr>
<tr>
<td>NON-M/WBE FIRMS</td>
<td>78.07%</td>
<td>82.77%</td>
<td>77.81%</td>
<td>67.99%</td>
<td>79.27%</td>
<td>78.51%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

#### 8.2.5 FINDING E: DISPARITY (CHAPTER 5)

Included in this section are inputs and calculations of disparity ratios and significance testing for primes of each procurement category and ownership classifications by race, ethnicity, and gender. Detailed disparity analysis for each procurement category are located in Appendix H, Detailed Disparity Analysis. Analysis of disparities across all procurement categories in Table 8-4 reveals:

- African American-owned firms were substantially underutilized, with a substantial and statistically significant disparity ratio of 34.39;
- Asian American-owned firms were substantially underutilized, with a substantial and statistically significant disparity ratio of 0.66;
- Hispanic American-owned firms were substantially underutilized, with a substantial and statistically significant disparity ratio of 0.84;
- Native American-owned firms were substantially underutilized, with a disparity ratio of 0.00, but lacks statistical significance due to relatively small size/share of population;
- Nonminority Women-owned firms were underutilized, with a substantial and statistically significant disparity ratio of 48.42; and
- M/WBEs were underutilized, with a substantial and statistically significant disparity ratio of 36.92.
### TABLE 8-4.
DISPARITY RATIO AND SIGNIFICANCE TESTING, ALL PROCUREMENT CATEGORIES

<table>
<thead>
<tr>
<th>BUSINESS OWNERSHIP CLASSIFICATION</th>
<th>UTILIZATION</th>
<th>AVAILABILITY</th>
<th>DISPARITY INDEX</th>
<th>DISPARITY IMPACT</th>
<th>STATISTICAL SIGNIFICANCE</th>
<th>DISPARITY CONCLUSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRICAN AMERICAN FIRMS</td>
<td>0.99%</td>
<td>2.87%</td>
<td>34.39</td>
<td>Underutilization</td>
<td>Yes</td>
<td>Disparity</td>
</tr>
<tr>
<td>ASIAN AMERICAN FIRMS</td>
<td>0.02%</td>
<td>2.54%</td>
<td>0.66</td>
<td>Underutilization</td>
<td>Yes</td>
<td>Disparity</td>
</tr>
<tr>
<td>HISPANIC AMERICAN FIRMS</td>
<td>0.01%</td>
<td>1.72%</td>
<td>0.84</td>
<td>Underutilization</td>
<td>Yes</td>
<td>Disparity</td>
</tr>
<tr>
<td>NATIVE AMERICAN FIRMS</td>
<td>0.00%</td>
<td>0.18%</td>
<td>0.00</td>
<td>Underutilization</td>
<td>No</td>
<td>Disparity</td>
</tr>
<tr>
<td>TOTAL MINORITY FIRMS</td>
<td>1.02%</td>
<td>7.31%</td>
<td>13.92</td>
<td>Underutilization</td>
<td>Yes</td>
<td>Disparity</td>
</tr>
<tr>
<td>NONMINORITY WOMEN FIRMS</td>
<td>7.08%</td>
<td>14.62%</td>
<td>48.42</td>
<td>Underutilization</td>
<td>Yes</td>
<td>Disparity</td>
</tr>
<tr>
<td>TOTAL M/WBE FIRMS</td>
<td>8.10%</td>
<td>21.93%</td>
<td>36.92</td>
<td>Underutilization</td>
<td>Yes</td>
<td>Disparity</td>
</tr>
<tr>
<td>NON-M/WBE FIRMS</td>
<td>91.90%</td>
<td>78.07%</td>
<td>117.72</td>
<td>Overutilization</td>
<td>Yes</td>
<td>No Disparity</td>
</tr>
</tbody>
</table>

Source: MGT developed the Utilization Analysis and Availability Analysis for the study.

Disparity index is the ratio of the percentage of dollars to the percentage of available firms multiplied by 100.00.
The index is based on actual percentage value and not the rounded utilization and availability estimates percentage values presented.
The disparity indices have been rounded.
¥¥ denotes the ratio of utilization to availability is statistically significant at a 0.05 level.
The totals may not equal the sum of components due to rounding.

### 8.2.6 FINDING F: DISPARITIES IN COMMERCIAL AND PUBLIC CONSTRUCTION (CHAPTER 6)

According to the findings from commercial construction projects, substantial M/WBE underutilization was evident in the private sector. Comparing these to the City’s public utilization, shows that M/WBEs are significantly underutilized in both private and public projects. As such a M/WBE program would be beneficial to remedy this underutilization and prevent the City from becoming a passive participant to discrimination.

### 8.2.7 FINDING G: DISPARITIES IN SELF-EMPLOYMENT AND REVENUE EARNINGS (CHAPTER 6)

Findings from the Public Use Microdata Sample (PUMS) from 2011-2016 data indicate minorities were significantly less likely than nonminority males to be self-employed and, if they were self-employed, they earned significantly less in 2016 than did self-employed nonminority males. When self-employment rates were stratified by race and by business type, trends varied within individual race-by-type cells, but disparities persisted, in general, for all minorities and nonminority females. When group self-employment rates were submitted to MGT’s disparity-due-to-minority-status analysis, findings supported the conclusion that disparities for these groups (of adequate sample size to permit interpretation) were likely the result of differences in the marketplace due to race, gender, and ethnicity.

### 8.2.8 FINDING H: ANECDOTAL COMMENTS (CHAPTER 7)

Among the M/WBEs who responded to questions about barriers to doing business, the biggest concern for both primes and subcontractors were competing with large firms (17.7%). The second major concern was contracts were too large (8.6%).
8.3 COMMENDATIONS AND RECOMMENDATIONS

The following commendations and recommendations are based on multiple findings and do not necessarily tie to one finding.

8.3.1 RECOMMENDATION A: ASPIRATIONAL M/WBE GOALS

 Proposed goals are listed in Table 8-5. The proposed goals are based on relative M/WBE availability, which is 80 percent of availability. These aspirational goals should not be applied rigidly to every individual City procurement. Instead M/WBE goals should vary from project to project. Aspirational goals should be based on relative M/WBE availability.

<table>
<thead>
<tr>
<th>Table 8-4. PROPOSED M/WBE GOALS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business Category</strong></td>
</tr>
<tr>
<td>Construction</td>
</tr>
<tr>
<td>A &amp; E</td>
</tr>
<tr>
<td>Professional Services</td>
</tr>
<tr>
<td>Other Services</td>
</tr>
<tr>
<td>Goods and Supplies</td>
</tr>
</tbody>
</table>

8.3.2 RECOMMENDATION B: NARROWLY TAILORED M/WBE PROGRAM

Developments in court cases involving federal disadvantaged business enterprise (DBE) programs provide important insight into the design of local M/WBE programs. Federal courts found have consistently found DBE regulations in 49 CFR 26 to be narrowly tailored.225 The federal DBE program has the features in Table 8-6 that contribute to this characterization as a narrowly tailored remedial procurement preference program. The City should adopt these features in any new M/WBE program.

<table>
<thead>
<tr>
<th>Table 8-5. NARROWLY TAILORED M/WBE PROGRAM FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NARROWLY TAILORED GOAL-SETTING FEATURES</strong></td>
</tr>
<tr>
<td>1. The City should not use M/WBE quotas.</td>
</tr>
<tr>
<td>2. The City should use race- or gender-conscious set-asides only in extreme cases.</td>
</tr>
<tr>
<td>3. The City should meet the maximum amount of M/WBE goals through race-neutral means.</td>
</tr>
</tbody>
</table>

Source: Suggested features in a proposed narrowly tailored M/WBE program based on USDOT 49 CFR 26.

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225 Adarand v. Slater, 228 F.3d 1147 (10th Cir. 2000), Gross Seed. v. State of Nebraska, 345 F.3d 968 (8th Cir. 2003); cert denied, 158 L.Ed. 2d 729 (2004).
8.3.3 RECOMMENDATION C: SUBCONTRACTOR PROJECT GOALS
The current PEP policy establishes goals for most construction projects. Findings of contracts with and without goals suggests that not all contracts are reviewed by HRC for goal evaluation. To address identified disparities the HRC should work with all departments to evaluate all formal contracts to determine if PEP goals can be set.

8.3.4 RECOMMENDATIONS D: DATA MANAGEMENT
The City should implement data systems and processes to monitor and track progress on key performance indicators (KPIs) and establish solid processes to collect and analyze M/WBE and SBE utilization data to monitor goal attainment. Data required for a disparity study is different than data required for MWBE reporting. Therefore, we strongly encourage the City to begin to collect information on the non-MWBE/non-SBE subcontractors. This information can be entered into the software the City currently uses. This type of change doesn’t usually require new or different software; it does require new and different behavior. If the City does begin asking the prime firms to supply scope and payment information on all subs, then City staff will need to begin ensuring that they enter the information into the system used. Data collection should include:

- Require primes (both M/WBE and non-M/WBE) to report subcontractor and supplier utilization for MWBE and non-MWBE subs.
- Validate subcontractor utilization using compliance reporting.
- Consistently collect bid and proposal responses and identify those that are M/WBE firms.
- Document M/WBE and SBE bidders on City contracts.

8.3.5 RECOMMENDATION E: OUTREACH
The City must continuously encourage participation of minority- and women-owned businesses in all procurement and contracting. Encouraging participation in this context is based upon establishing ongoing one-on-one relationships with vendors and serving as coach/mentor to help identify procurement and contracting opportunities, help navigate the purchasing process, and build relationships with city staff. Interacting and communicating with departments and internal end users and providing assistance, advice, and support related to ensuring equal access to procurement opportunities is key to increasing utilization.

8.3.6 RECOMMENDATION F: USE OF AREA RESOURCES
The City has in its market area multiple third-party agencies that provide professional development for small, minority, and women firms. The City should coordinate memorandums of understanding with available resources within the market area to assist in capacity building and participating in bid opportunities with the City.
8.3.7 RECOMMENDATION G: STAFFING
The operation of a M/WBE program will require staff dedicated to conduct outreach, bid evaluation, monitoring, goal setting, reporting, and compliance and oversight of the AAA Program. To enhance the effectiveness of the PEP, the City needs to hire additional staff. The recommendation of a desk audit to determine purpose and function to meet program’s objectives. If necessary, the City should consider hiring an outside consultant to assist with PEP functions until new staff are hired.

8.3.8 RECOMMENDATION H: M/WBE GRADUATION
The City should consider a phased graduation process for firms that exceed the certification personal net worth requirements. A phased graduation will allow potential graduates to continue to build capacity without the effects of immediate removal from the program. The federal DBE program requires a component that re-evaluates certified firms regularly and exits from the program the firms that are no longer eligible. Most local government programs follow the DOT DBE program guidelines, in part because that program has been repeatedly found to be legally defensible. You may access information related to “graduation” of firms for the DOT DBE program at https://www.transportation.gov/osdbu/disadvantaged-business-enterprise/appendix-c-to-part-26-dbe-business-development-program-guidelines.

8.3.9 RECOMMENDATION: PERSONNEL PERFORMANCE EVALUATION
It is recommended that the City require a AAA statement or Equal Employment Opportunity report and a copy of employee payroll records at the time of bid or proposal. If the statement is not included, the bid or proposal should be rejected. It is also recommended that the AAA certification should be renewed every three years for firms that have done business with the City and require the firm to submit their workforce composition numbers since their last certification. To measure success of the program, the City should establish measurements of workforce data to state and nearby counties.

8.3.10 RECOMMENDATION: AFFIRMATIVE ACTION ASSURANCE
It is recommended that the City require a AAA statement or Equal Employment Opportunity report and a copy of employee payroll records at the time of bid or proposal. If the statement is not included, the bid or proposal should be rejected. It is also recommended that the AAA certification should be renewed every three years for firms that have done business with the City and require the firm to submit their workforce composition numbers since their last certification. To measure success of the program, the City should establish measurements of workforce data to state and nearby counties. In order to increase program awareness and understanding, it is recommended the City should offer or partner with workforce development programs and state the purpose of the program on the program website. Also recommend that end user departments monitor the submission of AAA during a renewal period before the vendor is paid.
8.4 CONCLUSIONS

This study provides factual predicate evidence for the continuation of a narrowly tailored M/WBE Program. Disparity was identified in all procurement categories and business ownership classifications when aggregated to represent the program.