

City of Knoxville

DISPARITY STUDY

November 2023

EXECUTIVE SUMMARY



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Glossary of Terms

Actual availability—firms that have affirmatively shown interest in doing business with the City of Knoxville in one or more of the following ways: Bidding for a City contract, being awarded a City contract, or being included on the City’s vendor or plan holder’s list. The difference between “actual availability” and “potential availability” may help identify and narrow down the area of availability that may be affected by discrimination, lack of outreach, lack of interest, lack of specific expertise required by the public entity, and lack of capacity.

Active discrimination—any action by a government entity which has directly discriminated against minority- and women-owned businesses through its contracting and procurement activities, or any other of its activities (e.g. employment).

Anecdotal Interview—interview conducted with a business owner within a particular industry, or who has contracted with a public entity, to ascertain his/her personal experiences in doing business within that industry or with that public entity.

Annual Aspirational Goal or Annual Goal—non-mandatory annual aspirational percentage goal for overall DBE prime and subcontract participation established by a public entity each year for the public entity’s identified industry categories.

Annual Survey of Entrepreneurs—a Census database that provides annual data on select economic and demographic characteristics of employer businesses and their owners by gender, ethnicity, race, and veteran status.

Architecture & Engineering —professional services of an architectural or engineering nature that are associated with research, planning, development, design, construction, alteration, or repair of real property. For the purposes of this Disparity Study, Construction Management services are included in Construction and Construction-Related Services.

Availability—the percentage of firms by race and gender in an industrial category and available to do business with a government entity.

Awardees—firms that receive a contract award from the City as reflected through contract awards, purchase orders, and payments data.

Bidders—firms that submitted a bid or sub-bid on a City formal purchasing opportunity or submitted a quote for City informal procurement opportunities.

Capacity—a measure of additional work a firm can take on at a given point in time.

Census—a complete enumeration, usually of a population, but also of businesses and commercial establishments, farms, governments, and so forth.

Certification—process of qualifying a firm as being at least 51 percent owned, managed, and controlled by minorities and/or females.

Compelling Governmental Interest—compelling reasons by a public entity to remedy past discriminatory treatment of racial or ethnic groups.

Construction and Construction-Related Services— Capital construction projects and contracts that cover general construction trade services.

Contract Award Data—data gleaned from the City’s bid history data and contract logs that were provided to M³ Consulting in a shared folder. Access to the shared folder was provided by the City’s point of contact. The contract logs represent the universe of formal competitive contracts in which the City is engaged.

Croson Requirements—guidelines which govern any state or local political body’s attempt to enact a minority/female business enterprise program that uses set-asides, preferences, goals, or other race-conscious measures on condition that a compelling government interest exists and that the program elements are narrowly tailored.

Data Axle—offers comprehensive and accurate business and consumer databases with almost 400 distinct attributes across businesses and consumers in the United States and Canada.

Glossary of Terms (cont'd)

DBE— a minority-owned business, a woman-owned business, a service-disabled veteran-owned business or a small business, as defined in the City of Knoxville's Procurement Manual.

Disadvantaged Business—new, small, local, or any other business that is at least 51% owned, controlled, and whose daily operations are managed by one or more socially disadvantaged individuals. Applies to sole proprietorships, partnerships, corporations, or other business entities.

Disparate Impact—a policy or practice that, although neutral on its face, falls more harshly on a protected group. This impact may be viewed as discriminatory behavior in certain instances. The statistical analysis seeks to determine if there is any disparate impact of an agency's policies or practices, intended or unintended, on protected classes.

Disparity Ratio—ratio of the percentage of receipts received by M/WBEs from a particular public entity in a specific category of work (e.g. construction) to the percentage of firms that are M/WBEs available to do business with that public entity . The public entity's M/WBE utilization is divided by M/WBE availability.

Dodge Construction Data—a construction market data resource that tracks construction activity by project and location. The data set also provides project-specific information which includes owner of the project, value of project, type of project, general contractor, etc.

Factual Predicate—an analysis to determine whether there are any identified instances of past discrimination that must be particularized in a manner that provides guidance for the legislative body to determine the precise scope of the injury it seeks to remedy. It is utilized to determine whether a compelling governmental interest exists to support the utilization of race and gender-conscious remedies. The disparity study is utilized to develop the factual predicate.

Formal Purchases—competitive purchasing is required for contracts over \$60,000. Formal purchasing at the City is done using Invitations for Bid and Requests for Proposals.

Goods and Supplies—those traditional purchases that are “non-service” based (computers, food, parts, equipment, furniture, fixtures, etc.)

Informal Procurement—purchases not requiring advertising and valued at less than \$60,000.

Intermediate Scrutiny—is applied to gender and age distinctions and requires the public entity to prove there is a fair and substantial relationship between the classification and the objective of the legislation.

Knoxville Small Business and Diversity Outreach Office (SBDO) — The office within the COK Procurement Division that assists Small, Minority-owned, Woman-owned, and Service-Disabled Veteran-owned businesses in navigating COK's Procurement Processes and how to do business with the City of Knoxville

Local Business—any entity with its headquarters' office or principal place of business within the city boundaries and in the tax year preceding application for certification has (1) earned at least 25% of its gross receipts from work performed on construction projects within the city boundaries; or (2) employed a workforce of which at least 25% were economically disadvantaged individuals or were residents of a targeted business development area within the city boundaries.

Local Business Preference—a preference given to the lowest responsive and responsible vendor that has a principal place of business in the City.

Marketplace Availability—all firms available in the City's marketplace, as measured by Data Axle and Dodge Construction data.

Master S/M/W/DBE List—list of certified SBEs, MBEs, WBEs and DBEs from the City of Knoxville, and State of Tennessee.

Glossary of Terms (cont'd)

Matchmaking—efforts to bring together potential DBEs, Non-DBEs and City personnel on specific opportunities that encourages an environment of relationship building.

Metropolitan Statistical Area (MSA)—an area, defined by the U.S. Census Bureau which is an integrated economic and social unit with a population nucleus of at least 50,000 inhabitants. Each MSA consists of one or more counties meeting standards of metropolitan character.

Minority Business Enterprise (MBE)—firms that are at least 51% owned and controlled by minority individuals. Minority individuals are defined as African Americans, Asian Americans, Native Americans, and Hispanic Americans.

Multivariate Regression—analyzes whether multiple variables, including race and gender, impact an outcome.

Narrowly Tailored—a law must be written to specifically fulfill only its intended goal. Race and gender-conscious remedial action be “narrowly tailored” to identify past or present discrimination. At least three characteristics were identified by the court as indicative of a narrowly tailored remedy:

The program should be instituted either after, or in conjunction with, race-neutral means of increasing minority business participation. A governmental entity does not have to enact race-neutral means if they are not feasible or conducive to remedying past discrimination

The plan should avoid the use of rigid numerical quotas

The program must be limited in its effective scope to the boundaries of the governmental entity

Non-DBEs—for computation of availability, utilization, and disparity tables. Represents all other firms, exclusive of DBEs.

Non-M/W/SBEs—for computation of availability, utilization, and disparity tables. Represents all other firms, exclusive of M/W/SBEs.

Other Minority-owned Business—firms certified as a Minority-owned business without specific race or ethnic designations.

Outreach—any effort to communicate with minority- or female-owned businesses regarding procurement or contracting opportunities.

Passive Discrimination—participating in the discriminatory or exclusive actions of other agents in the public and private sectors.

Passive Participant—refers to any government entity that has indirectly discriminated against minority or female businesspersons by doing business with an industry or business that directly engages in discriminatory practices.

Potential Availability—refers to firms present in the City’s market beyond those “actually available” to include those that have not bid on the City work or taken other affirmative steps toward doing business specifically with the City (as opposed to other public and private sector clients) during the study period. This availability includes firms identified under both public-sector availability and marketplace availability.

Practical Significance—the most-used practical significance measure in the EEO context is the 4/5th or 80% rule, which indicates how large or small a given disparity is. An index less than 100% indicates that a given group is being utilized less than would be expected based on its availability, and courts have adopted the Equal Employment Opportunity Commission’s “80%” rule, that is, that a ratio less than 80% presents a prima facie case of discrimination.

Procurement—the acquisition of any goods or services in the categories of A&E, construction, professional services, other services, and procurement.

Procurement Forecasting—an organization and its departments determine their procurement needs for a set period.

Glossary of Terms (cont'd)

Public Sector Availability—includes lists of available firms known to various public sector agencies, including, but not limited to, the City in the relevant market region. These firms are closer to RWASM, having expressed an interest in contracting opportunities with other public sector agencies with similar standards and limitations as the City.

PUMS (Public-Use Microdata Samples)—contains records for a sample of housing units with information on the characteristics of each unit and each person in the unit. Files are available from the American Community Survey and the Decennial Census.

Pure Prime Utilization—the value of prime contracts net of subcontract value.

Purchase Order—a procurement vehicle used by a government entity to acquire goods or services by opening an order for the goods and services for a specified amount.

Race- and Gender-Conscious—any business development plan or program that uses race and gender as criteria for participation.

Race- and Gender-Neutral—any business development plan or program in which race and gender is not among the criteria for participation.

Rational Basis Standard—tests economic programs that do not make distinctions based on race, ethnic origin, or gender. Under this standard, the moving party is required to show that the classification is not rationally related to a valid state purpose.

Ready, Willing and Able Availability Estimate (RWASM Estimate)—the number of DBEs ready and willing to perform a particular scope of work and with the ability to expand (or contract) to do the type of work required. Derived from the U.S. Supreme Court's statement that:

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 engaged by the locality or the locality's prime

contractors, an inference of discriminatory exclusion could arise.¹

The first component of the model, "ready", simply means a business exists in the market area. The second component, "willing", suggests a business understands the requirements of the work being requested and wants to perform the work. The third component, "able", defines the group of firms with the capacity to do the job.

Reed Construction Data—a construction market data resource that tracks construction activity by project and location. The data set also provides project-specific information which includes project owner, value, and type, as well as general contractor, etc.

Relevant Market—the geographic area reflecting a preponderance of commercial activity pertaining to an entity's contracting activity based on where bidders, vendors, or awardees are located. A typical range fitting this definition is approximately 70%.

Regression Analysis—a statistical method that analyzes how a single dependent variable may change or vary based on values of one or more independent variables. For example, the contract dollars awarded to DBEs vary based on characteristics such as race, gender, years of experience, and gross annual receipts.

Services—includes any provider of services, both professional and non-professional (attorney, consultant, training, landscaper, security, transportation, etc.).

Service-Disabled Veteran Enterprise Program—A race- and gender-neutral program designed to benefit service-disabled veteran businesses.

Set-Aside—government policy in which competition for certain contracts/bid opportunities is restricted to certain firms.

Small Business Enterprise—an entity that has had less than \$500,000 of gross revenues in each of its last two fiscal years.

¹City of Richmond v. J.A. Croson, 109 S.Ct. 706, at 729 (1989).

Glossary of Terms (cont'd)

Small Woman Minority Business Enterprise—any contractor, subcontractor, manufacturer or service company (a) that has been doing business under the same ownership or management and has maintained its principal place of business in the City, for a period of at least one (1) year immediately prior to the date of application for certification under this section, (b) that had annual gross revenues not exceeding the thresholds identified in this policy for each industry, and (c) at 51% of the ownership of which is held by a person or persons who exercise operational authority over the daily affairs of the business and have the power to direct the management and policies and receive the beneficial interests of the company.

State Preference—State law requires the City to award a preference to the lowest responsive and responsible vendor that has a principal place of business in the State of Tennessee.

Statistical Significance—how large or small the disparity ratio is in comparison with the observed percentages based on the statistical confidence level. Also, the likelihood that a statistic will vary from a given value by more than a certain amount due to chance.

Strict Scrutiny Standard—is evoked if the classification is one that is suspected to be based on race, ethnic, or alien distinctions, or infringements upon fundamental rights. The strict scrutiny test is the most rigorous of the three, requiring the public entity to show compelling governmental interests for making such classifications.

Sunset Clause—a legal or regulatory provision that stipulates the periodic review of a government agency or program to determine the need to continue its existence. For race and gender-conscious programs, this can involve: a) a graduation program; b) a definite date to end the program; or c) an annual review of DBE program efficacy, goals, and utilization.

Systemic Barrier—entrenched discriminatory practices or policies that effectively prevent participation in economic opportunities.

Technical Assistance—the transfer of skills or information from one party or entity to another, through on-site consultation, conferences, brokering of services, training, or general dissemination of information.

T-Test—assesses whether the means of two groups are statistically different from each other.

Unknown DBE—Firms certified as a DBE business without specific race or ethnic designations.

Utilization—the percentage of receipts in an industrial category that is spent with a given class of firms (e.g., M/WBEs).

Vendor—any person or business entity who has come forth to a governmental entity and registered with the entity identifying the products and services they would like to supply/render.

Veteran Business Enterprise Program—A race- and gender-neutral program designed to benefit veteran-owned businesses.

Woman-owned Business—firms that are at least 51% owned and controlled by female individuals.

E.1 INTRODUCTION

E.1.1 Purpose of Disparity Study

On February 24, 2022, the City of Knoxville (COK) commissioned Miller³ Consulting, Inc. (M³ Consulting) to conduct a Disparity Study (the Study). In conducting the Study, M³ Consulting collected and developed data to determine disparities, if any, between the availability and utilization of small-, minority-, and women-owned businesses for all procurement opportunities offered by the COK. This Disparity Study contains the results of M³ Consulting’s research and provides conclusions based on the analyses. The purpose of the study was to determine if there is evidence showing that there is disparity among ready, willing and able Diversity Businesses Enterprises (DBEs) in Architecture and Engineering (A&E), Construction and Construction-Related Services, Professional Services, Non-Professional Services, and Goods & Supplies procurement and contracts issued by the City. The study period covers fiscal year (FY) 2017 to FY 2021.

E.1.2 Overview of the City of Knoxville’s Current Race and Gender-Conscious and Race and Gender-Neutral Programs

If COK chooses to continue to utilize race and gender-conscious techniques, it will need to meet the U.S. Supreme Court’s requirements in *City of Richmond v. Croson*. The U.S. Supreme Court established a two-pronged test: (1) that a governmental entity had to show a compelling governmental interest to utilize race-conscious remedies and (2) that any such remedies must be narrowly tailored. A factual predicate or disparity study is utilized to show if there is a compelling governmental interest. Narrow tailoring is the crucial element in crafting appropriate *Croson* remedies.

Courts, for failure of local jurisdictions to narrowly tailor their remedies, have struck down many DBE programs. Once a factual predicate has been established, post-*Croson* case law presents several broad guidelines for crafting recommendations for MBE programs by a public entity, based on the factual predicate findings:

- Race and gender-conscious MBE programs should be instituted only after, or in conjunction with, race and gender-neutral programs.

- MBE programs should not be designed as permanent fixtures without regard to eradicating bias. Consequently, each MBE program should have a sunset provision, as well as provisions for regular review. Additionally, there is the implication that reform of procurement systems should be undertaken.
- MBE programs should have graduation provisions for the MWBEs themselves.
- Rigid numerical quotas run a greater risk of being overturned by judicial review than flexible goals.
- Race and gender-conscious goals, if any, should be tied to MWBE availability and to addressing identified discrimination.
- MBE programs should limit their impact on the rights and operations of third parties.
- MBE programs should be limited in scope to only those group(s) that have suffered from discrimination within public entity’s legislative jurisdiction enacting the program.

Croson requirements were extended to federal programs in *Adarand v. Peña*.

E.1.3 *Croson* and Sixth Circuit Standards

In *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469, 109 S.Ct. 706 (1989), the U.S. Supreme Court established a two-pronged “strict scrutiny” test for any governmental entity seeking to redress discrimination through race-conscious means:

- The governmental entity must demonstrate that there is a compelling governmental interest supported by a strong basis in evidence that consideration and use of race- and gender-conscious programs or policies is necessary to remedy discrimination.
- Any such race- and gender-conscious program must be narrowly tailored to remedy identified discrimination.

The requirements of the strict scrutiny test can be met by establishing a factual predicate. Disparity study evidence is a key component of such a factual predicate. The COK can use the methodology, findings, conclusions and recommendations of this Study to determine whether it has a basis for using some form of a race- and gender-conscious program consistent with the U.S. Supreme Court requirements of *Richmond v. Croson*.

“Narrow tailoring” is a crucial element in crafting appropriate Croson remedies.¹ Courts have struck down many MWBE programs due to the failure of local jurisdictions to narrowly tailor their remedies. Once government policymakers have established and relied upon a factual predicate in devising MWBE programs, post-Croson case law provides more detailed guidance for crafting MWBE programs:

- Race- and gender-conscious MWBE programs should be instituted only after, or in conjunction with, race- and gender-neutral programs.
- MWBE programs should not be designed as permanent fixtures in a governmental purchasing system without regard to eradicating bias in standard purchasing operations, or in the private sector contracting arena in which the governmental entity is a participant. Consequently, each MWBE program should have a sunset provision as well as provisions for regular review. Additionally, there is the implication that purchasing systems should be reformed.
- MWBE programs should have sensible graduation provisions for MWBEs that have largely overcome the effects of discrimination and are no longer in need of a remedy.
- Rigid numerical quotas are at considerable risk of being overturned by judicial review; flexible, rational, contract-specific goals are more legally defensible.
- Race- and gender-conscious goals should be tied to the relative MWBE availability of qualified firms to perform a given contract and to addressing identified discrimination within an industry.
- MWBE programs should limit their adverse impact on the rights and operations of innocent third parties.

- MWBE programs should be limited in scope to only those group(s) and firms that suffer the ongoing effects of past or present discrimination.

Croson requirements were extended to federal government programs in *Adarand v. Peña*.

The Sixth Circuit has developed several distinctive standards as discussed above. The foundation of current Third Circuit standards was established from the Croson decision in 1989 through 1996 in the *Contractors I, II, III and Independent* cases. The Third Circuit’s relevant standards from *Contractors I, II, III and Independent* are summarized here:

- Contractor associations have standing to challenge set-aside programs.
- Post-enactment evidence may be considered in evaluating the legality of a program preference.
- Any preference for any specified group must be supported by evidence of discrimination or an inference of discrimination against that particular group.
- For equal protection analysis, the party challenging the government action bears the ultimate burden of persuasion.
- Instances where contractors that were awarded government contracts were also members of contractor associations that discriminated against minority contractors did not amount to passive participation in private discrimination by the relevant government actors.
- Post-enactment evidence may be sufficient as a basis for race- and gender-conscious programs but must also address other potential causes for disparity.
- A “narrowly tailored” program must correlate any race-conscious program to the identified discrimination or inferences of discrimination.
- Any numeric goal must be supported by evidence.
- Race-conscious initiatives can only be used after consideration of race-neutral alternatives.

¹Narrow tailoring elements include good faith consideration of race-neutral alternatives for elimination of barriers to M/WBE participation; project-specific goal setting; flexibility in the size of goals based upon the relative availability of qualified, ready and willing M/WBEs; and limiting the scope of such remedies to those specific firms that are significantly underutilized within an industry segment.

E.1 Introduction

- Non-discrimination efforts can include the use and analysis of race/sex information without being subject to *Croson* standards.
- The factual predicate for any constitutional race-conscious relief may consist of proper statistical evidence of disparity and anecdotal evidence:
 - Proper statistical evidence of disparity for any race-conscious relief must assess the “relevant statistical pool”—the percentage of minority businesses engaged in the local construction industry.
 - Availability, for disparity purposes, is defined by the proportion of minority-owned businesses that were available or qualified to perform the contracts or work at issue.
- Proper statistical evidence of disparity includes the “disparity index.” This index consists of the percentage of minority contractor participation in City contracts divided by the percentage of minority contractor availability in the relevant statistical pool.
- Evidence of marketplace or private sector discrimination offered by way of general testimony of discrimination is insufficient as a basis for race-conscious relief. Generalized affidavits will not satisfy the “compelling government interest” required by *Croson*.
- Race-neutral efforts, including any revolving loan fund, technical assistance and training, and bonding assistance, must also be assessed and considered prior to the use of race-conscious relief.



E.2 M³ CONSULTING'S APPROACH AND METHODOLOGY

M³ Consulting's exclusive Study methodology includes 10 analyses, which lead to overall conclusions and recommendations.

E.2.1 M³ Consulting's 10-Part Disparity Study Methodology

M³ Consulting's 10-part Study methodology provides a complete factual predicate consistent with evolving case law and the City's regulatory environment. The statistical analysis—relevant market, availability, utilization, disparity and capacity—conforms with the requirements of *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469, 109 S.Ct. 706 (1989); *Adarand Contractors, Inc. v. Federica Pena*, 515 U.S. 200, 115 S. Ct. 2097 (1995); and Eleventh Circuit progeny and determines if there are statistically significant disparities from which an inference of discrimination may be drawn. The remaining industry and market analysis assists in determining if organizational factors (active discrimination or exclusion) or private sector and marketplace factors (passive discrimination or exclusion) cause any disparity. Together, these findings allow the COK to determine if there is a compelling governmental interest in using race- and gender-conscious remedies for any statistically significant disparity. The combined analysis also leads to a set of customized recommendations that includes race- and gender-neutral initiatives and narrowly tailored race- and gender-conscious initiatives.

The City of Knoxville Disparity Study Methodology

INDUSTRY ANALYSIS	STATISTICAL ANALYSIS	MARKET ANALYSIS	CONCLUSIONS	RECOMMENDATIONS
<ul style="list-style-type: none"> Legal Analysis Procurement and SMWBE Program Operational Analysis 	<ul style="list-style-type: none"> Relevant Market Analysis Availability Analysis Utilization Analysis Disparity Ratios Regression and Capacity Analyses 	<ul style="list-style-type: none"> Anecdotal and Survey Analyses Race- and Gender-Neutral Analysis Marketplace Analysis 	<ul style="list-style-type: none"> Finding of Passive or Active Discrimination, If Any Identification of Barriers to SMWBE Participation 	<ul style="list-style-type: none"> Procurement and SMWBE Programmatic Initiatives Goal-setting Nondiscrimination Initiatives Management and Technical Assistance

Description of Disparity Study Components

- Legal Analysis** outlines the legal standards of *Richmond v. Croson*, *Adarand v. Peña* and their progeny in the Sixth Circuit as well as around the country. Such a legal analysis provides critical insight to current judicial opinions relevant to both SMWBE program design and Study analysis.
- Procurement and DBE Program Operational Analyses** examine the COK’s contracting history to determine the impact of the COK’s policies, procedures, and practices on SMWBES’ ability to do business with the COK and the effectiveness of the DBE operations on increasing SMWBE participation.
- Relevant Market Analysis** determines the geographic boundaries within which the COK performs the substantial part (about 70%) of its business activities. The identification of the bounds is also guided by legal criteria that require the COK to refine its efforts to impact SMWBE business activity in its market area.
- Availability Analysis** determines the available DBEs and Non-DBEs that are available to do business with the COK within the determined relevant market.
- Utilization Analysis** quantitatively examines the COK’s contracting history and determines the number of contracts and levels of expenditures with DBEs.
- Disparity Ratios** determine the difference between the availability of DBEs and their utilization by the COK and if any disparity is statistically significant.
- Regression and Capacity Analyses** examine differences in capacity of firms based on race and gender, using established statistical methods, and examine if race, gender, and ethnicity still impact the participation decision once a set of variables that represent capacity are controlled for. Further, the survey provides information on business characteristics, such as owner qualifications, years in business, capacity and credit market experiences.
- Anecdotal and Survey Analyses** determine the experiences of DBEs and Non-DBEs attempting to do business with the COK and in the business community overall.
- Race- and Gender-Neutral Analysis** determines the effectiveness of race- and gender-neutral programs in increasing DBE participation in both public and private sector opportunities.
- Marketplace Analysis** determines DBE participation in the marketplace, which consists of both public and private sector opportunities. Factors that impact business formation and self-employment are also analyzed in this analysis.

The methodology components M³ Consulting deploys reflect the continuing development of case law, which has increased the level and sophistication of the statistical analysis necessary to comply with *Croson* and *Adarand* standards.

E.2.2 Statistical Methodology

The statistical methodology discusses availability, utilization, and disparity. It includes a presentation of the two types of availability: “actual availability” and “potential availability”. Also included are various definitions of availability; and M³ Consulting’s “Ready, Willing, and Able” (RWASM) model. M³ Consulting has adapted this model to the specific data

sources available from COK for this study. Also discussed are the types of utilization analyses that were performed. The statistical methodology section concludes by defining the disparity ratio and significance tests, crucial for drawing conclusions regarding any disparity in the COK's recent history of contracting with DBEs.

To conduct the analysis, M³ Consulting collected vendor, bidder, contract award, purchase order (PO) and payments data for years FY 2017 to FY 2021.

A. Relevant Market

The *Croson* statistical analysis begins with the identification of the relevant market. The relevant market establishes geographical limits to the calculation of MWBE availability and utilization. Most courts and disparity study consultants characterize the relevant market as the geographical area encompassing most of a public entity's commercial activity. The *Croson* Court required that an MWBE program cover only those groups that have been affected by discrimination within the public entity's jurisdiction.²

Two methods of establishing the relevant market area have been used in disparity studies. The first utilizes vendor and contract awardee location of dollars expended by an entity in the relevant industry categories. In the second method, vendors and contractors from an entity's vendor or bidder list are surveyed to determine their location. The former is based on approaches implemented under the U.S. Justice Department guidelines for defining relevant geographic markets in antitrust and merger cases. M³ Consulting has developed an alternative method for determining an entity's relevant market by combining the above methods and using an entity's bidder lists, vendor lists, and awardee lists as the foundation for market definition.

By examining the locations of bidders, vendors, and awardees, M³ Consulting seeks to determine the area containing a preponderance of commercial activity pertaining to an entity's contracting activity. While case law does not indicate a specific minimum percentage of vendors, bidders, or awardees that a relevant market must contain, M³ Consulting has determined a reasonable threshold is between 70-75 percent for bidders, vendors, and contract award winners. Further analysis may be necessary if there are "large" differences in the percentages of these three measures.

²*City of Richmond v. J.A. Croson*, 109 S.Ct. 706, at 725 (1989).

³This analysis requires inter-governmental cooperation between public entities providing bidder, vendor, and awardee data, thus is not performed, unless such agreement is developed for individual agencies, or a consortium of agencies conducted a consortium disparity study.

B. Availability Analysis

Availability is the most problematic aspect of the statistical analysis of disparity. It is intrinsically difficult to estimate the number of businesses in the marketplace that are *ready, willing, and able* to perform contracts for or provide services to a specific public entity. In addition to determining an accurate head count of firms, the associated issues of capacity, qualification, willingness, and ability complicate the production of availability estimates.

The fundamental comparison to be made in disparity studies is between firms owned by Minority and Women-Owned Business Enterprises ("MWBEs") and other firms ("Non-DBEs") *ready, willing, and able* to perform a specific service (i.e., are "available"), as well as the number of such businesses being utilized by the locality or its prime contractors. This section presents a discussion of the availability estimates for MWBEs who are *ready, willing, and able* to perform work on contracts for COK.

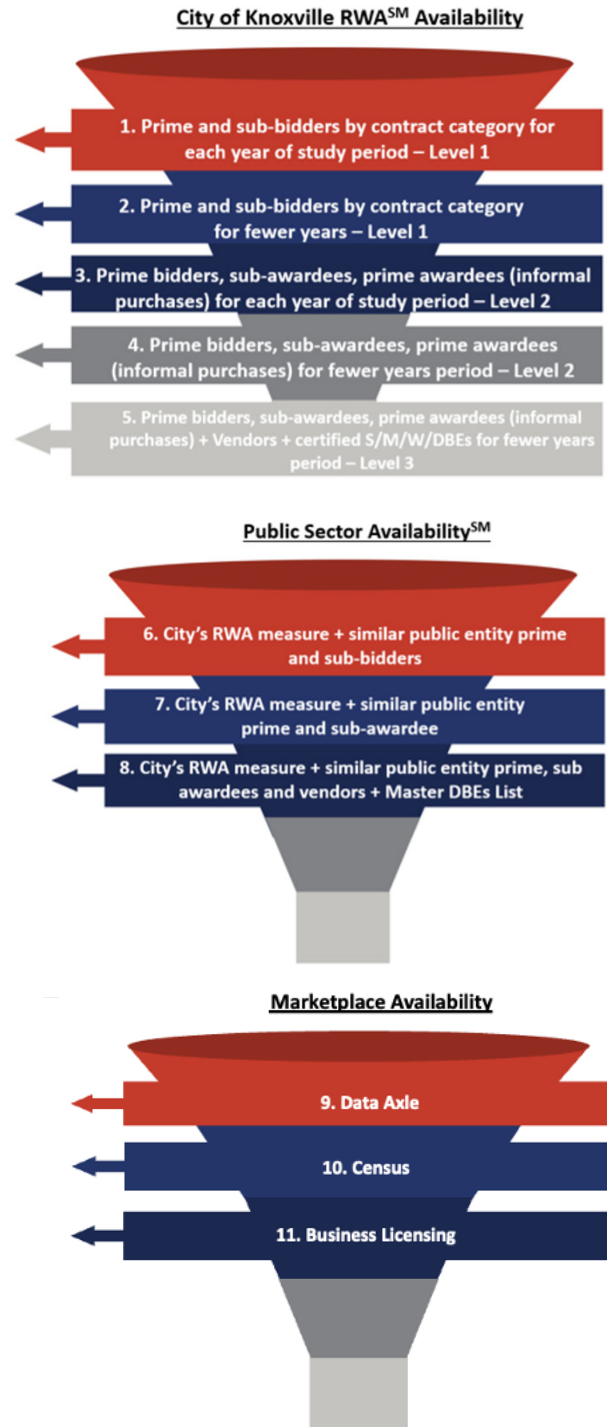
1. M³ Consulting Availability Model

M³ Consulting employs two general approaches to measuring availability: the RWASM model and marketplace availability. The availability measures can fall into the following categories:

- **RWASM**—Those firms who are ready, willing, and able to do business with COK.
- **Public Sector Availability**—Those firms who are ready, willing, and able to do business with similar public sector agencies within the COK's marketplace.³
- **Marketplace Availability**— All firms available in the COK's marketplace, as measured by the U.S. Census Annual Survey of Entrepreneurs, Data Axle or Dun & Bradstreet and Dodge Construction.

Figure E.1 below outlines M³ Consulting's Availability Model. The model starts with the optimum availability measure of those firms "ready, willing, and able" to do business with COK and cascades down to less optimum measures. Factors that determine which level of availability best suits COK's environment include the quality of available data, legal environment, and previous levels of inclusion of MWBEs in bidding and contracting activity.

Figure E.1.
RWASM Availability Model



Source: M³ Consulting, Inc.

M³ Consulting’s RWASM Availability Model is further tailored to the robustness of the City’s specific databases available for analysis. When refined to COK’s data, the RWASM Availability Model levels described in Figure E.1 above are defined as follows:

Figure E.2.
City of Knoxville Specific RWASM Availability Levels

RWA SM Availability Level	
Level 1	City of Knoxville Bidders and Sub-bidders
Level 2	City of Knoxville Bidders and Sub-bidders + AP/PO firms
Level 3	City of Knoxville Vendor Report* + SMWDBE Master List

Source: M³ Consulting; * list with requisite data elements was not available for analysis

C. Utilization Analysis

Utilization represents procurement activity including contracting, payment, purchase order encumbrances and subcontracting history of Non-DBEs and DBEs with COK. In developing the contract database to be used as the basis for determining utilization, there are three alternative measures of utilization that can be taken in each procurement category.

- The number of contracts awarded.
- The dollar value of contracts received.
- The raw numbers of firms receiving contracts.

The report presents the number of contracts awarded and the dollar value of the contract awards. Both dollars and counts are reported to determine if there are any outliers or large single contracts that cause utilization dollar values to be at reported levels. The number and dollar value of contracts are preferred over the number of firms, which is less exact and more sensitive to errors in measurement.

For instance, if a single Non-DBE firm received thirty contracts for \$5 million, and 10 African American-owned firms received one contract each worth \$100,000, measured by the number of firms, African American-owned firms would appear to be overutilized and Non-DBEs underutilized. Using the number of contracts and the dollar value of contracts awarded, the result would reverse (depending on relative availability).

D. Disparity Analysis

A straightforward approach to establishing statistical evidence of disparity between the availability of SMWBEs and the utilization of SMWBEs by the COK is to compare the utilization percentage of SMWBEs with their availability percentage in the pool of total businesses in the relevant market area. M³ Consulting’s specific approach, the “disparity ratio,” consists of a ratio of the percentage of dollars spent with SMWBEs (utilization) to the percentage of those businesses in the market (availability).⁴

Disparity ratios are calculated by actual availability measures. The following definitions are utilized in the M³ Consulting ratio:

- A = Availability proportion or percentage
- U = Utilization proportion or percentage
- D = Disparity ratio
- N_w = Number of women-owned firms
- N_m = Number of minority-owned firms
- N_t = Total number of firms

Availability (A) is calculated by dividing the number of minority and/or women-owned firms by the total number of firms. Utilization (U) is calculated by dividing total dollars expended with minority and women-owned firms by the total expenditures.⁵

⁴See DJMA, A Fact-Finding Study Prepared for the New York Metropolitan Transit Authority (January 1990).

⁵Alternative utilization measures based on number of firms and number of contracts can be calculated in a similar fashion.

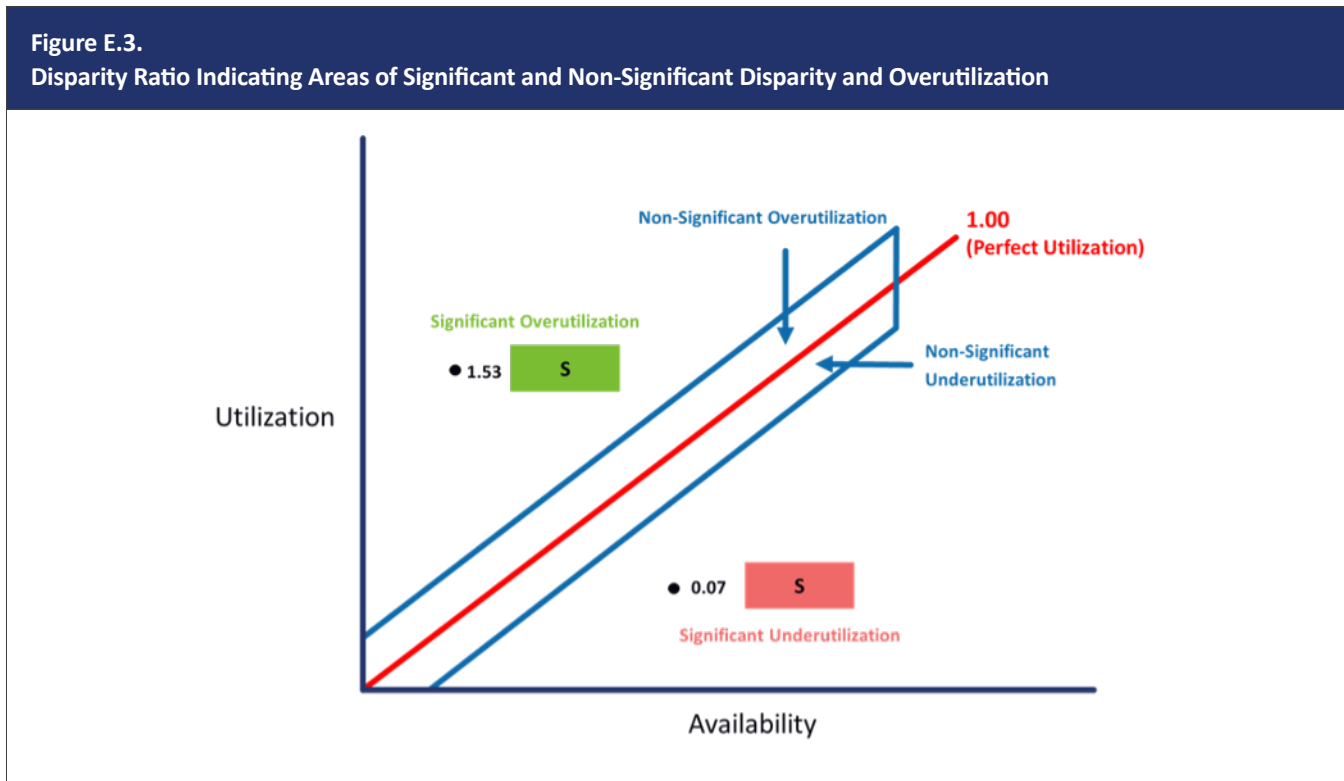
$$A_w = N_w / N_t$$

$$A_m = N_m / N_t$$

$$D = U/A$$

When $D=1$, there is no disparity, (i.e., utilization equals availability). As D approaches zero, the implication is that utilization

is disproportionately low compared to availability. As D gets larger (and greater than one), utilization becomes disproportionately higher compared to availability. Statistical tests are used to determine whether the difference between the actual value of D and 1 is statistically significant, (i.e., whether it can be stated with confidence that the difference in values is not due to chance [see Figure E.3].



Source: M³ Consulting, Inc.

The statistical disparity ratio used in this study measures the difference between the proportion of available firms and the proportion of dollars those firms received. Therefore, as the proportion of contract dollars received becomes increasingly different than the proportion of available MWBEs, an inference of discrimination can be made.

The concept of statistical significance as applied to disparity analysis is used to determine if the difference between the utilization and availability of MWBEs could be attributed to chance. Significance testing often employs the t-distribution to measure the differences between the two proportions. The number of data points and the magnitude of the dispar-

ity affect the robustness of this test. The customary approach is to treat any variation greater than two standard deviations from what is expected as statistically significant.

A statistically significant outcome or result is one that is unlikely to have occurred as the result of random chance alone. The greater the statistical significance, the smaller the probability that it resulted from random chance alone. p-value is a standard measure used to represent the level of statistical significance. It states the numerical probability that the stated relationship is due to chance alone. For example, a p-value of 0.05 or 5% indicates that the chance a given statistical difference is due purely to chance is 1 in 20.



E.3 FINDINGS AND CONCLUSIONS

E.3.2 Statistical Finding Impacting Statistically Significant Disparity

A. Relevant Market

Of the four relevant markets considered for the study, Table E.1 presents the defined relevant market for each procurement category.

Table E.1.
Summary of Relevant Market Determination

	City of Knoxville	MSA*	State of TN	Nationwide
Architecture and Engineering	✓			
Construction and Construction-Related Services		✓		
Professional Services			✓	
Non-Professional Services				✓
Goods & Supplies				✓

Source: M³ Consulting, Knoxville Contracts Data, MUNIS Financial System PO and AP data

*Knoxville, TN MSA (comprising of Anderson, Blount, Campbell, Knox, Loudon, Morgan, Roane, and Union Counties)

B. Availability Analysis

Table E.2 below summarizes the availability estimates for MWBE and SBE firms within the relevant market for COK. It provides the estimates, along with the source of the information. M³ Consulting places emphasis on the availability estimates, based on bidders', sub-bidders', and awardees' data at Level 2 of the RWASM model. The tables and the discussion are presented for the relevant markets by procurement type for all industries.

Marketplace availability measures, based on Data Axle, are presented in Table E.3 as a benchmark of minority- and women-owned firm availability and for COK to consider potentially available firms for outreach purposes.

A total of 58 firms make up the bidders, sub-bidders, and awardees located in the City of Knoxville available to perform Architecture and Engineering procurements during the study period (Table E.2). Of that number, 42 firms (72.42%) are Non-DBEs and SBEs. Among the MWBEs, a total of 16 firms represent 27.59% of availability. Women-owned firms at 22.41%, African American-owned firms at 3.45%, and Asian American-owned firms at 1.72% comprise the MWBE total availability. The Other MBEs and VOBES do not present availability for A&E procurement.

All DBE groups are represented in Level 2 availability for Construction and Construction-Related Services. Non-DBEs at 41.87% and SBEs at 35.29% together account for 77.16% of the 289 available firms. The remaining 22.84% is distrib-

uted across MWBEs and VOBES with women-owned firms at 14.88% followed in order by African American-owned firms at 4.84%, Hispanic American-owned firms at 1.38%, and the other minority-owned firms and VOBES together adding to 1.78%.

Women-owned firms represent 18.17% of the 765 firms that make up the total availability for Professional Services. Minority-owned firms comprise 5.23% with only African American-owned firms exceeding 1% at 2.61% availability. Asian American- and Hispanic American-owned firms are just under 1% at 0.92% each. Native American-owned firms (0.52%), Other MBEs (0.26%) and VOBES (0.26%) together are just under 1% availability.

The number of available firms for Non-Professional Services and Goods & Supplies are of similar magnitude — 1,493 and 1,766 respectively. Likewise, the distribution of availability across the groups is similar with MWBE availability for Non-Professional Services of 15.61% and 15.86% for Goods & Supplies. Women-owned firms sit at 9.98% of Non-Professional Services availability and 10.82% of Goods & Supplies availability are about 65% of MWBE availability for each of these procurement categories. African American-owned firms and Hispanic American-owned firms are the only minority firms with availability above 1% at 2.55% and 1.41%. For Goods & Supplies, African American-owned firms, Asian American-owned firms, and VOBES exceed 1% at 1.30%, 1.64%, and 1.13%.

E.3 Findings and Conclusions

Table E.2.
Summary Table – RWASM Level 2 Availability Percentage Participation
Relevant Market; FY 2017 - FY 2021

Race/Ethnicity/ Gender	Architecture and Engineering ⁴		Construction & Construction Related Services ³		Professional Services ²		Non-Professional Services ¹		Goods & Supplies ¹	
	#	%	#	#	#	%	#	%	#	%
Non-DBE	19	32.76	121	41.87	350	45.75	900	60.28	1,019	57.70
African American	2	3.45	14	4.84	20	2.61	38	2.55	23	1.30
Asian American	1	1.72	1	0.35	7	0.92	13	0.87	29	1.64
Hispanic American	-	0.00	4	1.38	7	0.92	21	1.41	14	0.79
Native American	-	0.00	2	0.69	4	0.52	6	0.40	11	0.62
Other MBEs	-	0.00	1	0.35	2	0.26	6	0.40	10	0.57
<i>Total Minority</i>	<i>3</i>	<i>5.17</i>	<i>22</i>	<i>7.61</i>	<i>40</i>	<i>5.23</i>	<i>84</i>	<i>5.63</i>	<i>87</i>	<i>4.93</i>
Woman-owned (WBEs)	13	22.41	43	14.88	139	18.17	149	9.98	191	10.82
Unknown MWBE	-	0.00	-	0.00	-	0.00	-	0.00	2	0.11
Total MWBE	16	27.59	65	22.49	179	23.40	233	15.61	280	15.86
SBE	23	39.66	102	35.29	234	30.59	351	23.51	447	25.31
VOBE	-	0.00	1	0.35	2	0.26	9	0.60	20	1.13
Grand Total	58	100.0	289	100.00	765	100.0	1,493	100.00	1,766	100.0

Source: M³ Consulting; Knoxville Contracts Data; MUNIS PO and AP data; Knoxville Vendor data; Other Minority is a firm identified as MBE with no specific race/ethnicity identified; Unknown DBE is a firm identified as DBE, with no specific race/ethnicity/gender identified.

¹Nationwide

²State of Tennessee

³Knoxville, TN MSA

⁴City of Knoxville

E.3 Findings and Conclusions

Table E.3.
Summary Table – Data Axle Availability
Relevant Market; 2021

Race/Ethnicity/ Gender	Architecture and Engineering ⁴		Construction & Construction Related Services ³		Professional Services ²		Non-Professional Services ¹		Goods & Supplies ¹	
	#	%	#	%	#	%	#	%	#	%
Non-DBE	84	66.14	643	84.94	1,286	59.07	2,492	64.53	1,437	70.80
African American	2	1.57	5	0.66	17	0.78	43	1.11	21	1.03
Asian American	2	1.57	1	0.13	40	1.84	22	0.57	76	3.75
Hispanic American	4	3.15	13	1.72	44	2.02	94	2.43	28	1.38
Native American	-	0.00	-	0.00	3	0.14	4	0.10	1	0.05
Other MBEs	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00
<i>Total Minority</i>	<i>8</i>	<i>6.30</i>	<i>19</i>	<i>2.51</i>	<i>104</i>	<i>4.78</i>	<i>163</i>	<i>4.22</i>	<i>126</i>	<i>6.21</i>
Woman-owned (WBEs)	35	27.56	95	12.55	787	36.15	1,207	31.25	466	22.97
Unknown MWBE	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00
Total MWBE	43	33.86	114	15.06	891	40.93	1,370	35.47	592	29.2
SBE	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00
VOBE	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00
Grand Total	127	100.00	757	100.00	2,177	100.00	3,862	100.00	2,029	100.00

Source: Data Axle Firms as of Feb. 2021; M³ Consulting.

¹Nationwide

²State of Tennessee

³Knoxville, TN MSA

⁴City of Knoxville

C. Utilization Analysis

Table E.4 summarizes utilization of MWBEs by the three utilization measures: Purchase Orders, Accounts Payables, and Contract Awards. Table E.5 reflects utilization by relevant market, by race and gender breakdowns.

Utilization across the three measures (Table E.4) range from a low of zero for MBEs participation in A&E contracts as measured by POs and contract dollars to a high of 20.97% for MWBEs for Professional Services contract dollars. Together MBEs, WBEs, and MWBEs show the highest level of utilization in Non-Professional Services, followed by Goods & Supplies. Non-Professional Services utilization rates for MWBEs are 11.12%, 19.06%, and 20.97% as measured by purchase orders, accounts payable, and contract dollars respectively. For Goods & Supplies, the MWBE utilization comes in at 10.14% for purchase orders, 10.51% for accounts payable, and 4.72% for contract dollars. Their participation rates mostly remained below 2.5% for Architecture & Engineering and Construction and Construction-Related Services. For Professional Services MWBE utilization is in the 6% to 8% range for POs and APs but drops significantly to less than 1% for contract dollars.

Table E.5 disaggregates the data in Table E.4 among the minority groups to be used to calculate the disparity ratios. The percentages in this table provide the utilization metrics for the numerator used for the disparity ratios found in Chapter VII. For A&E each of the minority groups and VOBs show zero utilization. SBE utilization is at 48.22%. African American- and Native American-owned firms' utilization in Construction and Construction-Related Services is 0.26 % and 0.01 % respectively. SBE utilization for this procurement category is 42.22%. For Professional Services, minority utilization combines for less than 0.25% at 0.13%, 0.02%, and 0.10% for African American-, Asian American- and Hispanic American-owned firms respectively. SBE firms make up 23.17% of the utilization for Professional Services. The combined minority firm's percentage is highest for Non-Professional Services at 6.36%. The break down ranges from 0.03% for Native American-owned firms to 4.51% for African American-Owned firms. SBE firms' lowest utilization occurs in Non-Professional Services at 7.37%. Total MBE utilization for Goods & Supplies is 1.29% with Asian American-Owned firms comprising most of the utilization at 1.04%. SBEs and VOBs show utilization of 11.9% and 0.17 % respectively.

D. Disparity Analysis

Table E.6 summarizes the disparity ratios for each of the procurement categories at the race/ethnic/gender group level,

for the COK procurements for the period FY 2017-FY 2021. Based on the foregoing analysis and the summary below, findings of statistically significant disparity are made for the following groups in the following procurement categories:

- Architecture and Engineering—WBEs
- Construction and Construction-Related Services—All groups
- Professional Services—African American, WBEs, Total Minority and SBEs
- Non-Professional Services— All groups except Native Americans (African American- and Asian American-owned firms are overutilized)
- Goods & Supplies—All DBE groups.

E. Capacity Analysis

As disparities in procurement and contracting are often attributed to differences in capacity of Non-DBEs and DBEs, the capacity analysis sought to examine if there were any differences in capacity of firms based on race or gender that impact disparity outcomes and that could hinder firms from being actually and potentially available to the COK. The purpose of this analysis is to determine if there are any differences in the capacity of race, gender, and ethnic groups and, after accounting for any differences in the capacity of firms, if race and gender are contributing factors to any disparities found.

Capacity Based on Data Axle

Comparing capacity of firms measured by the number of employees, the number of firms in the lowest range of 1-19 employees are 2,740 MWBE firms, with 2,345 of these as WBEs, 395 MBEs and 5,420 Non-DBE firms. As capacity increases, MWBEs remain lower than the Non-DBE firms, with 53 Non-DBE firms with 100-249 employees compared to 24 MWBE firms. For capacity measured as 250-499 employees, only 5 MWBEs, 4 WBEs compared to 15 Non-DBE firms. Looking at firms with 1,000-4,999 employees, there are 1 Non-DBE firm and 1 WBE firms.

If capacity was to be measured using sales volume, then MBEs, WBEs, and Non-DBEs are represented in all sales ranges up to \$100 million. 9 Non-DBE firms and 3 WBEs are in the capacity range of \$100 million - \$500 million. Most of the firms concentrate in the ranges up to \$10-\$20 million. Consequently, Based on sales volume, differences in capacity are not vast based on race or gender groups, although the number and proportion of MWBE firms is smaller, overall.

Table E.4.
MWBE Utilization in Percent of Dollars of Purchase Orders, Payments, and Contract Awards
Summary of MWBE Utilization; FY 2017 – FY 2021
By Relevant Market

Procurement Category	MWBE Utilization Based on Purchase Orders (in percent)			MWBE Utilization Based on Accounts Payables (in percent)			MWBE Utilization Based on Contract Dollars (in percent)		
	MBE	WBE	MWBE ⁵	MBE	WBE	MWBE ⁵	MBE	WBE	MWBE ⁵
Architecture & Engineering ⁴	0.00	1.54	1.54	0.05	1.33	1.38	0.00	2.24	2.24
Construction and Construction-Related Services ³	0.35	2.44	2.79	0.27	1.64	1.91	0.34	1.92	2.26
Professional Services ²	0.24	5.49	5.73	0.70	6.75	7.45	0.30	0.40	0.69
Non-Professional Services ¹	6.36	4.75	11.12	8.75	10.31	19.06	9.62	11.35	20.97
Goods & Supplies ¹	1.29	8.85	10.14	2.42	8.09	10.51	2.69	2.03	4.72

Source: M³ Consulting; COK Contracts Data, PO and AP data, COK Vendor data; Relevant Market; Other Minority is a firm identified as MBE, with no specific race/ethnicity identified; Unknown MWBE is a firm identified as MWBE, with no specific race/ethnicity/gender identified.

¹Nationwide

²State of Tennessee

³Knoxville, TN MSA

⁴City of Knoxville

⁵Includes unknown Minority Business Enterprises (MBEs)

Table E.5.
Utilization in Dollars of Purchase Orders, Payments, and Contract Awards
Summary of Utilization; FY 2017 – FY 2021
By Relevant Market

Race/ Ethnicity/ Gender	Architecture and Engineering ^{4,5}		Construction & Construction Related Services ^{3,6}		Professional Services ^{2,5}		Non-Professional Services ^{1,5}		Goods & Supplies ^{1,5}	
	\$	%	\$	%	\$	%	\$	%	\$	%
Non-DBE	5,858,905	50.24	48,490,788	55.66	31,703,091	71.10	64,951,378	81.44	103,969,115	77.79
African American	-	0.00	223,805	0.26	56,206	0.13	3,594,537	4.51	64,310	0.05
Asian American	-	0.00	-	0.00	9,880	0.02	1,337,993	1.68	1,384,527	1.04
Hispanic American	-	0.00	-	0.00	42,371	0.10	119,181	0.15	125,417	0.09
Native American	-	0.00	9,985	0.01	-	0.00	23,774	0.03	151,153	0.11
Other MBEs	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00
<i>Total Minority</i>	-	<i>0.00</i>	<i>233,790</i>	<i>0.27</i>	<i>108,457</i>	<i>0.24</i>	<i>5,075,485</i>	<i>6.36</i>	<i>1,725,407</i>	<i>1.29</i>
Woman-owned (WBEs)	180,005	1.54	1,431,713	1.64	2,447,028	5.49	3,788,765	4.75	11,828,920	8.85
Unknown MWBE	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00
Total MWBE	180,005	1.54	1,665,502	1.91	2,555,485	5.73	8,864,251	11.12	13,554,327	10.14
SBE	5,622,989	48.22	36,956,945	42.42	10,330,092	23.17	5,878,286	7.37	15,900,611	11.90
VOBE	-	0.00	-	0.00	-	0.00	56,376	0.07	228,405	0.17
Grand Total	11,661,899	100.00	87,113,235	100.00	44,588,667	100.00	79,750,291	100.00	133,652,457	100.00

Source: M³ Consulting; the COK Contract Awards Data, PO and AP data, the COK Vendor data; Relevant Market—Relevant Market;
 May not add up because of rounding error.

¹Nationwide

²State of Tennessee

³Knoxville, TN MSA

⁴City of Knoxville

⁵Utilization measure is PO Data

⁶Utilization measure is AP Data

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Table E.6.
Summary Disparity Ratios by Race, Ethnicity, and Gender
Utilization vs. RWASM Availability Level 2
Relevant Market, FY 2017 - FY 2021

Race/Ethnicity/ Gender	Architecture & Engineering (Purchase Orders)		Construction & Construction- Related Services (Payments)		Professional Services (Purchase Orders)		Non-Professional Services (Purchase Orders)		Goods & Supplies (Purchase Orders)	
	Ratio	Sign.	Ratio	Sign.	Ratio	Sign.	Ratio	Sign.	Ratio	Sign.
Non-DBE	1.53	S	1.33	S	1.55	S	1.35	S	1.35	S
African American	0.00	NS	0.05	S	0.05	S	1.77	S	0.04	S
Asian American	0.00	NS	0.00	S	0.02	NS	1.93	S	0.63	S
Hispanic American	ND	ND	0.00	S	0.10	NS	0.11	S	0.12	S
Native American	ND	ND	0.02	S	0.00	NS	0.07	NS	0.18	S
Other MBEs	ND	ND	0.00	S	0.00	NS	0.00	S	0.00	S
<i>Total Minority</i>	<i>0.00</i>	<i>NS</i>	<i>0.04</i>	<i>S</i>	<i>0.05</i>	<i>S</i>	<i>1.13</i>	<i>NS</i>	<i>0.26</i>	<i>S</i>
Woman-owned (WBEs)	0.07	S	0.11	S	0.30	S	0.48	S	0.82	S
Unknown MWBE	ND	ND	ND	ND	ND	ND	ND	ND	0.00	NS
Total MWBE	0.06	S	0.09	S	0.24	S	0.71	S	0.64	S
SBE	1.22	NS	1.20	S	0.76	S	0.31	S	0.47	S
VOBE	ND	ND	0.00	S	0.00	NS	0.12	S	0.15	S

Source: COK Contracts Data, PO and AP data; M³ Consulting; .

Significance is S and Ratio is Less than 1—Statistically Significant Underutilization;

Significance is S and Ratio is Greater than 1—Statistically Significant Overutilization.

ND – Not Determined (Represents zero RWASM availability).

For Architecture and Engineering, MWBEs, and WBEs are represented in every revenue range to \$20 million. 1 Asian American- and 1 Hispanic American-owned firm is in the range of \$10-\$20 million. 1 African American-owned firm is in the \$1-\$2.5 million sales volume range and 6 Hispanic American- and 1 Asian American-owned firms up to \$10 million. Most of the firms concentrate in the range up to \$2.5 million. For Construction, Non-DBEs occur in all sales volume ranges up to \$50 million. Looking at the range below \$500,000, we can observe a concentration of firms: There are 38 WBEs, 6 Hispanic American-, and 3 African American-owned firms. There are no minority-owned construction firms over the \$10 million range.

Capacity Based on Survey Regressions

M³ Consulting conducted a survey of firms on the COK vendor registry, Data Axle list and the Master SMWBE list, with a focus on gathering capacity data to be used in the regression analysis to examine for differences in capacity based on race/gender/ethnicity, if any. The list includes firms that may never have done business with COK. The process involved creating a questionnaire, sample design, data collection and coding, analysis, and interpretation. Questions were designed with the specific purpose of collecting information about the availability of firms seeking to do business with COK and the private sector and their capacity.

A total of 9,386 firms were sent an online survey invitation with a unique link to the survey on September 7, 2022. The survey was closed on September 28, 2022, with a total of 366 completed responses. Reminders were sent to non-responders four times over the subsequent three weeks.

Utilizing the Blinder-Oaxaca (BO) decomposition method for estimating the extent of discriminating between different groups, we find that Non-DBE received 16.95 (exp (0.1566)-1)% **greater** total gross receipts from all sources in 2021 than they would have if discrimination did not exist. In addition, the MWBE group received 13.04 (exp (-0.1397)-1)% **less than** it would have if prejudice had not occurred.

Capacity Based on Public Use Microdata Sample

Using a binary logistic regression model and the IPUMS 2019 ACS five-year database for the State of Tennessee, M³ Consulting attempted to examine the impact of economic and demographic characteristics on the self-employment decision and whether there are differences in the probability of self-employment among the different race/ethnicities and genders. Additionally, M³ Consulting analyzed the factors that

impact self-employment income and whether self-employment income is impacted by race and/or gender.

- According to their socio-economic characteristics, individuals with Bachelor's degree are significantly more likely to be self-employed relative to individuals with high-school diploma or less. Being Married increases the likelihood of being self-employed in Tennessee relative to being unmarried.
- The coefficients for Property Value and Personal Earned Income are extremely small but positive, consequently a change in these two features will increase in a very small amount the likelihood of being self-employed due to the presence of alternative income to make the decision towards self-employment.
- Working in the Construction sector or Professional Services increases the likelihood of self-employment in the State of Tennessee.

M³ Consulting utilizes a linear regression analysis to estimate the impact of race and gender on self-employment earnings, controlling for economic and demographic characteristics. A summary of the results are as follows:

- All other variables kept constant, a self-employed Hispanic American will earn about \$15,920 less (but this result is only marginally significant), a white female will earn about \$3,912 less.
- An increase in mortgage payments, in property value, or in personal earned income will result in a very small increase in earnings from self-employment within the State. If the person sees an increase in another income source, it will result in a decrease of \$53,288 in self-employment earnings.
- Among the industries, individuals in Construction and Construction-Related Services, Non-Professional Services, and Professional Services will earn less in self-employment.

E.3.3 Qualitative Findings Impacting Statistically Significant Disparity

A. Procurement and DBE Program Analysis

COK has developed detailed procurement and DBE inclusion

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policies and procedures. Based on findings, M³ Consulting asserts that the COK's Procurement and DBE program policies, procedures and practices contain aspects that may negatively impact the ability of DBEs to participate in the COK's procurement and contracting opportunities. Specific findings include:

- MBE utilization does not reach 5%, except in Non-Professional Services
- Total minority utilization in A&E, Construction and Professional Services is below 1%
- Grant recipients are not required to adhere to COK inclusion efforts as a condition of receiving funding
- Department resource deficits negatively impact post-award contract monitoring and auditing tasks in real time via site visits and desk audits
- There is limited internal and external dissemination of DBE attainment data and reporting
- COK has only one staff person (Small Business Diversity Outreach Manager) charged with working with COK area's MFTA providers and all their various partners, which fosters perceptions of under service and disconnect to the vendor community.

The current COK diverse vendor inclusion goals are established by the Small Business & Diversity Outreach Office which resides within the Purchasing Division. The COK currently sets aspirational goals at 10% of its total procurements to be attained by DBE firms. COK's current goal-setting model allows separate goals for MBEs, WBEs, and SBEs while simultaneously counting them in every category for which they qualify. The COK Contracts Manager produces an annual fiscal year-end report that details DBE spend and percentages for the Goods & Supplies, Construction, and Professional Services procurement types which follows a hierarchy of minority-owned first, then women-owned, then small business designation is followed. Miller³ Consulting recommends leadership rely on and encourage the Contract Manager's reporting format enterprise wide.

Limited Knowledge and Staff Training Related to Inclusive Procurement and SMWBE Program

The Small Business Diversity Outreach Office (SBDO) Manager is seasoned and well versed in inclusion outreach and monitoring protocols. Findings indicate there is no shared ownership of achieving SBDO Office's mission at the depart-

mental level by staff. As a result, there appears to be limited collaboration with the SBDO office and user departments in implementing inclusive procurement strategies. Staff interviews indicated that the COK does not currently offer many technical assistance resources itself but continues to reach out to partner organizations. Staff shared that training regarding the COK's DBE inclusion initiatives was minuscule or nonexistent. The Diversity Business Advisory Council (DBAC) who is charged with advising the COK on strategies aimed at increasing the amount of business being done with COK's DBE community has not achieved its desired outcome.

Repeated Use of Same Vendors at Informal Level

COK staff indicated that many departments engage repeatedly with firms they've previously worked with. The enterprise-wide culture does not incentivize staff with buying authority, to periodically look for new entrants or DBE providers into a product or service area that a department regularly procures. This has resulted in the same companies being awarded the same informal contracting opportunities where staff with buying authority have greater discretion. Limited contract compliance, tracking and reporting significantly decreases the visibility of these practices such that accountability of staff in this area is not elevated.

Enterprise-wide Ownership of DBE Program Policies and Procedures

The COK Procurement manual indicates that all COK departments shall cooperate with the Purchasing Division in the implementation of procedures for the identification of DBEs and the monitoring of procurements from them. Findings indicate departments largely defer the responsibility for the DBE program and its implementation to the SBDO Office. Departmental staff interviews reflected inconsistent views on the department's internal responsibility for DBE program monitoring procedures.

The lack of appropriate accountability mechanisms can result in the COK being challenged in ensuring procurement processes are open, fair, transparent and inclusive. There are no documented policies and procedures that provide operational guidance on DBE program administration which negatively impacts DBEs' ability to successfully navigate the COK's procurement processes.

Vendor Registration

Any firm or organization seeking to conduct business with COK must be registered with the Purchasing Division prior to

the opening of any bid opportunity. COK provides a Vendor List Application Form on its procurement website that prospective vendors are expected to complete. Once a vendor registers, they have an option that will allow them to receive email notifications of bid opportunities commensurate with the types of goods and services the vendor indicated they provide during registration. The COK currently utilizes Bidnet Direct for this notification functionality. Bidnet Direct requires vendors to pay a fee to access the full functionality of its portal to receive bid notifications. This payment requirement can hinder small and minority-owned businesses from registering on the portal.

Inconsistent and Limited Monitoring and Reporting

COK has a Contracts Manager position that is charged with administering activities that are traditionally associated with contract compliance monitoring and reporting. Currently, there are no formal regular reporting requirements of the departments into the SBDO office or other real-time tracking that speaks to the event that an awarded contractor or subcontractor has failed to meet its DBE commitments under the awarded contract. M³ Consulting recommends that the SBDO Office is given the authority to require such real-time reports. In addition to being engaged in the resolution of contractor disputes, funds control tasks, contracts reconciliation tasks, etc., the Contracts Manager's duties include analyzing and tracking contracts to ensure renewals, extensions, amendments, and change orders are executed on time and to COK's standard. When active contracts experience change orders or other amendments that affect the contract value, the Contracts Manager is charged with ensuring that bonds and insurance are appropriately adjusted to meet the change orders, amendments, and/or extensions.

In terms of reporting, the reviewed policy document indicates that the Contracts Manager ensures that all direct recipients of federal grants, grant amendments, and cooperative agreements in excess of \$25,000 are subject to the requirements of the Federal Funding Accountability and Transparency Act of 2006 (FFATA). The policy document identifies the Contracts Manager as the responsible party for submitting sub-recipients' sub-award information to the Federal Funding Accountability and Transparency Act (FFATA) Sub-award Reporting System at the time of award of the sub-grant, in accordance with the requirement to report at the end of the month following the month in which any sub-award under the grant has been made.

Regarding non-federally funded project monitoring however, staff interview feedback suggested that they are "...not doing a very good job..." in terms of monitoring and auditing DBE performance on active contracts in real-time via site visits and desk audits. Staff indicated that would certainly be a place where they would assign any additional staff resources if they became available. In fact, the COK Purchasing Agent had assumed many of the Contracts Manager tasks in addition to her own responsibilities until the position was finally filled in the spring of 2023. Staff also indicates that they are hopeful that the advent of a new contract management system that they will enhance COK's ability to execute an enhanced form of contract compliance and tracking.

Forecasting and Notification of Opportunities

Robust and continuous forecasting has implications for the diverse contracting community's ability to properly prepare to compete for upcoming contracting opportunities. The absence of robust forecasting and notification reduces transparency as it relates to opportunities where SBEs and MWBEs can perform.

Currently, the COK has implemented an annual Business Opportunity Breakfast, participates in the East Tennessee Purchasing Association (ETPA) Annual Business Matching & Tradeshow, hosts an Annual Diversity Business Enterprise Awards Ceremony, and is slated to facilitate a future Diversity Business Expo in the upcoming fiscal year. These efforts seek to inform the community of upcoming opportunities, but the COK currently relies heavily upon the annual Business Opportunity Breakfast event as their primary forecasting vehicle. The annual Opportunity Breakfast event provides the vendor community access to meet-and-greet, talk with City department managers, as well as representatives from Knoxville Area Transit (KAT), Knoxville Utility Board (KUB), Knoxville's Community Development Corporation (KCDC), the Public Building Authority (PBA) and other agencies to be made aware of upcoming bid opportunities. However, there was no indication that budgeting and forecasting is an ongoing coordinated, enterprise-wide process to determine upcoming procurement needs to share with the public regularly throughout the operating year before opportunities are advertised and enter the formal process.

Procurements below \$25,000 are not required to be advertised using any source (e.g., newspaper, website). There is also no indication that the departments engage in any formal efforts to analyze capital project solicitations to break down

the scopes into the different trade categories to support outreach and matchmaking with diverse vendors—including SBEs and DBEs.

Limited Diversity Firm Outreach and Matchmaking

Findings revealed that there is no consistent or enterprise-wide philosophy and approach to DBE firm outreach and matchmaking. Departments report that they rely on the Purchasing Division and their Small Business & Diversity Outreach staff to execute all outreach, departments provide names and contacts of firms they are familiar with to the SBDO Office to include for outreach. The staff reported that there was a precipitous decrease in outreach and in-person “how to do business” engagements with the diverse business community in part due to the Covid-19 pandemic and is only recently beginning to gear up again.

The Nature of the COK’s Centralized Procurement Process and Impact on DBE Participation

M³ Consulting does not advocate for a centralized or decentralized procurement process. We seek to determine the impact of either process on the ability of DBEs to contract with a public entity. Without appropriate infrastructure, management and operational support, an unwieldy bureaucracy can be created that serves as a de facto barrier to DBEs. As it relates to the COK, M³ Consulting’s analysis found that the procurement function for Architecture & Engineering, Construction and Construction-Related Services, Goods & Supplies, Non-Professional Services, and Professional Services are procured mostly in a centralized manner. COK’s Purchasing Division serves as the focal point of their center-led purchasing structure. The Purchasing Division is responsible for developing purchasing policies and standard operating procedures for the entire municipality.

M³ Consulting found that the policies are well organized in their procurement manual and made available throughout the COK. Although not completely centralized their center-led structure still has departments or divisions maintain some purchasing duties and responsibilities independent of the Purchasing Division. In the absence of formal reporting requirements across the enterprise, even the few decentralized procurement activities that occur at the department level can have the impact of decreasing accountability and transparency. Robust infrastructure and integration, coordination, and delegation can help to safeguard against any negative impactors.

M³ Consulting recommends the SBDO Office and the Purchasing Division work more collaboratively with buying departments’ leadership to ensure COK’s DBE policy and practices are adhered to, including the leveraging of technologies that enable regular DBE monitoring and spend reporting to flow from the Departments to the Purchasing Division offices.

B. Anecdotal Analysis

Anecdotal evidence gathered through a series of 20 one-on-one, in-depth interviews and three focus groups led to the following observations that illustrate the possible barriers interviewees perceive to exist for DBE owners when attempting to do business with the COK:

Disconnect Between Buyers/Decision-Makers

The majority of small, minority, and women business owners interviewed agreed that the COK’s targeted outreach activities to DBE firms were very informative and supportive but did not equate to substantial impact for most of the firms. The DBE firms interviewed stated that limited-to-no access to COK’s “Buyers/Decision Makers” prevented them from connecting, fostering relationships, and promoting their capabilities. As a result, those interviewed believe that the non-DBE firms who have previous access, relationships, and a positive past performance track record with COK’s Buyers/Decision-Makers are the firms who continue to receive repeat contacts for contract awards.

Gap in Trust and Confidence

Among vendor community interviewees, there is a strong belief that pursuing COK procurement opportunities is “a waste of time” and that the COK is not serious about implementing new strategies, practices, and policies that eliminate barriers and challenges for DBEs attempting to transact business.

Perceived Inequitable Low Bid Policies

Several interviewees found the COK’s low bid policies to be unfair and to deter DBEs from bidding and winning procurement opportunities. According to these firms, the difference in the economy of scale when larger firms compete against DBEs strictly on low price has made it difficult for small, minority, and women-owned firms to win.

Consider Implementation of Prime Contractor/DBE Matchmaking/Mentor-Protégé Program

Many of the DBE firms interviewed expressed a need to learn and build sustainable relationships with the COK and its Prime Contractors. Additionally, prime contractors communicated a frustration in locating DBE firms and connecting with those DBE's that had the skill-set and capacity to subcontract on COK projects. One of the most successful industry programs to help address this concern by prime and DBEs is the implementation of a prime contractor/DBE Matchmaking/Mentor-Protege Program.

C. Marketplace Analysis

To understand factors that impact the participation of DBEs with COK, it is important to understand the role of the marketplace disparities and the potential opportunities that may limit the participation of DBEs. The demographic configuration may explain in part the differences in the market availability and utilization of DBEs. COK has a large white population, while African Americans make up the second-largest group in terms of participation in the three geographical perspectives.

Taking a gauge of the civilian labor force, 63.2% of whites, 64.0% of African Americans, 63.8% of Hispanic Americans, and 70.6% of Asian Americans are part of the labor force in COK. While whites, African Americans, American Indians, and Hispanic Americans see a drop in the percentage within the Metro Area and the State, African Americans and Hispanic Americans maintain a nearly similar participation in the State and the Metro Area.

The Marketplace Analysis shows there is inequality in the distribution of the labor force by gender and ethnic/racial groups:

- In all construction occupations, white-male workers lead at the city, Metro Area and state levels.
- Under Employment In Selected Apprenticeable EEO Professional Occupations, we can see that males lead in Computer, Engineering, and Science, as well as Protective Service occupations.
- Healthcare Practitioners are predominantly female, as well as Other Professional, and Office and Administrative Support occupations.
- Whites dominate in all occupations, primarily because represent the majority of all groups.

Dodge, which surveys construction-related activity, is used as a source to examine SMWBE participation in marketplace construction activity. Using Dodge data, MWBE participation in marketplace construction activity is examined. For the State of Tennessee, the data indicates that MWBE has limited penetration across all roles.

Comparing bid activity across private and public owners of projects within the State of Tennessee, 2.1% of MWBEs were ranked #1 (winner) in private sector projects, while 6.9% were ranked #1 in public sector projects. Of all private sector bids in the State of Tennessee, about 95.5% were awarded to Non-DBEs, 1.1% to minority-owned firms, and 1% to women-owned firms in FY 2021.

Based on business licenses issued, 94.76% of business licenses are held by Non-DBE firms. Minority-owned businesses held 1.40% and WBEs held 1.23%. Similar disparities are present in other roles. One African American and one SBE each held licenses in Architecture & Engineering. 28 African Americans, 71 WBEs, 30 Hispanic Americans, 2 Asian American and 3 American Indians hold licenses in Construction. 7 African Americans and 7 WBEs hold licenses in Professional Services. 67 WBEs, 65 African American-, 17 Hispanic American-, 5 American Indian-, and 2 Asian American-owned business(es) are licensed in Non-Professional Services. 78 WBEs, 24 African American-, 10 Asian American-, 27 Hispanic American-, and 2 American Indian-owned business hold licenses in Goods & Supplies.

D. Race Neutral

M³ Consulting reviewed the offerings of 27 organizations servicing the Knoxville, Greater Knoxville, and East Tennessee Region. M³ Consulting conducted a series of in-person and Zoom interviews with 20 Executive Management, Departmental Directors, or Program Managers that were all recorded and transcribed. Upon completion of the interview phase, data was extracted from each of the transcriptions to build a comprehensive analysis of the impact race-neutral programs were having in the Knoxville area.

Along with the interviews, publicly available data was collected on each organization. Additional data not publicly available was provided by the organizations researched. That data was then aggregated into the following two sections as represented in the full report:

- 11.3 Organizations: Discussion of Race Neutral Programs and

■ 11.4 Anecdotal Comments from Agency Executives, Managers, and Directors

The executive directors identified the following issues impacting the DBE firms that they service:

- Lack of Government Race-Based Remedies Preventing Growth
- Lack of Capital is a Barrier
- Lack of Meaningful Goals and Requirement Key Cause for Lower Number of Contract Awards in Knoxville
- Lack of Connection and Relationships with Purchasers and Decision-Makers
- Lack of Shared Stakeholder-to-Stakeholder Best Practices and Initiatives
- Lack of Personnel and Capacity

There is a vast race-neutral programmatic ecosystem for DBEs in the Knoxville area. The technical, managerial, and capital organizations provide services from business planning to loans, networking, mentorship, and outreach. Despite the valiant efforts of these race-neutral programs to launch new DBEs and increase the capacity and growth of existing ones to thrive in the Knoxville area, DBEs still face challenges gaining access and being utilized by the COK and other public and private entities. M³ Consulting's analysis of Race Neutral programs revealed that these programs alone have not been effective in increasing availability, capacity or utilization of DBEs.



E.4 RECOMMENDATIONS

In light of the findings discussed above, M³ Consulting is providing the following recommendations to the COK. The recommendations contain both race/gender-neutral and race/gender-conscious elements. These recommendations consist of a listing of pertinent options from which the COK may select in tailoring its efforts to the findings of this report. The options combine agency-specific and best practices recommendations that are legally defensible based on the factual findings of this study. The COK should consider adoption of those recommendations considered most appropriate in terms of cost, resources, likely effectiveness, community acceptance and organizational feasibility.

E.4.1 Identification of Race/Gender-Conscious Goal Possibilities

The actual setting of legally defensible DBE goals is a policy decision that requires action by the COK. The COK can establish overall DBE policy goals that then may be used by employees with buying authority. The COK can then develop an action plan that specifies procedure, program and goal improvements that will be made, and the timeline allocated for those tasks.

Establishment of Race/Gender-Conscious Goals

Based on the statistical findings in the disparity chapter, Table E.7 presents the utilization of qualified firms as reflected by the percentage of contracts for purchase orders awarded and payments made. When compared to the availability of Ready, Willing and Able (RWASM) firms, the utilization appears to be lower than expected. M³ Consulting draws an inference of discrimination against the following race, ethnicity, and gender groups that are illustrated by the blue highlights representing statistically significant underutilization.

Table E.7.
Inference of Discrimination Based on Findings of Statistically Significant Disparity
By Race/Ethnicity/Gender
By Procurement Type For the City of Knoxville

Race/Ethnicity	Architecture & Engineering (Purchase Orders)	Construction & Construction-Related Services (Payments)	Non-Professional Services (Purchase Orders)	Professional Services (Purchase Orders)	Goods & Supplies (Purchase Orders)
African American	Disparity	Disparity*	Disparity*	Disparity*	Disparity*
Asian American	Disparity	Disparity*	Disparity*	Disparity	Disparity*
Hispanic American	ND	Disparity*	Disparity*	Disparity	Disparity*
Native American	ND	Disparity*	Disparity	Disparity	Disparity*
WBE	Disparity*	Disparity*	Disparity*	Disparity*	Disparity*

Source: M³ Consulting
 *Statistically significant
 Light Purple- Underutilization
 Red – Overutilization
 Unshaded – Non-Significant Underutilization
 ND – Not Determined (Zero Availability)

As significant disparity is eliminated in the race and gender-conscious categories, the utilization of race and gender-neutral means in attaining the established goals should be increased. However, in all instances where race and gender-neutral means are utilized, if significant disparity reemerges, then race and gender-conscious techniques can be utilized on a nonpermanent basis to correct identified disparities.

While the COK should utilize race- and gender-neutral means to address participation of groups where there is no statistically significant disparity, that does not mean or condone passive or no outreach to these groups, as significant disparity can emerge (or reemerge) with a lack of focus by the COK to be inclusive. The COK should continuously focus on an inclusive procurement environment that considers MWBEs and SBEs and narrow the focus, when necessary, based on meeting established goals.

Availability, utilization and disparity measures should be tracked on an annual basis and annual goals set as discussed above, as the recommendations below are implemented.⁶ RWASM availability is significantly impacted by bidding patterns and practices. If the bidding patterns of the COK vendors are altered, due to internal adjustments within the COK or

marketplace factors, the impact of those changes should be captured.

E.4.2 Enhancements to Procurement and DEB Procedures and Practices

Below are recommendations to the COK for organizational, cultural, structural and programmatic changes that can lead to sustainable change in the COK’s procurement operations. The recommendations can also assist in bringing the COK into an inclusive procurement environment that ensures regulatory compliance and alignment with best practices.

A. Change Inclusion Focus from Programmatic (Compliance with SMWBE Regulations) to Organizational (Commitment to Inclusive Procurement Environment)

The COK currently sets aspirational goals at 10% of its total procurements to be attained by DBE firms. COK’s current goal-setting model allows separate goals for MBEs, WBEs, and SBEs while counting them in every category for which they qualify.

⁶Annual goals should be set only as benchmarks that provide guidance in accessing how well the program is working on an annual basis, and that help the agency determine whether it needs to be more or less aggressive in the kinds of tools and efforts it is undertaking to remedy the ongoing effects of discrimination

Current programmatic and functional efforts lack impact on the level of procurement and contracting operations that can lead to real and sustained change in organizational culture and practices. Failure to achieve this sustained change can result in barriers for DBEs wanting to do business with the COK. Furthermore, the effectiveness of COK's programmatic efforts will not be maximized until underlying organizational issues, impacting the inclusiveness of COK's procurement operations, are addressed.

Many of the recommendations below focus on city-wide organizational changes that can lead to enhancements to COK's procurement system to allow it to become more inclusive. The recommendations for inclusion do not depend on the COK's decision to employ race- and gender-conscious or race- and gender-neutral programmatic initiatives. When implemented, these recommendations will also enhance the effectiveness of DBE inclusion initiatives. To fully implement these recommendations, the COK should be able to "track" its procurement- and contracting-related decision-making points to more effectively determine if the COK's current practices in any way promote active or passive discrimination or other exclusionary practices.

M³ Consulting recommends COK's leadership commit to enhance the City's effort for DBE inclusion by supporting initiatives carried out by SBDO Office and Purchasing Division and encourage departments to embrace the organization-wide usage of race/gender-conscious and race/gender-neutral strategies. The degree of responsiveness of DBE vendors often correlates to the public entity's degree of commitment to inclusion in which these firms are pursuing contracting opportunities. M³ Consulting recommends the COK develop an implementation plan for the adopted recommendations and share publicly as a demonstration of intentionality.

B. The Nature of the COK's Centralized Procurement Process and Impact on DBE Participation

M³ Consulting does not advocate for a centralized or decentralized procurement process. We seek to determine the impact of either process on the ability of DBEs to contract with a public entity. Without appropriate infrastructure, management and operational support, an unwieldy bureaucracy can be created that serves as a de facto barrier to DBEs.

COK's Purchasing Division serves as the focal point of their mostly center-led purchasing structure. The Purchasing Division is responsible for developing purchasing policies and

standard operating procedures for the entire municipality. M³ Consulting found that the policies are well organized and made available throughout the organization. Some departments and divisions maintain purchasing duties and responsibilities independent of the Purchasing Division.

While the SBDO Office within the Purchasing Division has the responsibility to monitor and report DBE activity across the enterprise M³ Consulting recommends the SBDO Office and the Purchasing Division work more collaboratively with buying departments' leadership to ensure COK's DBE policy and practices are adhered to. This includes leveraging technologies that enable regular DBE monitoring and spend reporting to flow from the Departments to the Purchasing Division offices.

C. Identify Community Economic Development and Inclusive Procurement Objectives

The Purchasing Division and the Office of Small Business & Diversity Outreach (SBDO) Office must operate in a manner that is both consistent with the policy objectives established by the Mayor and City Council and programmatically sound. The COK can do so through striving toward inclusive procurement, which focuses in an ongoing manner on working to ensure that all vendors—regardless of race, ethnicity, gender, national origin, sexual orientation or disability—have the opportunity to bid – and win - the COK's procurement and contracting prime and subcontracting opportunities. Vendors should have a defined formal process and opportunity to learn from COK staff how to become more effective when unsuccessful in pursuing opportunities, thereby participating in the economic prosperity of the Knoxville Metropolitan Statistical Area. In demonstrating best practices, M³ Consulting recommends developing an inclusive procurement environment that incorporates the following elements:

- **Mission Driven**—The procurement and DBE objectives are tied directly to the overall Vision, Mission and Goals of the COK.
- **Opportunity Driven**—The SBDO Office, along with the Purchasing Division, is driven by the COK's opportunities—identifying them, understanding them, managing them and communicating them.
- **Relationship Driven**—With the foundation that being opportunity driven provides, the COK will be in the relationship development business. The SBDO Office and the Purchasing Division will know

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its businesses that can do the COK's work and ask the business community to share its goal of inclusive economic development.

- **Data Driven**—Sound data and fully integrated systems will provide senior management with the information it needs to report on successfully meeting its objectives and maximizing economic development, equity and organizational performance, along with the other objectives established by the Mayor and City Council.

D. Training and Development

Organizations typically engage their staff in diversity training and sensitivity training. However, skills-based training is needed to create an inclusive procurement environment. We must emphasize that inclusivity is an integral part of an efficient procurement process. As such, to create a baseline of knowledge, M³ Consulting recommends that the following training should occur:

- All SBDO Office, Purchasing Division and other appropriate department staff should be provided with opportunities to pursue enhanced, ongoing training beyond standard procurement operations to include SMWBE engagement. M³ Consulting noted that the COK has staff who are members of the National Institute of Governmental Purchasing (NIGP) and hold CPP, CCPB, and CPPO certifications. M³ Consulting recommends that staff should also seek to obtain accreditation as certified compliance officers through organizations such as the American Contract Compliance Association.
- All COK staff engaged in procurement activity should attend a seminar on the components of a DBE program and collaboratively make strategies for achieving established objectives.

With appropriate training, the Purchasing Manager and SBDO Office Manager are then positioned to train on higher-level negotiating strategies and tactics in the various procurement categories consistent with the tenets of sound procurement laws and regulations.

E. Full Implementation of DBE Programmatic Initiatives

The responsibility for DBE participation is shared by both the COK and the vendor community. The COK should take steps to ensure that DBEs are involved in COK procurement opportuni-

ties at the prime level. Based on PO data, below the formal procurement threshold of \$25,000 where capacity is not an issue, the COK had prime MBE participation levels of less than 6%. The only exception to this was in Non-Professional Services where MBE participation was at 12.27%, driven mainly by Asian American-owned firms at 9.71%. WBEs fared slightly better with participations levels ranging from 4.54% in Non-Professional Services to 15.69% in Construction and Construction-Related Services.

M³ Consulting recommends the following for consideration as efforts the COK can undertake:

- Identify prime-level procurement opportunities where a significant pool of DBEs are available based on the NAISC code of the dominant trade area in the procurement;
- Establish prime-level DBE participation targets to ensure that the COK is focused on securing participation at the prime level, as well as subcontracting level;
- Consider the utilization of Small/Micro Business and sheltered market opportunities, where the availability of these firms supports doing so;
- Provide advance notice of specific small business opportunities the Knoxville vendor community (below the COK's formal procurement threshold of \$25,000) and ensure that DBEs are included in pool of firms being solicited;
- Consistently review pool of DBEs sub-bidders and subcontractors to determine those that have done a significant level of subcontracting with the COK and/or other public agencies, thereby building a track record to support prime level awards;
- Seek opportunities to unbundle larger contracts into smaller commercially viable contracting opportunities, where feasible and practicable;
- Consider the use of joint ventures on applicable contracting opportunities.
- Develop and encourage mentor/protégé program opportunities and recognize prime opportunities for distributors;
- Review and revise all technical specifications to exclude proprietary language that discourages DBEs from bidding; and,

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- Develop evaluation mechanisms for measuring the COK's staff's efforts toward DBE participation in the COK's contracting opportunities. This evaluation should extend across the COK enterprise.

F. Culture Audit

M³ Consulting recommends that the COK conduct a culture audit to assist the COK in moving toward an organizational culture that will more readily support the Mayor and City Council's Vision and Mission, as well as a more inclusive procurement environment. The culture audit will allow examination and explanation of the common rules of behavior and underlying beliefs of the COK that drive its organization and the way people approach their work. It also will assist in determining whether the COK's current organizational culture is an asset or liability in achieving its Vision and Mission and provides actual evidence for establishing the appropriate direction for the COK.

G. Address Data Capture Issues

Critical to creating an inclusive procurement operation for the COK is an efficient and integrated procurement data infrastructure. M³ Consulting recommends that the COK address the following data issues outlined below to support transparent monitoring, tracking, and reporting. Once these changes are implemented, M³ Consulting recommends that the COK update the statistical portion of the Study to capture FY2017–FY2021 data to provide both a more accurate reflection of DBE utilization at prime and subcontractor levels and as a test case for its SMWBE data capture process.

1. Expand data capture on vendor portal by classifying the entry of NIGP and NAICS codes as a required field during vendor registration
2. Mandatory completion of all applicable DBE forms during the bid solicitation process
3. Assign commodity codes to bids.
4. Consider removal of monthly charge and further utilization of e-procurement or online bid portal to capture bid and quote information
5. Consider activating subcontractor modules in Oracle or utilizing an off-the-shelf DBE tracking system
6. Develop computerized formats for evaluation score sheets

7. Track awards, commitments, and payments separately
8. Develop real-time performance dashboards to support data-driven decisions.

H. Budgeting, Forecasting and Scheduling

While COK currently engages in a number of outreach efforts that seek to notify and inform the vendor community, on a quarterly basis, the COK should develop a forecasting process appropriate for each procurement category that provides project information necessary for planning its activities as it relates to DBE participation. With budgeting and forecasting information, the COK can begin to (a) project the impact of the COK's purchases on economic, business and employment growth in the Knoxville, TN Metropolitan Statistical Area (MSA), (b) conduct networking and matchmaking sessions, and (c) identify areas where increases in local capacity is needed among both DBEs and Non-DBEs to begin capacity building efforts well ahead of when the contraction opportunities come to fruition.

E.4.3 Long-Term Availability and Capacity-Building Initiatives

The recommendations in this section are focused on how the COK can utilize both its resources and opportunities to contribute to the growth and development of SMWBEs. To increase opportunities for SMWBEs, the COK must start with the consideration of available firms.

A. Increasing Pipeline of SMWBEs

1. The Starting Point: Youth Entrepreneurship

Entrepreneurship requires a certain skill set that is cultivated over time. Young people with no access to education and training are less likely to obtain these skill sets on their own. By the time these young people may have an opportunity to obtain these skills, they are close to adulthood and well behind young people who have access to parents with entrepreneurial and/or managerial skill sets.

The COK is in an invaluable position to impact values, behaviors and attitudes toward discrimination and bias, and cultivate a culture of youth entrepreneurship. Collaborating with local school systems to work to invest in students early allows communities previously excluded based on race and gender to expand social capital. Furthermore, it allows the Knoxville community to begin to change the narrative of the historical,

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social and economic factors that have ultimately stunted the natural growth and development of entrepreneurs in these communities.

Efforts can include:

- Youth entrepreneurship and financial literacy programs;
- Mentorship and apprenticeship programs with COK and other public and private sector vendors/contractors/consultants;
- Targeted entrepreneurship career tracks, in conjunction with local technical colleges; and
- Expanded access to entrepreneurship and financial literacy programs to students' parents/family members.

Ultimately, these efforts will provide graduates of local school systems who become entrepreneurs access to the City's opportunities through Small/Micro programs, such as set-asides, sheltered markets and mentor/protégé. As long as they are available to all students, initiatives focused on students that have matriculated in schools in the Knoxville area would be considered race/gender-neutral, with a desired outcome of promoting economic and social development.

These initiatives should be combined with strong diversity initiatives. The focus should not simply be on anti-bias, but multiculturalism efforts that build social capital as well.

2. Refocus Certification and Pre-Qualification Efforts to Identification of Qualified Firms

As a general observation, a certification process focuses on identifying and verifying the race/gender/ethnicity of firms eligible to participate in race/gender-conscious programs. Pre-qualification processes involve pre-screening competing suppliers/contractors/vendors against a pre-determined set of criteria. The pre-qualification process itself can be exclusive and limit the number of available firms.

As such, in Construction, pre-qualification can be a contributory factor to low DBE attainment at the prime contractor level. This generally results in higher levels of DBE participation at the subcontractor level. The contract awards data analyzed during the study period for the COK indicates DBE participation deficits at both the prime and subcontractor levels.

Although, the COK rarely utilizes prequalification, when it is a necessary part of the COK procurement processes, the SBDO Office should work to ensure that pre-qualification and certification processes are not counter-productive to promoting inclusion.

The COK currently does not administer its own certification process but accepts certificates from other certifying bodies. Firms that opt to pursue the certificates indicate that they struggle to see the linkage between obtaining the certifications and successfully securing contracting opportunities.

Certification of firms as minority- or woman-owned is part of narrow tailoring, designed to ensure that only firms discriminated against have access to race/gender-conscious goal-based remedies. Because of a few non-DBEs that have attempted to illegally access these programs, over time, the certification application process has become increasingly burdensome to the DBEs that public entities are trying to reach. As a result, the certification process is increasingly seen as a bar that Minority and Women-owned Businesses should reach to gain access to these race and gender-conscious "benefits." Goals are a remedy, not a benefit. This framing of goals and how the certification process supports the "remedy" should be included in the COK's training protocols. Furthermore, a burdensome certification process can reduce the number of available MWBEs.

As a matter of practice, when the COK staff and prime vendors search for available Minority and Women-owned businesses, they should have the benefit of the largest pool of MWBEs that are available. Firms that may be capable of executing the work, may not be considered because they cannot be counted toward goal attainment. The SBDO Office should work collaboratively with MFTA providers and others, to provide the vendor community with resources to assist with preparing for and navigating the processes for COK's accepted certifying bodies.

M³ Consulting supports inclusion efforts by providing the master directory of DBE firms compiled for the study. While all the firms appearing on the lists may not meet the RWASM standard, the firms on these lists represent a starting point for the curation of the COK's pipeline of available firms. M³ Consulting recommends, the SBDO office:

- Review the compiled list of community organizations, Chambers of Commerce and Management and Technical Assistance (MFTA) providers in the study to determine whether the list is comprehensive. To construct the most exhaustive list of firms, organiza-

tions with private membership lists should also be encouraged to participate.

- For vendors/contractors on the provided Master DBE list that are not certified, COK could outreach to them or conduct survey to obtain data on type of goods and services they provide and further gauge their interest in doing business with the COK.
- Create and institute measures of the COK's progress toward increasing the number of certified and prequalified firms.
- For those available firms that do not meet DBE inclusion policy and pre-qualification requirements, work to include as many available firms as possible on the COK vendor registry and in the COK's race- and gender-neutral programs, and then collaborate with MFTA provides to develop targeted race and gender-neutral initiatives aimed to grow these firms' capabilities accordingly.

B. Expanding Competition

Modeling federal statute 49 CFR Part 26.33, the COK should monitor its contracts to ensure that DBEs are not overly concentrated in certain procurement areas as a means of the COK meeting its DBE goals. Contracts should be continuously reviewed to ensure that (1) the same Non-DBEs and DBEs are not securing a significant percentage of the COK contracts and that (2) the same DBEs are not accounting for a significant percent of the COK's MBE, WBE and SBE participation. Concentration can be addressed in the following ways:

- Ensure that there is no steering of contracts at the prime or subcontractor levels;
- Expand pool of available firms;
- Expand capacity of available firms; and
- Ensure that firms repeatedly submitting low bids are not requesting change orders post-award or providing substandard work.

M³ Consulting recommends the COK to constantly monitor its contracting activity to determine whether contract awards are concentrated among a small group of firms and design strategies to increase the level of competition on the COK procurement and contracting opportunities.

1. Deeper Dive of Bid, Request for Proposal and Selection and Evaluation Process

The COK should consider a deeper dive into bid, request for proposal (RFP), and selection and evaluation results to ensure that the outcomes reflected in the Availability and Utilization chapters reflect a procurement process that is open, fair, transparent and inclusive. This deeper dive to review actual practices would include a review by an independent party of bid and award documents for individual opportunities. These documents include vendor solicitation, bid tabulations, inclusiveness of persons chosen for selection committee, evaluation score sheets, GMP negotiation documents (if utilized), prime contractor selection and evaluation score sheets for subcontractors, and/or prime contractor solicitation list for subcontractors. This deeper dive would also provide greater insight into the competitiveness of different race/gender/ethnic groups and provide the SBDO Office with additional information on which group to target and customize specific outreach and support efforts.

2. Goal Setting and Other DBE Tools Applied by Threshold

M³ Consulting's threshold utilization analysis suggests that, where capacity is not an issue, certain race/ethnic/gender groups are still reflecting disparity. The threshold utilization analysis was based on PO data.

In conducting this spend analysis, the COK should obtain a greater understanding of the individual opportunities and the dollar values associated with them. The spend analysis allows the COK to review individual opportunities by size. This process is different from unbundling, where the organization starts with the larger contracts and attempts to unbundle them. For example, for projects under \$100K, there would be no need to unbundle contracts because there likely would not be multiple trades and work scopes tied to the relatively small contract amount. Instead, the COK should utilize other techniques, such as small business sheltered markets, to increase participation levels of DBEs.

When individual opportunities are sorted by size, appropriate programmatic efforts by the SBDO Office can be established. Furthermore, there is more transparency in contracts awarded, particularly on contracts where more firms are fully capable of competing.

3. Assess Performance of Personnel with Buying Authority

At the end of the day, increasing SMWBE participation in the COK falls to the COK personnel making the buy decision. When new e-procurement systems are implemented, the COK should be able to track the performance of individuals with buying authority to determine the degree to which they are making inclusive purchasing decisions. The individual track record can be considered in annual or semiannual performance evaluations as a means to achieve organizational goals not as a determinant for continued employment.

E.4.4 Expanded DBE Initiatives

Based on the outcomes of the disparity analysis, the procurement analysis and anecdotal/race-neutral testimony, the SBDO Office should consider the following:

- A. Promoting DBE participation at the prime contractor level
- B. Develop DBE program that addresses requirements of large construction and development projects
- C. Implement small business set-asides and sheltered market projects
- D. Address concerns about slow payments
- E. Remove barriers related to bonding and insurance program requirements
- F. Track joint ventures, mentor/protégé programs, and distributorships participation
- G. Facilitate effective matchmaking and outreach programs
- H. Institute monitoring and tracking reporting for overall and project-by-project activities
- I. Define and socialize post-award compliance responsibilities
- J. Leverage technical assistance providers services and members
- K. Consider working with financial institutions to assist DBEs with access to capital.



E.5 SUMMARY

In summary, M³ Consulting, Inc. found that COK's purchasing activities suggest that DBEs continue to have some difficulties obtaining significant contracts with the COK. In submitting specific findings within the Study for the COK, M³ Consulting formulated recommendations that allow the COK to rely upon race/gender-conscious means when necessary to address ongoing hindrances to eliminate disparities, while also addressing DBE participation through race/gender-neutral efforts. Our economic and statistical utilization analyses could serve as part of the policy- and procedure-making decisions needed to ensure enhanced and legally defensible DBE participation in the COK's purchasing processes and opportunities.